

DRAFT 2024 Demand Side Management Annual Report

Enbridge Gas Ontario

April 1st, 2025

Table of Contents

Table of Contents	1
List of Tables	3
Executive Summary	5
1. Introduction	7
2. DSM Framework	8
2.1 2023-2025 DSM Plan	8
2.2 Scorecard Target Setting	10
2.3 Evaluation Governance	10
2.4 Cost-Effectiveness Screening	11
2.5 Avoided Cost Assumptions	11
2.6 Technical Resource Manual	12
2.7 Integrated Resource Planning	13
2.8 Indigenous Engagement	15
3. OEB Data Reporting Requirements	16
4. Programs and Offerings	26
4.1 Residential Program	26
4.1.1 Residential Whole Home Offering	26
4.1.2 Residential Single Measure Offering	31
4.1.3 Residential Smart Home Offering	32
4.2 Low-Income Program	34
4.2.1 Home Winterproofing Offering	34
4.2.2 Affordable Housing Multi-Residential Offering	35
4.3 Commercial Program	38
4.3.1 Commercial Custom Offering	38
4.3.2 Prescriptive Downstream Offering	40
4.3.3 Direct Install Offering	40
4.3.4 Prescriptive Midstream Offering	42
4.4 Industrial Program	44
4.4.1 Industrial Custom Offering	44
4.5 Large Volume Program	46
4.5.1 Direct Access Offering	46
4.6 Energy Performance Program	47

4.6.1	Whole Building Pay for Performance Offering	47
4.7	Building Beyond Code Program	49
4.7.1	Residential Savings By Design Offering	49
4.7.2	Commercial Savings By Design Offering	50
4.7.3	Affordable Housing Savings By Design Offering	51
4.7.4	Commercial Air Tightness Testing Offering	51
5.	Evaluation	53
5.1	Impact Evaluation and Audit	53
5.2	Process Evaluation	53
5.2.1	Process Evaluation of the Smart Home Offering	53
6.	Results and Spend	55
6.1	Scorecard Results and Shareholder Incentive	55
6.2	Lost Revenue Adjustment Mechanism	58
6.3	Cost-Effectiveness Results	59
6.4	Weighted Average Measure Life	60
6.5	End-of-Term Natural Gas Reduction Incentive	61
6.6	Budgets and Spending	62
6.6.1	Municipal Engagement	63
6.6.2	Research and Development	64
Appendix A: 2024 Avoided Costs		67
Appendix B: 2024 Target Setting Methodology		71
Appendix C: Offering Details		73
Appendix D: Abbreviations and Acronyms List		97
Appendix E: Smart Home (Adaptive Thermostat) Process Evaluation		98

List of Tables

Table ES1	2024 DSM Draft Results, Budgets, and Spend Summary	5
Table ES2	2024 Draft Natural Gas Savings	6
Table 2.0	2024 DSM Portfolio	9
Table 3.0	Annual and Long-Term DSM Budgets (\$/year and \$/plan term) (\$ million)	16
Table 3.1	Actual Annual Total DSM Costs (\$ million)	17
Table 3.2	Historic Annual Total DSM Spending (\$ million)	18
Table 3.3	Historic Annual DSM Shareholder Incentive Amounts Available and Earned (\$ million)	18
Table 3.4	DSM Shareholder Incentive Earned as a Percent of DSM Spending	19
Table 3.5	Total Annual and Cumulative Natural Gas Savings for 2024 (Gross and Net) (million m ³)	19
Table 3.6	Total Historic Annual Natural Gas Savings (Gross and Net) (million m ³)	20
Table 3.7	Total Historic Cumulative Natural Gas Savings (Gross and Net) (million m ³)	20
Table 3.8	DSM Spending as a Percent of Distribution Revenue	21
Table 3.9	Historical Annual Natural Gas Savings Targets (million m ³)	21
Table 3.10	Total Annual Natural Gas Savings as a Percent of Total Annual Natural Gas Sales (Gross and Net)	22
Table 3.11	Total Cumulative Natural Gas Savings as a Percent of Total Annual Natural Gas Sales (Gross and Net)	23
Table 3.12	Total Natural Gas Sales Volumes (million m ³)	23
Table 3.13	Number of Customers by Customer Type	24
Table 3.14	Number of Customers by Rate Class	25
Table 4.0	HER+ Package Eligibility	27
Table 4.1	Residential Whole Home Offering Results	27
Table 4.2	2024 HER+ Gross Attribution Savings Transfer Between Enbridge Gas and NRCAN (m ³)	28
Table 4.3	2024 HER+ Forecasted and Draft Actual Participation	28
Table 4.4	2024 HER+ Measure Uptake	29
Table 4.5	2024 HER+ Cost Effectiveness	30
Table 4.6	2024 Residential Whole Home Forecasted and Actual Spending	31
Table 4.7	Residential Single Measure Offering Results	31
Table 4.8	Residential Smart Home Offering Results	32
Table 4.9	Home Winterproofing Offering Results	34
Table 4.10	Affordable Housing Multi-Residential Offering Results	35
Table 4.11	2024 AHMR Offering Results Distribution Between Private Market and Social Housing Participants	37
Table 4.12	Commercial Custom Offering Results	38
Table 4.13	Prescriptive Downstream Offering Results	40
Table 4.14	Direct Install Offering Results	41
Table 4.15	Prescriptive Midstream Offering Results	42
Table 4.16	Industrial Custom Offering Results	44
Table 4.17	Direct Access Offering Results	46
Table 4.18	Whole Building Pay for Performance Offering Results	47
Table 4.19	Residential Savings by Design Offering Results	49
Table 4.20	Commercial Savings by Design Offering Results	50
Table 4.21	Affordable Housing Savings by Design Offering Results	51
Table 4.22	Commercial Air Tightness Testing Offering Results	52
Table 6.0	2024 Maximum Shareholder Incentive and Achievement by Scorecard	55
Table 6.1	2024 Residential Program Scorecard Results	55
Table 6.2	2024 Low-Income Program Scorecard Results	56
Table 6.3	2024 Commercial Program Scorecard Results	56
Table 6.4	2024 Industrial Program Scorecard Results	56
Table 6.5	2024 Large Volume Program Scorecard Results	57

Table 6.6	2024 Energy Performance Program Scorecard Results	57
Table 6.7	2024 Building Beyond Code Program Scorecard Results	57
Table 6.8	2024 LRAM Statement	58
Table 6.9	2024 TRC-Plus Summary	59
Table 6.10	2024 Weighted Average Measure Life Calculation	60
Table 6.11	Annual Natural Gas Throughput Comparison	61
Table 6.12	2024 Budget/Spend/Variance	62

Executive Summary

Enbridge Gas Ontario (“Enbridge Gas” or “the Company”) reports 161.2 million net annual cubic metres of natural gas saved from its Demand Side Management (“DSM”) activities in 2024. A summary of the Company’s 2024 DSM results, budgets and spend is provided in Table ES1 below. Furthermore, Table ES2 provides a breakdown of natural gas savings by offering.^{1,2}

Table ES1 2024 DSM Draft Results, Budgets, and Spend Summary

Item	Amount
Net Annual Natural Gas Savings*	161,300,984 m ³
Budget	\$183,081,927
Actual Spend	\$302,109,812
Shareholder Incentive Achievement	\$12,467,306
Lost Distribution Revenue	\$262,076

* Net Annual Natural Gas Savings refers to first-year net natural gas savings.

¹ Results in Table ES1 only include offerings measured by Net Annual Natural Gas Savings.

² Values presented throughout this report may not precisely equal the totals provided due to rounding.

Table ES2 2024 Draft Natural Gas Savings

Program	Offering	Gross Annual Natural Gas Savings (m³)	Net Annual Natural Gas Savings (m³)
Residential	Residential Whole Home Offering	55,418,253	52,647,340
	Residential Single Measure Offering ¹	0	0
	Residential Smart Home Offering	3,828,901	3,675,745
Residential Total		59,247,154	56,323,086
Low-Income	Home Winterproofing Offering	3,877,359	3,877,359
	Affordable Housing Multi-Residential	4,029,138	4,029,444
Low-Income Total		7,906,803	7,906,803
Commercial	Commercial Custom Offering	25,266,062	18,158,086
	Prescriptive Downstream Offering	4,900,503	2,272,751
	Direct Install Offering	5,052,865	4,802,435
	Prescriptive Midstream Offering	1,905,441	1,580,481
Commercial Total		37,124,871	26,813,752
Industrial	Industrial Custom Offering	79,508,543	56,413,003
Industrial Total		79,508,543	56,413,003
Large Volume	Direct Access Offering	47,160,941	13,568,203
Large Volume Total		47,160,941	13,568,203
Energy Performance	Whole Building Pay for Performance (P4P) Offering	276,138	276,138
Energy Performance Total		276,138	276,138
Portfolio Total		231,224,450	161,300,984

¹The Residential Single Measure Offering was not in market for 2024. See Section 4.1.2 for more information.

1. Introduction

Enbridge Gas has been designing and delivering DSM programs under Ontario Energy Board (“OEB”) frameworks for nearly 30 years. Since 1995, Enbridge Gas has saved its customers 35.7 billion lifetime cubic metres of natural gas. These gas savings have resulted in a reduction of 67.1 million tonnes of greenhouse gas emissions.³

The Draft 2024 DSM Annual Report provides a summary of Enbridge Gas’s DSM activities and results during the 2024 program year, including:

- A summary of the 2023 DSM Framework⁴ (“2023 DSM Framework”, “Framework”) as it relates to the 2024 program year (Section 2).
- OEB data reporting requirements (Section 3).
- Program and offering summaries, including offering results, offering changes, lessons learned and anticipated offering changes for 2024 (Section 4).
- Evaluation activities (Section 5).
- Results, including scorecard results, shareholder incentive achievement, lost distribution revenue calculations, cost-effectiveness, Weighted Average Measure Life (“WAML”), the End-of-Term Natural Gas Reduction Incentive, and budgets and spending (Section 6).

The 2024 program year marked the second year of implementation for the 2023-2025 DSM Plan (“2023-2025 DSM Plan”) and was a successful year. In particular, more than 100,000 Ontarians were participants in the HER+ offering, a residential offering jointly funded by Enbridge Gas and National Resources Canada. Despite the success, there were also some broad challenges. Elevated inflation and interest rates continued to pressure Ontario residents, businesses, and industry, limiting their opportunities for participation. Enbridge Gas responded to these challenges with advanced marketing techniques, compelling incentive offers, new and innovative measures, and more, as described throughout this report.

On March 15th, 2025, the Government of Canada announced that it will be setting the fuel charge under the Greenhouse Gas Pollution Pricing Act and regulations to zero (effectively removing the Federal Carbon Charge) as of April 1st, 2025.⁵ In order for this draft annual report to be filed on April 1st, 2025, it was largely prepared prior to the Government of Canada’s announcement. Further, this report is a reflection of the 2024 program year, which was not affected by this announcement. Changes that may be required for the 2025 program year are not reflected in this report.

Outcomes achieved are presented in Table ES1 (Executive Summary) and throughout this report.

³ Assumes 1.874kg of CO₂e are emitted for each m³ of gas that is consumed up to 2021 and 1.932kg of CO₂e factor 2022 onward.

⁴ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E.

⁵ <https://canadagazette.gc.ca/rp-pr/p2/2025/2025-03-15-x2/pdf/q2-159x2.pdf>

2. DSM Framework

On May 3rd, 2021, Enbridge Gas filed an application which consisted of a proposed DSM Framework, effective 2022, and a six-year DSM Plan for 2022-2027.⁶ In August 2021, the OEB directed the continuation of Enbridge Gas's 2021 DSM Plans into 2022 and provided performance scorecards to be used for the duration of 2022.⁷

Following this Decision, Enbridge Gas refiled an application on September 29th, 2021, seeking approval of the Proposed DSM Framework, effective 2023, and a five-year plan to be in place from 2023 to 2027.⁸ On November 15th, 2022, the OEB published its Decision and Order ("Decision") approving a revised Natural Gas DSM Framework as well as a three-year DSM term from January 1st, 2023, to December 31st, 2025.⁹ In its Decision, the OEB noted that the "DSM Policy Framework builds on past guidance and instructions and summarizes the policy guidance from this Decision and Order."¹⁰

The 2023 DSM Framework "makes updates to various elements of previous OEB policy regarding ratepayer funded DSM, namely two companion documents – the Demand Side Management Framework for Natural Gas Distributors (2015-2020) and the Filing Guidelines to the Demand Side Management Framework for Natural Gas Distributors (2015-2020) and is intended to provide guidance to DSM planning and execution."¹¹ Updates introduced in the 2023 DSM Framework include:

- The maximum shareholder incentive available related to annual performance scorecards will increase annually in alignment with Consumer Price Index inflationary increases.
- Enbridge Gas is eligible for an End-of-Term Natural Gas Reduction Incentive, the intent of which is to motivate the Company to make "meaningful action towards the objective of DSM, which is that DSM programs should result in meaningful reductions in overall annual natural gas sales volumes."¹² See Section 6.5 for more information on the End-of-Term Natural Gas Reduction Incentive.
- A change in the annual performance scorecards' primary measurement metric from Net Cumulative Cubic Metres ("CCM", "lifetime natural gas savings") to Net Annual Cubic Metres ("Annual m³", "net annual natural gas savings"). Net Annual Cubic Metres refers to first-year net natural gas savings.

Further updates are contained within the OEB's Decision and Order. These include:

- Instituting a minimum WAML threshold of 14 years applicable to all offerings, excluding the Large Volume Direct Access offering. See Section 6.4 for more information about the WAML.
- The creation of a new DSM Stakeholder Advisory Group ("SAG") led by OEB staff, of which the Evaluation Advisory Committee ("EAC") will become a subcommittee. See Section 2.3 for more information about the EAC.

2.1 2023-2025 DSM Plan

On January 1st, 2019, Enbridge Gas Distribution Inc. and Union Gas Limited amalgamated to become Enbridge Gas Inc. Throughout 2024, Enbridge Gas's parent company, Enbridge Inc., acquired multiple utilities in separate jurisdictions, and Enbridge Gas operating in Ontario is now referred to as Enbridge Gas Ontario, though the Company may be referred to as Enbridge Gas for simplicity. Up until the end of 2022, Enbridge Gas continued to operate and report on two DSM portfolios independently to reflect the manner in which programs, scorecards, metrics, targets and budgets were approved by the OEB. The 2023 program year marked the first year Enbridge Gas delivered a fully harmonized DSM portfolio, including budgets, targets, and program design and delivery.

Within the 2023 DSM Framework, the OEB outlined the stipulations and allowances for Enbridge Gas to re-allocate funds between approved DSM programs, as well as guidance to apply to the OEB for approval to re-allocate funds from OEB-approved DSM programs

⁶ Multi-Year Demand Side Management Plan (2022-2027), EB-2021-0002, May 3rd, 2021.

⁷ Decision and Order Related to 2022 Natural Gas Demand Side Management Activities, EB-2021-0002, August 26th, 2021.

⁸ Multi-Year Demand Side Management Plan (2022-2027) Updated Evidence, EB-2021-0002, September 29th, 2021.

⁹ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022.

¹⁰ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Section 4.1, p. 16.

¹¹ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 1.

¹² Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 8.

to new programs that are not a part of the DSM Plan and have not previously been approved. Such guidance “is meant to ensure that adequate flexibility in DSM program and portfolio design is maintained, while recognizing that Enbridge Gas is ultimately responsible and accountable for its actions. This flexibility should ensure that Enbridge Gas can appropriately react to and adapt with current and anticipated market developments.”¹³

The structure of the 2024 DSM Portfolio is shown in Table 2.0 below. Each program has its own scorecard and includes one or more offerings. Offerings are bundles of energy efficiency measures, initiatives, and/or services.

Table 2.0 2024 DSM Portfolio

DSM Scorecard	DSM Offering
Residential Program	Residential Whole Home
	Residential Single Measure*
	Residential Smart Home
Low-Income Program	Home Winterproofing
	Affordable Housing Multi-Residential
Commercial Program	Commercial Custom
	Prescriptive Downstream
	Direct Install
	Prescriptive Midstream
Industrial Program	Industrial Custom
Large Volume Program	Direct Access
Energy Performance Program	Whole Building Pay for Performance (P4P)
Building Beyond Code Program	Residential Savings by Design
	Commercial Savings by Design
	Affordable Housing Savings by Design
	Commercial Air Tightness Testing

* The Residential Single Measure Offering was not in market for 2024. See Section 4.1.2 for more information.

¹³ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 9.

2.2 Scorecard Target Setting

In its Decision,¹⁴ the OEB outlined the 2023 scorecard targets. Subsequently, with the exception of the Energy Performance Program,¹⁵ targets for programs measured by net annual natural gas savings (m³) were determined using the Target Adjustment Mechanism (“TAM”) methodology, as defined in the Framework.¹⁶

Please see Appendix B for the 2024 target setting methodology and Section 6 for 2024 scorecard targets and results.

2.3 Evaluation Governance

As outlined in the 2023 DSM Framework, the OEB noted “as was initiated in the 2015 Framework, the OEB assumed the coordination function of the EM&V process, outlined a DSM Evaluation Governance Structure, and established the EAC.”¹⁷

The 2023 DSM Framework defined and specified accountability for six activities as part of Evaluation, Measurement & Verification (“EM&V”). These six activities are summarized below:

- Gross Measurement: this Enbridge Gas accountability refers to the methods Enbridge Gas uses to determine “gross resource savings claimed by a DSM program offering.”¹⁸ Enbridge Gas will file a letter to the OEB in the event that it recommends a fundamental change to gross measurement approaches. The OEB noted that “any impact evaluation undertaken will typically align with the gross measurement approach, however, the final evaluation methodologies will be determined independently, usually by the OEB’s Evaluation Contractor (“EC”) or similar independent evaluation expert retained by the OEB.”¹⁹
- Draft and Final DSM Annual Reports: Enbridge Gas will continue to be accountable for the annual reporting of DSM activities and results. Enbridge Gas will produce Draft and Final DSM Annual Reports, where the Draft DSM Annual Report will assist the EC during the annual verification process and the Final DSM Annual Report is filed once the annual verification process is complete.
- EM&V Plan: the OEB is accountable for the EM&V Plan, which is produced by the EC with input from the EAC. The EM&V Plan will outline planned EM&V activities and their objectives and will include any planned Process Evaluations to be undertaken by Enbridge Gas.
- Impact Evaluation and Annual Verification of DSM Results: coordinated by the OEB, the EC will perform annual verification activities, providing the EAC and Enbridge Gas an opportunity to propose revisions or comment prior to the finalized Annual Verification Report. This accountability belongs to the OEB.
- Technical Resource Manual (“TRM”) updates: the OEB is accountable for the TRM update process. This process consists of adding or removing prescriptive DSM measures or updating input assumptions to current prescriptive measures.
- Process Evaluation: with the goal of continuous improvement in mind, ongoing assessments of the effectiveness of DSM offerings that are typically qualitative in nature are the accountability of Enbridge Gas.

Beginning in 2023, the OEB created the DSM SAG led by OEB staff that will subsume the existing EAC as a subcommittee to inform the development of the next DSM plan.²⁰

In 2024, the OEB-appointed non-utility stakeholder members of the EAC were:

- Robert Wirtshafter, Wirtshafter Associates, Inc.
- Chris Neme, Energy Futures Group

¹⁴ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule C, p. i.

¹⁵ The Energy Performance Program includes a net annual natural gas savings metric that is predetermined through the 2023-2025 DSM Plan, as outlined in Schedule C of the Decision.

¹⁶ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 6.

¹⁷ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 15.

¹⁸ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 16.

¹⁹ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 16.

²⁰ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Section 3.1, p. 12.

- Katherine Johnson, Johnson Consulting Group
- Dan Violette, Apex Analytics LLC

Non-utility stakeholders are expected to provide input and advice based on their experience and technical expertise, and not to advocate for the position of parties they have represented before the OEB in various proceedings.

2.4 Cost-Effectiveness Screening

Cost-effectiveness screening for the 2023 DSM Framework uses an enhanced Total Resource Cost test, called the “TRC-Plus” test, which includes a 15% adder to account for the non-energy benefits of DSM, such as improvements to the environment, economy and society.

For programs measured by net annual natural gas savings, excluding low-income programs, the program is considered cost-effective if the ratio of the present value of the TRC-Plus benefits to the TRC costs exceeds 1.0. To recognize that low-income programs may result in additional benefits not captured by the TRC-Plus test, low-income programs are screened using a TRC-Plus ratio threshold of 0.7. The Energy Performance and Building Beyond Code programs are assessed on the objectives of the program and are not tested against a TRC-Plus ratio threshold.

The TRC-Plus test is used to screen for cost-effectiveness at the program and portfolio level. See Section 2.1 for the 2024 DSM portfolio structures and Section 6.3 for the 2024 TRC-Plus test results.

2.5 Avoided Cost Assumptions

Avoided cost assumptions reflect “the benefit of not having to provide an extra unit of supply of natural gas, or other resources...through the delivery of DSM programs.”²¹ For more information on avoided cost assumptions, please refer to Section 11 of the 2023 DSM Framework.

The 2024 avoided cost assumptions can be found in Appendix A. As per the direction provided in the 2023 DSM Framework²², Enbridge Gas includes the avoided cost of carbon within its avoided cost assumptions (in addition to the avoided costs of natural gas, electricity and water).

²¹ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 33.

²² Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 33.

2.6 Technical Resource Manual

The TRM provides prescribed assumptions (including energy savings, costs, and measure lives) for several energy efficient technologies. Enbridge Gas uses the TRM as the basis for prescriptive and quasi-prescriptive measures offered to customers. For more information on the TRM, please refer to the summary provided at the outset of the TRM.²³

The TRM is reviewed annually by the EC to make appropriate updates or revisions to existing measures, add new measures, or retire measures which are no longer relevant.

For the purpose of determining 2024 shareholder incentives for prescriptive and quasi-prescriptive measures, TRM Version 8.0 has been used (dated April 30th, 2024). This version was updated by the EC with input from Enbridge Gas and the rest of the EAC, and reflects the following changes:

- Added a new substantiation document for:
 - Commercial condensing storage water heaters (new construction and time of natural replacement)
 - Commercial condensing unit heater (new construction and time of natural replacement)
 - Commercial condensing tankless water heater (new construction and time of natural replacement)
 - Commercial kitchen demand controlled ventilation (new construction and time of natural replacement)
 - Commercial kitchen demand controlled ventilation (retrofit)
- Updated Common Assumptions:
 - Effective full load hours. These changes impact measured gas savings for the commercial condensing unit heater measure.

For the purpose of determining 2024 lost distribution revenue for prescriptive and quasi-prescriptive measures, TRM Version 8.0 has been used.

Versions of the TRM up to Version 6.0 can be accessed on the OEB website (<https://www.oeb.ca/industry/policy-initiatives-and-consultations/natural-gas-demand-side-management-dsm>) under the section “Technical Resource Manual (including Historical Measures and Assumptions Updates)”.

TRM Version 7.0 and all subsequent versions are accessible on the Natural Gas Conservation Evaluation Advisory Committee section of the OEB Engage with Us website (<https://engagewithus.oeb.ca/natural-gas-conservation-evaluation-advisory-committee>).

²³ <https://www.rds.oeb.ca/CMWebDrawer/Record/853639/File/document>

2.7 Integrated Resource Planning

Background

Integrated Resource Planning (“IRP”) is a planning strategy and process that considers the implementation of alternatives to address the system needs of Enbridge Gas’s regulated operations. In July 2021, the OEB issued its decision on Integrated Resource Planning and as part of that decision, as it relates to DSM, the OEB found that potential merging of DSM with programs aimed at reducing peak demand to meet system needs was premature.²⁴

Separately, in the OEB’s Decision approving the 2023-2025 DSM Plan, the OEB stated that it “expects that any IRP activities pursued that include demand side programming (e.g., geotargeted energy efficiency) should be discussed, at least at a high-level, as part of Enbridge Gas’s DSM Annual Report so that all stakeholders are made aware.”²⁵ This section of the report serves to document IRP activities undertaken with respect to demand side programming.

One of the demand side IRP alternatives (“IRPAs”) considered under the IRP Framework is geotargeted energy efficiency, also known as enhanced targeted energy efficiency (“ETEE”) programs. ETEE programs focus on achieving necessary reductions in a specific geographical area to reduce peak period system demands. ETEE programs may include enhancing existing broad-based DSM offerings through additional incentives and targeted marketing, or introducing new geotargeted programs not offered through broad-based DSM. The mix of offerings and measures utilized in an ETEE program is dependent on the scope of the facility investment project under consideration and customer characteristics in the specific area.

Another demand side IRPA considered under the IRP Framework is demand response (“DR”). DR programs seek to adjust the demand for natural gas by end users instead of adjusting facilities or gas supply. DR includes programs for residential, commercial, and industrial customers, which are designed to incent or oblige the customer to reduce or shift energy usage during peak periods.

IRP Demand Side Alternative Activities in 2024

As part of the OEB’s Decision on the IRP Framework, the OEB stated it expected the implementation of IRP pilot projects “to assist in understanding and evaluating how IRP can be implemented to avoid, delay or reduce facility projects.”²⁶ On July 19th, 2023,²⁷ Enbridge Gas filed an application with the OEB (EB-2022-0335) relating to two separate pilot projects: Parry Sound and Southern Lake Huron. The application was later updated in response to Natural Resource Canada’s (“NRCan’s”) discontinuation of the Canada Greener Homes Grant. In early 2024, Enbridge Gas requested the application remain in abeyance, and in March filed a letter requesting the OEB continue to hold the proceeding in abeyance as Enbridge Gas assessed the impacts of changes to the Company’s 10-year capital forecast resulting from the: (i) annual system reinforcement plan (“SRP”) update, (ii) annual energy transition adjustments update, which are applied to the Company’s 10-year demand forecast to reflect best available information in Ontario, and (iii) reduction in approved capital in the 2024 Rebasing Phase 1 (EB-2022-0200) Decision. In April, Enbridge Gas filed a letter with details regarding the planned changes it would be proposing for the application based on best available information and in consultation with the IRP Technical Working Group, with a subsequent update letter filed in June 2024. On June 28th, 2024, the updated Pilot Project application and evidence was filed with the OEB, where the updated application reflected major updates involving the withdrawal of the Parry Sound Pilot Project, and with programmatic components formerly exclusive to the Parry Sound Pilot Project shifting to the Southern Lake Huron Pilot Project. The Southern Lake Huron Pilot will focus solely on demand-side IRPAs, with a proposal to implement a suite of ETEE programming for residential, commercial, and industrial customers along with a residential DR offering. A summary of proposed demand side IRPA offerings for the Southern Lake Huron Pilot Project is detailed below.²⁸

²⁴ Decision and Order, Integrated Resource Planning Proposal, EB-2020-0091, July 22nd, 2021, Section 7, p. 34.

²⁵ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Section 4.11, p. 87.

²⁶ Decision and Order, Integrated Resource Planning Proposal, EB-2020-0091, July 22nd, 2021, Section 1, p. 9.

²⁷ As noted in the 2022 IRP Annual Report (2022 Utility Earnings and Disposition of Deferral & Variance Account Balances Application and Evidence, EB-2023-0092, June 14th, 2023, Exhibit H), there was insufficient time to deploy the IRP pilot projects by the end of 2022.

²⁸ Flexibility in pilot project ETEE elements has been sought in the application due to the uncertainty of the structure of some existing DSM offerings in market at the time of the Pilot Project ETEE implementation.

Southern Lake Huron Pilot Project

- ETEE:
 - Enhanced DSM for residential customers leveraging the Residential Whole Home offering.
 - Enhanced DSM for commercial customers leveraging the Commercial Custom, Prescriptive Downstream, and Direct Install offerings.
 - Enhanced DSM for industrial customers leveraging the Industrial Custom offering.
 - Limited residential electrification offering for cold climate air source heat pumps and ground source heat pumps leveraging the Residential Whole Home offering.
 - Limited advanced technology offering for simultaneous hybrid heating (residential), gas heat pumps (residential/commercial), and thermal energy storage (residential).
- DR:
 - Demand response program for residential customers with natural gas space heating equipment and a Wi-Fi connected smart thermostat.

For the Southern Lake Huron Pilot Project, Enbridge Gas outlined its attribution strategy between DSM and the ETEE programming in the application, where it was proposed that all incentives will be funded by the pilot project itself, with all results attributed to the pilot project's ETEE rather than to DSM programs. A general policy on DSM-IRP attribution will be considered in the first non-pilot IRP Plan application filed by Enbridge Gas.²⁹

As part of the IRP Framework, the OEB directed that an IRP Technical Working Group ("TWG") be established and led by OEB staff to provide input on IRP issues that will be of value to both Enbridge Gas in implementing IRP and to the OEB in its oversight of the IRP Framework. IRP TWG meetings were held on a regular basis throughout 2024 and included consultation on key elements of the pilot project, such as the update to the application, scope of the ETEE/DR programming, third-party evaluation, and engagement approach for commercial and industrial customers. Additional details can be found in publicly available documents on the OEB Engage with Us website for IRP (<https://engagewithus.oeb.ca/irp>).

On March 27th, 2025, the OEB issued a decision regarding the Southern Lake Huron Pilot Project ("IRP Pilot Decision"). It also initiated a proceeding on its own motion to review the IRP Pilot Decision (EB-2025-0124) and is launching a consultation to support a review and evaluation of its IRP Framework (EB-2025-0125).

²⁹ Updated IRP Pilot Application and Evidence, EB-2022-0335, June 28th, 2024, Exhibit D, Tab 1, Schedule 2, p. 2³⁰ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Section 4.1.7, p. 51.

2.8 Indigenous Engagement

In its Decision, the OEB emphasized the expectation that “Enbridge Gas will undertake greater stakeholder engagement with Indigenous representatives and document these interactions and the outcomes of the engagement sessions, to help inform its next DSM plan application.”³⁰

Throughout 2024, Enbridge Gas and the Independent Electricity System Operator (“IESO”) met monthly to discuss Indigenous DSM programming topics such as the co-delivery of Enbridge Gas’s Home Winterproofing (“HWP”) offering and the IESO’s Energy Affordability Program (“EAP”) and the collaborative promotion of these offerings at Indigenous community events.

Further, in 2024, Enbridge Gas worked with the Enbridge Gas Indigenous Working Group (“IWG”) to review DSM programming that would be beneficial to the Indigenous communities that are connected to Enbridge Gas’s system. This collaboration identified a significant interest in heat pump installations among Indigenous customers in these communities. A heat pump pilot strategy specifically for Indigenous Communities has been developed, and in 2025, Enbridge Gas will work with two Indigenous communities to implement this pilot.

³⁰ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Section 4.1.7, p. 51.

3. OEB Data Reporting Requirements

Section 3 provides the OEB’s reporting requirements for the 2024 program year, as per Section 8.2.1 of the 2023 DSM Framework.

Table 3.0 Annual and Long-Term DSM Budgets (\$/year and \$/plan term) (\$ million)

Program	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<u>Combined Enbridge Gas Distribution (“EGD”) and Union Rate Zones^{1,2}</u>									<u>Enbridge Gas³</u>	
Total DSM Budget	\$71.710	\$113.182	\$121.504	\$130.826	\$129.691	\$132.107	\$132.107	\$132.107	\$167.243	\$183.082

¹ The EGD and Union rate zones’ historical figures have been combined for simplified reporting notwithstanding their differing historical methodologies.

² Including rollovers, the combined 2015-2022 plan term total budget was \$921.3 million.

³ The 2023-2025 DSM plan term total approved budget in the Decision, prior to inflation adjustment, is \$525.5 million.

Table 3.1 Actual Annual Total DSM Costs¹ (\$ million)

Rate Class	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 ²	Draft 2024 ³
EGD Rate Zone											
Rate 1	\$23.507	\$26.856	\$42.391	\$44.206	\$50.048	\$54.977	\$47.997	\$52.903	\$57.468	\$62.129	\$173.029
Rate 6	\$13.901	\$15.646	\$17.001	\$17.463	\$17.616	\$21.564	\$17.201	\$18.564	\$16.010	\$21.811	\$27.883
Rate 9	\$0.002	\$0.002	\$0.002	\$0.002	\$0.003	\$0.003	\$0.002	\$0.003	\$0.002	\$0.000	\$0.000
Rate 100	-	-	-	-	-	\$0.370	\$0.072	\$0.136	\$0.016	\$0.069	\$0.288
Rate 110	\$1.190	\$1.900	\$1.251	\$1.462	\$0.918	\$0.937	\$1.398	\$1.081	\$1.417	\$3.882	\$3.619
Rate 115	\$0.567	\$0.658	\$0.532	\$0.588	\$0.274	\$0.930	\$0.449	\$0.621	\$0.449	\$0.239	\$0.149
Rate 125	\$0.064	\$0.069	\$0.076	\$0.086	\$0.110	\$0.099	\$0.087	\$0.095	\$0.093	\$0.168	\$0.207
Rate 135	\$0.124	\$0.059	\$0.086	\$0.384	\$0.407	\$0.301	\$0.583	\$0.501	\$0.267	\$1.376	\$1.206
Rate 145	\$0.254	\$0.152	\$0.084	\$0.090	\$0.551	\$0.084	\$0.073	\$0.106	\$0.180	\$0.029	\$0.098
Rate 170	\$0.458	\$0.403	\$0.574	\$0.176	\$0.176	\$0.285	\$0.267	\$0.163	\$0.268	\$0.445	\$0.671
Rate 200	\$0.022	\$0.024	\$0.026	\$0.030	\$0.038	\$0.034	\$0.030	\$0.033	\$0.032	\$0.041	\$0.086
Rate 300	\$0.004	\$0.005	\$0.005	\$0.006	\$0.007	\$0.007	\$0.006	\$0.006	\$0.006	\$0.001	\$0.000
Union Rate Zones											
M1	\$15.415	\$16.752	\$24.595	\$37.204	\$41.948	\$37.849	\$28.950	\$25.503	\$28.022	\$31.746	\$71.067
M2	\$6.728	\$4.958	\$6.847	\$8.166	\$7.851	\$8.297	\$6.055	\$7.146	\$5.114	\$5.615	\$6.555
M4	\$3.296	\$3.645	\$4.012	\$5.892	\$6.776	\$5.595	\$4.739	\$3.257	\$2.783	\$2.481	\$2.878
M5	\$2.394	\$1.421	\$2.580	\$1.459	\$0.657	\$0.563	\$0.278	\$0.407	\$0.262	\$0.295	\$0.312
M7	\$2.143	\$3.370	\$3.963	\$1.258	\$2.714	\$4.181	\$5.151	\$6.754	\$3.085	\$5.389	\$7.514
M9	-	-	-	-	-	-	-	-	-	\$0.017	\$0.029
M10	-	-	-	-	-	-	-	-	-	\$0.000	\$0.000
T1	\$1.078	\$0.889	\$1.486	\$2.578	\$1.962	\$0.834	\$0.896	\$0.323	\$0.717	\$0.399	\$0.746
T2	\$2.875	\$2.673	\$3.980	\$3.006	\$3.375	\$4.005	\$3.703	\$3.874	\$3.628	\$3.930	\$3.766
T3	-	-	-	-	-	-	-	-	-	\$0.107	\$0.129
Rate 01	\$4.161	\$3.555	\$4.689	\$6.209	\$7.403	\$6.696	\$4.321	\$4.581	\$3.789	\$5.472	\$11.212
Rate 10	\$1.613	\$0.953	\$1.394	\$2.144	\$1.829	\$1.820	\$1.250	\$1.363	\$1.040	\$1.633	\$1.218
Rate 20	\$1.791	\$1.005	\$0.851	\$1.554	\$0.312	\$1.194	\$0.759	\$0.541	\$0.787	\$1.215	\$1.572
Rate 25	-	-	-	-	-	-	-	-	-	\$0.076	\$0.081
Rate 100	\$1.517	\$0.799	\$0.573	\$0.809	\$0.820	\$0.708	\$1.267	\$0.831	\$0.776	\$0.736	\$0.261
Total	\$83.105	\$85.793	\$116.997	\$134.769	\$145.797	\$151.333	\$125.533	\$128.790	\$126.212	\$149.301	\$314.578

¹ Figures include all DSM spend, shareholder incentive and lost distribution revenue.

² 2023 DSM costs subject to OEB approval.

³ 2024 DSM costs subject to OEB approval.

Table 3.2 **Historic Annual Total DSM Spending (\$ million)**

Program	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 ²	Draft 2024 ³
<u>Combined EGD and Union Rate Zones¹</u>										<u>Enbridge Gas</u>	
Total DSM Spending	\$66.23	\$68.17	\$106.31	\$126.94	\$135.28	\$138.45	\$119.04	\$122.60	\$120.95	\$144.72	\$302.11

¹ The EGD and Union rate zones' historical figures have been combined for simplified reporting notwithstanding their differing historical methodologies.

² 2023 DSM costs subject to OEB approval.

³ 2024 DSM costs subject to OEB approval.

Table 3.3 **Historic Annual DSM Shareholder Incentive Amounts Available and Earned (\$ million)**

Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 ²	Draft 2024 ³
<u>Combined EGD and Union Rate Zones¹</u>										<u>Enbridge Gas</u>	
DSM Shareholder Incentive Earned	\$16.63	\$17.55	\$10.49	\$7.64	\$10.35	\$12.67	\$6.31	\$5.94	\$5.24	\$6.94	\$12.47
DSM Shareholder Incentive Available	\$21.69	\$22.09	\$20.90	\$20.90	\$20.90	\$20.90	\$20.90	\$20.90	\$20.90	\$20.90	\$22.32

¹ The EGD and Union rate zones' historical figures have been combined for simplified reporting notwithstanding their differing historical methodologies.

² 2023 DSM costs subject to OEB approval.

³ 2024 DSM costs subject to OEB approval.

Table 3.4 DSM Shareholder Incentive Earned as a Percent of DSM Spending

Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	Draft 2023 ³	Draft 2024 ³
Combined EGD and Union Rate Zones¹										Enbridge Gas	
DSM Shareholder Incentive Earned (\$ million)	\$16.63	\$17.55	\$10.49	\$7.64	\$10.35	\$12.67	\$6.31	\$5.94	\$5.24	\$6.94	\$12.47
Total DSM Spending (\$ million)	\$66.23	\$68.17	\$103.49	\$129.56	\$135.28	\$138.45	\$119.04	\$122.60	\$120.95	\$144.72	\$302.11
Shareholder Incentive Earned as a % of DSM Spending	25%	26%	10%	6%	8%	9%	5%	5%	4%	5%	4%

¹ The EGD and Union rate zones' historical figures have been combined for simplified reporting notwithstanding their differing historical methodologies.

² 2023 DSM costs subject to OEB approval.

³ 2024 DSM costs subject to OEB approval.

Table 3.5 Total Annual and Cumulative Natural Gas Savings for 2024* (Gross and Net) (million m³)

Scorecard	Annual Natural gas savings		Cumulative Natural gas savings	
	Gross	Net	Gross	Net
Residential Program	59.25	56.32	1,442.89	1,371.32
Low-Income Program	7.91	7.91	163.50	163.50
Commercial Program	37.12	26.81	571.32	364.13
Industrial Program	79.51	56.41	1,259.09	673.27
Large Volume Program	47.16	13.57	334.11	32.48
Energy Performance	0.28	0.28	2.76	2.76
Total	231.22	161.30	3,773.68	2,607.45

* 2024 DSM results subject to OEB approval.

Table 3.6 Total Historic Annual Natural Gas Savings (Gross and Net) (million m³)

Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 ²	Draft 2024 ³
<u>Combined EGD and Union Rate Zones¹</u>										<u>Enbridge Gas</u>	
Total <u>Net</u> Annual Natural Gas Savings	175.37	174.05	106.49	114.29	108.56	115.69	96.24	92.55	78.59	121.15	161.30
Total <u>Gross</u> Annual Natural Gas Savings	328.09	322.26	278.77	254.52	222.47	231.76	229.47	201.60	168.01	207.33	231.22

¹ The EGD and Union rate zones' historical figures have been combined for simplified reporting notwithstanding their differing historical methodologies.

² 2023 DSM costs subject to OEB approval.

³ 2024 DSM costs subject to OEB approval.

Table 3.7 Total Historic Cumulative Natural Gas Savings (Gross and Net) (million m³)

Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 ²	Draft 2024 ³
<u>Combined EGD and Union Rate Zones¹</u>										<u>Enbridge Gas</u>	
Total <u>Net</u> Cumulative Natural Gas Savings	2,609.30	2,576.93	1,796.55	1,963.91	1,931.99	2,075.86	1,632.22	1,654.92	1,385.89	1754.01	2,607.45
Total <u>Gross</u> Cumulative Natural Gas Savings	4,745.99	4,596.63	4,237.98	4,102.06	3,592.38	3,821.92	3,448.69	3,420.15	2,697.06	2,942.78	3,773.68

¹ The EGD and Union rate zones' historical figures have been combined for simplified reporting notwithstanding their differing historical methodologies.

² 2023 DSM costs subject to OEB approval.

³ 2024 DSM costs subject to OEB approval.

Table 3.8 DSM Spending as a Percent of Distribution Revenue

Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 ²	Draft 2024 ³
Combined EGD and Union Rate Zones¹										Enbridge Gas	
Total DSM Spending	\$66.23	\$68.17	\$106.31	\$126.94	\$135.28	\$138.45	\$119.04	\$122.60	\$120.95	\$144.72	\$302.11
Total Distribution Revenue (\$ million)	\$1,822.00	\$1,855.40	\$1,927.60	\$1,962.30	\$2,124.60	\$2,366.20	\$2,337.50	\$2,370.06	\$2,534.28	\$2,578.27	Information not available yet
DSM Spending as a % of Distribution Revenue	4%	4%	6%	6%	6%	6%	5%	5%	5%	6%	

¹ The EGD and Union rate zones' historical figures have been combined for simplified reporting notwithstanding their differing historical methodologies.

² 2023 DSM costs subject to OEB approval.

³ 2024 DSM costs subject to OEB approval.

Table 3.9 Historical Annual Natural Gas Savings Targets (million m³)

Scorecard	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 ¹	2024
<u>EGD Rate Zone</u>											
Resource Acquisition	992.1	1,011.9	631.1	806.5	805.5	734.3	755.5	747.5	736.4	N/A	
Low-Income	87.8	92.8	96.7	167.1	126.1	123.2	136.4	121.6	118.0		
<u>Union Rate Zones</u>											
Resource Acquisition	788.1	816.6	1,120.3	976.5	818.3	798.6	724.4	768.7	766.4	N/A	
Low-Income	43.6	43.6	59.2	80.2	68.8	74.7	91.9	82.1	76.3		
Large Volume	1,268.8	1,236.1	890.9	463.1	195.7	137.7	133.0	116.1	140.5		
<u>Enbridge Gas</u>											
Residential					N/A					22.1	26.7
Low-Income					N/A					7.9	7.0
Commercial					N/A					24.0	32.7
Industrial					N/A					50.4	65.1
Large Volume					N/A					9.3	23.7
Energy Performance					N/A					0	0.1

¹ Prior to 2023, the annual natural gas savings targets had a primary metric of Cumulative Cubic Metres, which measured lifetime net natural gas savings. Beginning in 2023, the annual natural gas savings targets metric changed to Net Annual Cubic Metres, which measures first-year net natural gas savings. See Section 2 for more information.

Table 3.10 Total Annual Natural Gas Savings as a Percent of Total Annual Natural Gas Sales (Gross and Net)

Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 ²	Draft 2024 ³
<u>Combined EGD and Union Rate Zones¹</u>										<u>Enbridge Gas</u>	
<u>Net</u> Annual Natural Gas Savings (million m³)	175.4	174.0	106.5	114.3	108.6	115.7	96.2	92.5	78.6	121.1	161.3
<u>Net</u> Annual Natural Gas Savings as a % of Natural Gas Sales	0.7%	0.7%	0.4%	0.5%	0.4%	0.4%	0.4%	0.4%	0.3%	0.4%	Information not available yet
<u>Gross</u> Annual Natural Gas Savings (million m³)	328.1	322.3	278.8	254.5	222.5	231.8	229.5	201.6	168.0	207.3	231.2
<u>Gross</u> Annual Natural Gas Savings as a % of Natural Gas Sales	1.2%	1.3%	1.2%	1.1%	0.9%	0.9%	0.9%	0.8%	0.6%	0.8%	Information not available yet
Total Natural Gas Sales (million m³)⁴	26,638.4	25,133.3	23,672.0	23,581.3	25,571.6	25,879.7	24,318.7	24,417.4	26,168.4	27,242.5	Information not available yet

¹ The EGD and Union rate zones' historical figures have been combined for simplified reporting notwithstanding their differing historical methodologies.

² 2023 DSM costs subject to OEB approval.

³ 2024 DSM costs subject to OEB approval.

⁴ Total Natural Gas Sales only includes rate classes that are eligible for DSM and subject to DSM costs.

Table 3.11 Total Cumulative Natural Gas Savings as a Percent of Total Annual Natural Gas Sales (Gross and Net)

Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 ²	Draft 2024 ³
<u>Combined EGD and Union Rate Zones¹</u>										<u>Enbridge Gas</u>	
<u>Net</u> Cumulative Natural Gas Savings (million m ³)	2,609.3	2,576.9	1,796.5	1,963.9	1,932.0	2,075.9	1,632.2	1,654.9	1,385.9	1,754.0	2,607.5
<u>Net</u> Cumulative Natural Gas Savings as a % of Natural Gas Sales	9.8%	10.3%	7.6%	8.3%	7.6%	8.0%	6.7%	6.8%	5.3%	6.4%	Information not available yet
<u>Gross</u> Cumulative Natural Gas Savings (million m ³)	4,746.0	4,596.6	4,238.0	4,102.1	3,592.4	3,821.9	3,448.7	3,420.1	2,697.1	2,942.8	3,773.7
<u>Gross</u> Cumulative Natural Gas Savings as a % of Natural Gas Sales	17.8%	18.3%	17.9%	17.4%	14.0%	14.8%	14.2%	14.0%	10.3%	10.8%	Information not available yet
Total Natural Gas Sales (million m ³) ⁴	26,638.4	25,133.3	23,672.0	23,581.3	25,571.6	25,879.7	24,318.7	24,417.4	26,168.4	27,242.5	Information not available yet

¹ The EGD and Union rate zones' historical figures have been combined for simplified reporting notwithstanding their differing historical methodologies.

² 2023 DSM costs subject to OEB approval.

³ 2024 DSM costs subject to OEB approval.

⁴ Total Natural Gas Sales only includes rate classes that are eligible for DSM and subject to DSM costs.

Table 3.12 Total Natural Gas Sales Volumes (million m³)

Item	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Draft 2024
<u>Combined EGD and Union Rate Zones¹</u>										<u>Enbridge Gas</u>	
Total Natural Gas Sales ²	26,638.40	25,133.28	23,671.97	23,581.33	25,571.61	25,879.74	24,318.68	24,417.36	26,168.35	27,242.54	Information not available yet

¹ The EGD and Union rate zones' historical figures have been combined for simplified reporting notwithstanding their differing historical methodologies.

² Only includes rate classes eligible for DSM and subject to DSM costs.

Table 3.13 **Number of Customers by Customer Type**

Customer Type	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Residential*	3,237,152	3,285,272	3,334,545	3,381,450	3,422,651	3,463,392	3,501,048	3,545,158	3,611,366	3,642,911
Commercial	278,264	280,036	282,122	284,212	285,591	287,311	283,414	275,816	278,099	281,949
Industrial	6,122	6,157	6,219	6,267	6,306	6,528	11,988	12,129	12,047	12,061
Wholesale	5	5	6	7	7	7	8	8	9	5
Total	3,521,543	3,571,470	3,622,892	3,671,936	3,714,555	3,757,238	3,796,458	3,833,111	3,901,521	3,936,926

* Residential customers include Low-Income.

Table 3.14 Number of Customers by Rate Class

Rate Class	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
General Service										
EGD Rate Zone										
Rate 1	1,930,657	1,959,569	1,990,032	2,017,128	2,040,710	2,064,531	2,087,370	2,109,164	2,152,304	2,171,334
Rate 6	163,634	164,698	166,224	167,626	168,093	169,084	169,867	169,732	171,210	173,880
Union Rate Zones										
M1	1,083,032	1,097,032	1,111,544	1,127,352	1,141,280	1,154,986	1,167,200	1,178,796	1,197,044	1,206,634
M2	7,437	7,730	7,553	7,469	7,783	7,863	7,934	7,970	8,617	9,859
O1	333,773	339,335	344,458	349,354	353,643	357,603	360,849	364,123	368,838	371,393
10	2,152	2,219	2,192	2,118	2,144	2,201	2,200	2,258	2,394	2,695
General Service Subtotal	3,520,685	3,570,583	3,622,003	3,671,047	3,713,653	3,756,268	3,795,420	3,832,044	3,900,407	3,935,795
Contract										
EGD Rate Zone										
Rate 100	2	2	3	3	4	9	15	17	19	20
Rate 110	227	270	263	273	280	335	392	426	466	479
Rate 115	25	27	27	25	22	20	21	20	18	17
Rate 135	43	45	45	43	41	40	42	42	43	43
Rate 145	52	38	37	32	25	21	19	17	17	15
Rate 170	26	25	26	27	23	21	21	22	20	20
Union Rate Zones										
M4	156	165	185	208	232	239	230	223	221	218
M5	80	72	59	38	42	38	39	37	35	42
M7	28	28	30	30	36	47	56	62	69	74
T1	37	37	37	37	37	39	39	39	38	38
T2	22	22	23	24	25	25	25	25	27	26
20	50	47	46	44	54	57	58	60	65	66
100	10	11	11	11	12	12	12	13	11	9
Contract Subtotal	758	789	792	795	833	903	970	1,001	1,049	1,067
Non-DSM Rate Classes										
EGD Rate Zone										
Rate 9	6	6	3	2	0	2	2	0	0	0
Rate 125	5	5	5	4	4	4	4	4	4	4
Rate 200	1	1	1	1	1	0	1	1	1	1
Rate 300	2	2	2	1	1	1	1	2	1	0
Rate 315	1	1	1	1	1	1	1	0	0	0
Union Rate Zones										
M9	2	2	3	3	4	4	4	4	4	4
M10	2	2	2	3	2	2	2	2	3	0
T3	1	1	1	1	1	1	1	1	1	1
25	80	78	79	78	55	52	52	52	51	54
Total	3,521,543	3,571,470	3,622,892	3,671,936	3,714,555	3,757,238	3,796,458	3,833,111	3,901,521	3,936,926

4. Programs and Offerings

4.1 Residential Program

Enbridge Gas's Residential Program consists of the following offerings:

- Residential Whole Home Offering (Section 4.1.1)
- Residential Single Measure Offering (Section 4.1.2)
- Residential Smart Home Offering (Section 4.1.3)

4.1.1 Residential Whole Home Offering

Historical and Regulatory Context

In 2022, Enbridge Gas executed a contribution agreement ("the Agreement") with Natural Resources Canada ("NRCan") to administer a single, co-funded, Ontario-wide energy efficiency initiative that combines the funding available from the federal Canada Greener Homes Grant ("CGHG") initiative and Enbridge Gas Home Efficiency Rebate into one coordinated offering. This enhanced whole home offering was marketed as the Home Efficiency Rebate Plus ("HER+") program, which was launched January 1st, 2023.

On August 31st, 2022, Enbridge Gas filed the Agreement with the OEB as a part of EB-2021-0002, indicating that Enbridge Gas would be the delivery agent ("DA") of a joint whole home residential program, which allowed the OEB to consider the Agreement's impacts on the DSM portfolio. The OEB issued a Decision on November 15th, 2022, providing direction to Enbridge Gas relating to the program design of HER+. Specifically, the OEB removed the requirement for a participant to remain on the gas system, eliminated gas-fired measures from the residential whole home offering, and approved Enbridge Gas "to access funding in excess of the DSM variance account overspend provision that allows for an incremental 15% of a program budget to be spent during the year should Enbridge Gas have met 100% of its performance scorecard metric on an unverified basis."³¹ This allowance to exceed the 15% DSM variance account overspend provision applies only to the joint residential whole home offering, and any overspend would still require sufficient supporting evidence. Increased incentive levels were determined by the OEB and are outlined in Schedule B of its Decision.³²

On November 8th, 2023, NRCan informed Enbridge Gas that NRCan would be discontinuing new entrants into the Canada Greener Homes Grant in 2024, with a stoppage of new program intake sometime during Q1 2024. This information was then provided to the SOs on November 9th, 2023, through an NRCan presentation. No new applications for HER+ were accepted after end of day February 5th, 2024. Applications received before then were eligible to proceed to completion under the approved terms and conditions. Enbridge Gas continued to administer and payout incentives as participants completed their post-retrofit assessments. In 2024, one hundred percent of the scorecard results and incentive spend for the Residential Whole Home offering was comprised of HER+ participants.

In order to minimize market disruption and in response to stakeholder feedback, Enbridge Gas developed and launched a new residential whole home offering for Enbridge Gas customers only, marketed as the Home Efficiency Rebate ("HER") program, on July 15th, 2024. New participants could enroll and participate in the new HER offering³³ in 2024 but would not receive their incentive payment until 2025. This was because the 2024 incentive budget was already overspent for the HER+ offering. This delay in payment was not a hindrance to many participants, as many participants would not finish these projects until 2025 due to typical participant timelines.

Overview

The Residential Whole Home offering provides a holistic approach to residential home renovations, offering rebates to customers in support of completing home energy assessments and energy efficient upgrades. The offering helps participants gain a better

³¹ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Section 4.2.1, p. 31.

³² Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule B.

³³ Details of the new HER offering are available at: Letter to the Board, Residential DSM Program Update, EB-2021-0002, April 22nd, 2024.

understanding of their home's energy usage, insights into energy improvement opportunities identified through the home energy assessment, and provides incentives for implementing upgrades to improve the efficiency of their home. By participating, homeowners can increase the energy efficiency of their home, decrease their natural gas consumption, and improve their health through better indoor air quality.

Through the offering, customers work with an approved Service Organization ("SO") to complete a preliminary energy assessment to determine the home's baseline energy use and load profile. A Registered Energy Advisor ("REA") models the home using NRCAN energy modelling software ("HOT2000") to produce an energy efficiency report for the homeowner that outlines all energy saving opportunities, includes the home's EnerGuide rating, along with energy saving tips. After upgrades to the home are finished, participants complete a post-retrofit assessment with the REA to quantify the energy savings achieved by the retrofits, as determined by HOT2000.

The HER+ offering targeted Ontario residents who fall into one of the eligibility categories, or "packages", outlined in Table 4.0 below. These packages identify the eligibility requirements for each application and determine the residents' eligibility for the enhanced incentives funded by Enbridge Gas.

Table 4.0 HER+ Package Eligibility

HER+	Package Eligibility Characteristics	Eligibility for Enhanced Incentives
Package A	Owner-occupied and space heated by Enbridge Gas.	Yes
Package B	Owner-occupied and not space heated by Enbridge Gas.	No
Package C	Not owner-occupied (tenants) and space heated by Enbridge Gas.	Yes
Package D	Owner-occupied home in a community not currently connected to the North American electrical grid nor to the piped natural gas network, in a permanent or long-term (five years or more) settlement with at least 10 dwellings.	No

Please see Appendix C for offering details.

Table 4.1 Residential Whole Home Offering Results

Metric	Achievement
Net Annual Gas Savings (m ³)	52,647,340

The Agreement between Enbridge Gas and NRCAN outlined the methodology for attributing natural gas savings between the two parties. For Package A HER+ participants, natural gas savings were attributed, "on a per premise basis, to Enbridge Gas based on the share of the measure incentives funded by Enbridge Gas."³⁴ Further, the Agreement outlined a minimum threshold that specified that "should the savings attributed to Enbridge Gas for any calendar year be below 0.34 gross annual natural gas m³ savings per incentive dollar contributed by Enbridge Gas to the enhanced CGHG offering, adjustments would be made to the attribution to result in a minimum 0.34 m³/incentive dollar attributed to Enbridge Gas"³⁵ ("Attribution Savings Transfer"). For clarity, the Attribution Savings Transfer is only applicable to Package A. Table 4.2 below outlines the Attribution Savings Transfer between Enbridge Gas and NRCAN for the 2024 program year.

³⁴ Letter to the Board, Enbridge Gas and NRCAN Agreement, EB-2021-0002, November 24th, 2022, Attachment 3, p. 9.

³⁵ Letter to the Board, Enbridge Gas and NRCAN Agreement, EB-2021-0002, November 24th, 2022, Attachment 2, p. 11.

Table 4.2 2024 HER+ Gross Attribution Savings Transfer Between Enbridge Gas and NRCan (m³)

Metric	Package A
<u>Pre-Transfer Savings</u>	
Natural gas savings attributed to Enbridge Gas pre-transfer	19,375,664
Natural gas savings attributed to NRCan pre-transfer	56,001,743
Total Savings	75,377,407
<u>Attribution Savings Transfer</u>	
Attribution Savings Transfer amount	29,190,880
<u>Post-Transfer Savings</u>	
Natural gas savings attributed to Enbridge Gas post-transfer	48,566,544
Natural gas savings attributed to NRCan post-transfer	26,810,863
Total Savings	75,377,407

Offering Changes and Lessons Learned in 2024

With the partnership between Enbridge Gas and NRCan in place, 2024 was a very successful year for residential results. The HER+ offering processed over 100,000 applications, and the new HER offering was launched to minimize market disruption.

Table 4.3 displays the forecasted and draft actual participation results for HER+ in 2024 and Table 4.4 displays the draft actual measure uptake for HER+ in 2024.

Table 4.3 2024 HER+ Forecasted and Draft Actual Participation

Metric					
	Package A	Package B	Package C	Package D	Total
Forecasted Number of Participants					46,250
Number of completed participants	86,663	11,061	7,742	0	105,466

HER+ participation results were higher than forecasted as outlined in the NRCan Agreement. Enbridge Gas attributes this to a successful marketing campaign in 2023 and interest in the overall higher rebate levels for measures.

Table 4.4 2024 HER+ Measure Uptake^{1,2}

Eligible Measures	Package A	Package C	Total
Home Insulation			
Exposed Floor Insulation	242	4	246
Exterior Wall Insulation	2,190	167	2,357
Attic/Cathedral Ceiling/Flat Roof Insulation	17,068	1,337	18,405
Basement Slab Insulation	227	1	228
Foundation Insulation	3,297	266	3,563
Basement Header Insulation	1,203	99	1,302
Home Insulation Total	24,227	1,874	26,101
Space Heating			
Ground Source Heat Pump	42	0	42
Air Source Heat Pump	64,307	6,816	71,123
Space Heating Total	64,349	6,816	71,165
Water Heating			
Heat Pump Water Heater	1,020	25	1,045
Water Heating Total	1,020	25	1,045
Other Measures			
Air Sealing	11,434	405	11,839
Windows/Sliding Glass Door	200,405	6,017	206,422
Doors	4,292	203	4,495
Thermostat	399	5	404

¹ For clarity, this table displays the number of measure installations and is not a participant count.

² This table only represents measure uptake for packages that are partially or fully funded by Enbridge Gas.

Draft results indicate approximately 77% of HER+ participants installed a heat pump as one of their measures. While many factors may have led to the success of heat pumps in 2024, such as increasing prevalence of the technology and a gradually improving supply chain, Enbridge Gas hypothesizes that the enhanced incentive of up to \$6,500 for heat pumps was a significant contributing factor driving the heat pump uptake rates.

To address a HOT2000 heating load calculation issue discovered in 2023, Enbridge Gas used a residential heat pump savings algorithm from the New York TRM v11.0 to adjust the savings estimates. By applying this algorithm to the HOT2000 ecosystem input values, Enbridge Gas determined a 40% reduction in savings as a more accurate estimation of gas savings and has used this value for reporting purposes.

Cost-Effectiveness

In its Decision, the OEB provided Enbridge Gas direction regarding the design of this offering, including eligibility rules, eligible measures, and incentive levels. In consideration of this increased level of direction, Enbridge Gas has provided a cost-effectiveness breakdown in Table 4.5 below.

Table 4.5 2024 HER+ Cost Effectiveness*

Offering/Package	TRC+ Ratio	
	NRCan and EGI Contributions	EGI Contribution and Attribution Only
HER+	0.38	0.38

* This table only represents cost-effectiveness for packages that are partially or fully funded by Enbridge Gas.

Enbridge Gas was required to adhere to the program that NRCan had designed in order to jointly deliver the offering in Ontario. Subsequently, the OEB's Decision included direction for Enbridge Gas to provide specified incentives on a measure-by-measure basis.³⁶ These enhanced incentive levels were determined by the OEB and are outlined in Schedule B of its Decision.³⁷ As is evident in Schedule B, there were many measures for which the OEB directed an enhanced incentive, despite the fact that Enbridge Gas did not originally propose an incentive, including space heating heat pumps, water heating heat pumps, and windows and doors.

As shown in Table 4.5, the TRC-Plus cost effectiveness test has resulted in a TRC-Plus ratio for the 2024 HER+ offering of 0.38. An analysis to determine the main drivers for the low TRC-Plus ratio identified the following primary drivers:

1. When heat pumps are installed, there is a reduction in natural gas consumption, which is a benefit according to the TRC methodology, but there is also an increase in electric usage, which is a TRC cost. As a result, the benefit associated with a reduction in natural gas was largely negated, if not exceeded, by the cost of increased electricity usage. The avoided costs for electricity are currently under review.
2. The high equipment cost associated with heat pumps had a significant negative effect on the TRC-Plus ratio. Heat pumps had a strong uptake in 2024, likely due to the high incentive provided through HER+ (up to \$6,500).
3. The high equipment cost associated with windows and doors had a significant negative effect on the TRC-Plus ratio. As is evident in Table 4.4 above, windows and doors were the measure with the highest uptake, likely as a result of the high incentive provided through HER+ (up to \$325).

In Enbridge Gas's opinion, high incentives led to a strong uptake in measures that have significant associated costs, and as a result, drove the TRC-Plus ratio down.

³⁶ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Section 4.2.1, p. 30.

³⁷ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule B.

Spend

Table 4.6 displays the forecasted and actual spending for the Residential Whole Home offering in 2024.

Table 4.6 2024 Residential Whole Home Forecasted and Actual Spending

Item	Forecasted Spend	Actual Spend
Residential Whole Home Costs		
Incentive Costs	\$62,873,505	\$195,104,254
Promotion Costs ^{1,2}	\$1,822,126	\$83,086
Delivery Costs ¹	\$3,075,893	\$2,252,643
Total	\$67,771,524	\$197,243,602
Residential Program-Level Costs		
Residential Program-Level Administration Costs ³	\$1,905,211	\$1,974,779

¹ For clarity, this section displays the combined values for HER and HER+ and includes start-up costs for the Home Renovation Savings™ program.

² Promotion Costs include expenses for all marketing material.

³ Administration Costs are tracked at the Residential Program level.

The HER+ offering has been extremely successful, with participation levels exceeding expectations. The large overspend in incentive spend was due to the successful uptake of the jointly funded program offering, that experienced both much larger participation rates and higher than expected rebate amounts from participants installing higher cost/rebated measures and/or more measures than the original program forecasted.

The Promotion and Delivery spend were both below forecast as non-incentive spending associated with the Residential Whole Home offering was reduced in 2024 following the conclusion of the HER+ offering.

Anticipated Offering Changes for 2025

For 2025, Enbridge Gas and Save on Energy™ have collaborated to launch the new Home Renovation Savings™ (“HRS”) program - Assessment Program Stream, to help Ontarians improve their home efficiency and comfort.

The focus for 2025 will be on processing the 2024 and 2025 HER applications and launching and promoting the new HRS program.

4.1.2 Residential Single Measure Offering

The Single Measure offering will be launched in 2025 and is intended to encourage broader participation in the residential program through the delivery of a simplified single measure alternative. As an alternative to the Whole Home and Smart Thermostat offerings, this offering will provide flexibility for the customer and reduce participation barriers.

Table 4.7 Residential Single Measure Offering Results

Metric	Achievement
Net Annual Gas Savings (m³)	0

Offering Changes and Lessons Learned in 2024

This offering was not in market in 2024.

Enbridge Gas and its consultant were in the process of developing potential substantiation documents for the Single Measure offering. Due to the requirements of other programs and partnerships (namely the HER+ offering and the HRS program in collaboration with the IESO) there were other priorities that resulted in the delay of the development of these substantiation documents.

Anticipated Offering Changes for 2025

The Residential Single Measure offering will be rebranded as both the Heat Pump Program Stream and the Attic Insulation Program Stream under the HRS program, in collaboration with Save on Energy.

4.1.3 Residential Smart Home Offering

The Smart Home offering provides eligible residential Enbridge Gas customers with a rebate towards automated controls to help reduce the energy consumption of their home. The offering currently consists of the smart, or adaptive, thermostat measure, which uses sensors and Wi-Fi technology to give homeowners greater flexibility in controlling heating and cooling needs while at home or away, helping reduce energy demand. The offering provides customers a rebate for the purchase of a qualifying adaptive thermostat. Incentive details are provided in Appendix C.

Table 4.8 Residential Smart Home Offering Results

Metric	Achievement
Net Annual Gas Savings (m ³)	3,675,745

Offering Changes and Lessons Learned in 2024

The following changes were made to the offering in 2024:

- The Google Nest Learning Thermostat 4th Generation was introduced as an eligible device in the offering in 2024.
- A Post-Purchase rebate stream was also introduced, allowing participants to receive a rebate after purchasing a qualifying device from any retailer. This enhancement aims to improve customer convenience and accessibility, complementing the existing Instant Rebate option, providing customers with more flexibility in how they receive their rebates. Additional rules and eligibility considerations for the Post-Purchase rebate stream are outlined in Appendix C. The Post-Purchase rebate is applied as a credit to the participant's Enbridge Gas bill, making it a convenient option for those who may prefer to purchase the Smart Home device from any retailer. Evidence of the Post-Purchase rebate's success is demonstrated by the following:
 - Approximately 20% of 2024 participants leveraged the Post-Purchase rebate.
 - Enbridge Gas saw a noteworthy increase in submissions from participants using contractors for their purchases in the Post-Purchase stream compared to the Instant Rebate stream. Specifically, 4.9% of Post-Purchase participants made their purchases through a contractor, while 0.01% of Instant Rebate participants did the same.
 - Retailers offering the Instant Rebate remained the most common source of smart thermostats among participants, but major retailers like Amazon (new to the offering through the Post-Purchase Stream) constituted a significant number of results, possibly indicating a favourable reception by customers to see rebate options expanded to their preferred retailers.
- Enbridge Gas and the IESO's Save on Energy program collaborated by cross-promoting the smart thermostat offerings in their respective marketing materials.

Anticipated Offering Changes for 2025

The Smart Home offering will be rebranded as part of the Home Renovation Savings (“HRS”) program, in collaboration with Save on Energy, and will be offered under two program streams: the Instant Rebate Smart Thermostat Program Stream, and the Post-Purchase Rebate Smart Thermostat Program Stream.

Any existing Instant Rebate codes held by Enbridge Gas participants will be valid to use through the HRS website. An Enbridge Gas customer who purchased a smart thermostat prior to January 28th, 2025 will be eligible for a Post-Purchase rebate through HRS if they apply within 60 days following their purchase date.

4.2 Low-Income Program

Enbridge Gas's Low-Income Program consists of the following offerings:

- Home Winterproofing Offering (Section 4.2.1)
- Affordable Housing Multi-Residential Offering (Section 4.2.2)

4.2.1 Home Winterproofing Offering

Designed to reduce energy costs and improve indoor home comfort for low-income customers, the Home Winterproofing ("HWP") offering provides a free home energy assessment and installation of efficiency measures, such as insulation, draft-proofing, showerheads, aerators, pipe wrap, and smart thermostats at no cost to the participant. A free carbon monoxide detector is also installed in homes that previously did not have one. In addition, DAs have access to a health and safety budget to remediate issues or barriers posing health and safety risks to residents and DAs that may otherwise prohibit participation in the offering.

The market for this offering includes all single family social and assisted housing, residents in private single-family dwellings and residents on-reserve in Indigenous communities who meet income qualification and eligibility criteria.

To streamline the process, a strategic partnership with the IESO was established in 2022 to enhance the delivery of the Home Winterproofing Program and the Energy Affordability Program by offering both to customers. In addition to the measures offered under HWP, the participant is also eligible for free energy-efficient appliances through the co-delivery approach.

Homes eligible for the offering include detached, semi-detached, row houses, townhouses, and mobile homes with a permanent foundation, as well as small multi-unit residential buildings ("MURBs"). Offering details can be found in Appendix C.

Table 4.9 Home Winterproofing Offering Results

Metric	Achievement
Single Family Net Annual Gas Savings (m³)	3,877,359

Offering Changes and Lessons Learned in 2024

The following activities were fielded as part of the HWP offering in 2024:

- Enbridge Gas installed air source heat pumps in half of the 50 row townhouse units at an Ottawa cooperative housing complex. The units are now heated with a hybrid heating system, with natural gas furnaces functioning as the auxiliary back-up heat. Installation of air source heat pumps in the remaining units will be completed in 2025, and Enbridge Gas will monitor the energy savings and lessons learned through this pilot to inform future program design considerations.
- A deep energy retrofit pilot was implemented in 2024. This pilot improved the attic insulation, foundation insulation, and air tightness for 13 social housing townhomes in Chatham-Kent. The homes' air tightness was enhanced using Aerobarrier, a spray sealant being evaluated by Enbridge Gas for possible inclusion in the HWP offering.
- Enbridge Gas installed heat reflector panels in a limited capacity within 2024, offered only to past HWP participants with homes heated by a boiler system. This limited rollout allowed Enbridge Gas to test the scalability and feasibility of fully incorporating heat reflector panels into the HWP offering.

Enbridge Gas also worked to improve customer project completion, customer awareness, and marketing through the following initiatives:

- Informed by insights from DA customer information systems, Enbridge Gas designed an "abandoned cart" strategy for unresponsive leads, and developed more focused messaging, including setting clear customer journey expectations for the

initial screening call and energy audit, addressing information gaps that might deter participation. Those who responded positively to the campaign and scheduled an assessment within the campaign deadline received a gift card.

- Enbridge Gas has received abundant positive feedback from participants over the years. Many praise the politeness, professionalism, and detailed explanations provided by Enbridge Gas DAs regarding the work being done to improve their home's energy efficiency. Further adjusting its marketing efforts, Enbridge Gas reemphasized these testimonials by launching digital and print campaigns showcasing the testimonials. This initiative helped solidify the credibility of the offering and provided increased information on the role of the DA. This testimonial-based campaign helped convey the positive experiences of previous participants to potential future participants.
- Despite attempting unique marketing campaigns and outreach strategies, Enbridge Gas continues to be challenged to effectively identify and qualify customers in this segment, particularly in rural settings where customers appear to be less responsive to traditional marketing efforts. To help address this challenge, Enbridge Gas engaged a social agency that, given their vast network of collaborative agencies dedicated to support low-income constituents, are well positioned to support outreach and promotion of the offering. Another focus of the outreach in 2024 was directed toward food banks. Food banks have been identified as a key partnership opportunity because the eligibility criteria for HWP often aligns with the needs of individuals utilizing food bank services. Enbridge Gas will continue to explore strategic opportunities to develop enhanced communication and engagement tactics with local associations and other stakeholders to better reach low-income customers.
- Enbridge Gas and the IESO continue to collaborate in support of the HWP and EAP offerings. Together, Enbridge Gas and the IESO met quarterly with DAs to assess strengths, address challenges and gaps in processes, and identify and track action items. Enbridge Gas also co-presented at the IESO's roundtable meetings to promote the two low-income offerings, enhance awareness, share challenges, highlight best practices, explore opportunities for advancing energy efficiency programming, and align industry efforts. Additionally, Enbridge Gas collaborates with the IESO on joint marketing efforts, including co-sponsoring a Summer Festivals tour that included 11 festivals across the GTA. This initiative aimed to increase brand recognition and promote the offering, resulting in quick, on-site assessments that generated approximately 500 leads. Enbridge Gas and the IESO were also able to onboard a new delivery agent in 2024, servicing the N postal code areas of southwestern Ontario.

Anticipated Offering Changes for 2025

For 2025, Enbridge Gas intends to explore the following items:

- In 2024, Enbridge Gas completed the first phase of an HWP customer journey study. In 2025, Enbridge Gas intends to initiate a second phase of this study, identifying gaps, opportunities, and patterns, and providing recommendations for optimizing the customer journey, reducing cycle times, and increasing the performance of the HWP offering.
- Following the successful limited rollout for heat reflector panels in 2024, Enbridge Gas intends to implement a second phase of this rollout, expanding the number of projects completed and finalizing any learnings for input into future offering design.

4.2.2 Affordable Housing Multi-Residential Offering

The Affordable Housing Multi-Residential ("AHMR") offering provides energy assessments, technical assistance and incentives for various energy efficiency measures to social and assisted housing and low-income market rate multi-family buildings. The offering includes custom, prescriptive, new construction, and direct install measures, along with incentives for building assessments. Offering details are provided in Appendix C.

Table 4.10 Affordable Housing Multi-Residential Offering Results

Metric	Achievement
Multi-Residential Net Annual Gas Savings (m ³)	4,029,444

Offering Changes and Lessons Learned in 2024

Enbridge Gas made the following changes in 2024:

- For 2024, Enbridge Gas has adjusted its approach to market to increase the uptake of smaller multi-residential buildings. With increased outreach and the establishment of new customer relationships in rural areas of the province where low-income qualified buildings are typically smaller, the adjusted approach to market is intended to enable the participation of customers who manage smaller, social and private affordable multi-residential buildings. This led to approximately 50 net new projects in 2024.
- Identified as a challenge in previous years, the Delivery Agent for heat reflector panels continued to experience resource constraints, however, Enbridge Gas has worked with the DA to ensure participants in all areas of the Enbridge Gas franchise have access to this measure. As a result, there has been a notable increase in heat reflector panel measure installations.
- As was identified in the Draft 2023 DSM Annual Report, the Above Guideline Increases (“AGI”) policy, as written in the 2023-2025 DSM Plan, was not clear and does not support the OEB guiding principle that “DSM plans should ensure that small volume, low-income and on-reserve First Nations communities are well-served.”³⁸ As a result, Enbridge Gas altered this requirement in 2024, to better fulfill its original intention of supporting low-income tenants. The new requirement states that it is the customer’s (i.e., the landlord’s) responsibility to ensure they follow the rules outlined in the Landlord and Tenant Board Application for Rent Increases Above Guidelines.

The delivery of AHMR in 2024 included challenges and yielded lessons learned, as follows:

- Currently, Enbridge Gas qualifies private market rate rental buildings by comparing a building’s existing monthly rent data (“rent rolls”) against the municipality’s median rent. This method continues to impede Enbridge Gas’s ability to enroll participants, particularly in rural areas where CMHC data is unavailable. In 2025, Enbridge Gas will explore alternate methods to discern median rental data in rural areas to inform a strategy to more effectively serve these customers. Enbridge Gas will also continue to work with building operators to encourage the submission of rent roll data necessary for admission into the offering.
- In order to increase overall participation in the offering, Enbridge Gas altered the Limited-Time Offer (“LTO”) by increasing the incentive to \$2.50/m³ for private market-rate participants and expanding eligibility of the LTO to include the social-housing subsector.

³⁸ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 3.

Table 4.11 below displays the distribution of participation and natural gas savings results between private market rate and social housing participants.

Table 4.11 2024 AHMR Offering Results Distribution Between Private Market and Social Housing Participants

Item	Private Market (%)	Social Housing (%)	Total (%)
Projects	57	43	100
Net Annual Natural Gas Savings	62	38	100

As detailed in the above table, the private market subsector accounts for the majority of natural gas savings. This can be attributed to larger facilities yielding greater per-project results compared to smaller social housing portfolios.

While these participation results indicate a reasonably equitable distribution, Enbridge Gas will continue to drive deeper engagement from all eligible customers and address the unique needs of different segments.

Anticipated Offering Changes for 2025

The 2025 AHMR offering will see an increase in incentive rates for both the standard offer and the LTO. The LTO will be available to both private market-rate and social housing subsectors. All custom projects will be eligible for the increased rate, which is designed to help support customer engagement in the offer despite the removal of boilers as an eligible measure as a result of Amendment 15. Enbridge Gas expects a higher volume of projects will be required to achieve the 2025 target, as boiler projects have historically contributed higher per-project natural gas savings. Enbridge Gas anticipates this strategy will motivate customers to move planned projects earlier in the year to take advantage of the increased incentives.

Enbridge Gas will continue to enable greater program reach through a “Small Building” enhanced offer. The base incentive rate will be increased and will be available throughout the year.

Enbridge Gas will incorporate hybrid heating options related to hydronic heating and ventilation systems for all affordable housing customers. For the prescriptive stream this will be similar to the Commercial Prescriptive offering, however, for AHMR the incentive per unit will increase slightly. Custom offers will follow the existing base incentive rate and LTO rate where applicable. Project requirements will be identical to the Commercial Custom offer to ensure alignment.

4.3 Commercial Program

Enbridge Gas's Commercial Program consists of the following offerings:

- Commercial Custom Offering (Section 4.3.1)
- Prescriptive Downstream Offering (Section 4.3.2)
- Direct Install Offering (Section 4.3.3)
- Prescriptive Midstream Offering (Section 4.3.4)

4.3.1 Commercial Custom Offering

The Commercial Custom offering is designed to encourage customers to reduce their natural gas consumption by providing support to identify and prioritize projects in addition to incentivizing the associated energy savings. Projects supported through the offering require site-specific inputs to calculate savings, including complex measures with interactive effects and those that are outside the scope of prescriptive measures. Key offering elements include:

- Customer project implementation incentives.
- Opportunity identification during site walk-throughs.
- Audit, assessment, and/or metering incentives.
- Portfolio benchmarking, prioritization of opportunities, and quantification of savings through engineering calculations to support business case development.
- Connecting customers to implementation service providers.

The Commercial Custom Offering targets commercial customers, except for low-income qualified multi-family buildings (see Section 4.2.2, the Affordable Housing Multi-Residential offering). Please see Appendix C for the offering details.

Table 4.12 Commercial Custom Offering Results

Metric	Achievement
Large Customer Net Annual Gas Savings (m ³)	16,358,472
Small Customer Net Annual Gas Savings (m ³)	1,799,613

Offering Changes and Lessons Learned in 2024

Based on insights gained in 2023, a tiered incentive structure was introduced for institutional customers in 2024, which included a higher incentive cap of \$500,000 per project. This adjustment was made in recognition that institutional customer projects are often larger, more innovative, and require substantially greater investment when compared to other commercial segments that may adopt more established technologies and solutions. The \$500,000 cap supports institutional projects that come with higher costs and also realize greater natural gas savings.

In 2024, the following LTOs were made available:

- The Condensing Boiler LTO incentive rate increased by 25% to \$0.50/m³ for all commercial segments. This adjustment was made in response to increased equipment costs, which appeared to present a large barrier for condensing boiler upgrades. The cost barrier was confirmed by feedback from distributors and contractors, who noted that customers were opting to repair their inefficient boilers rather than upgrade to new, more expensive condensing boilers. The High Efficiency Boiler LTO remained at \$0.30/m³ to support customers whose systems would most benefit from that type of boiler.

- The Controls LTO was an evolution of the 2023 Multi-Residential LTO, which offered an increased incentive for any non-boiler projects implemented in the multi-residential sub-sector. The 2023 Multi-Residential LTO was a test to see if control projects would still be desirable when all non-boiler projects were incentivized at a higher rate. Indeed, control projects continued to garner significant uptake, and as a result, the Controls LTO was implemented and Enbridge Gas will continue to observe how control projects fare across all commercial sub-sectors when higher incentives are available.
- The Steam System Upgrade LTO encouraged institutional customers who have larger steam systems to audit their steam traps for leaks and their steam system for insulation opportunities. This offer was created to encourage institutional customers to pursue more steam-related projects. Program delivery insights appear to demonstrate that institutional customers outside of the GTA tend to be more resource-constrained, and Enbridge Gas will monitor whether those customers respond to the additional limited-time incentive to complete high-efficiency steam-system upgrade projects.
- The Hybrid Rooftop Unit ("RTU") LTO was launched in October 2023 and completed in 2024, using a dollar-per-unit structure through the Commercial Custom offering. Based on consultation with the HVAC supply chain in the second half of 2023, Enbridge Gas learned that this technology was in the early adoption phase and not readily stocked by distributors. RTUs have an applicability across the commercial sector, and many RTUs are replaced today on burnout with like-for-like, minimal efficiency models. By offering this LTO, Enbridge Gas is exploring lowering the incremental cost barrier and promoting awareness to support customers, in order to plan when they are considering replacing an existing RTU with the higher-efficiency option.

Challenges experienced in 2024 include:

- Elevated interest rates and rising costs are delaying or putting large energy-efficient capital projects at risk, as customers are forced to prioritize spending on urgent or necessary repairs.
- Institutional customers tend to plan and design large, high-cost projects two years or more in advance of implementation, which would extend beyond the 2023-2025 DSM Plan. Inconsistent or unreliable financial support may impact customers' ability to incorporate enhanced energy efficiency components when they are uncertain about their projects' eligibility and incentive availability at the time of planning.
- Enbridge Gas is supporting customers' interest in reducing their emissions via fuel-switching; however, there are many financial, technical and supply chain barriers that will need to be addressed through enhanced program enablers to encourage broader adoption in the future.

Anticipated Offering Changes for 2025

In 2025, the project implementation incentive and energy assessment incentive structures will remain the same.

The following enhanced offers will be available in 2025 to commercial customers:

- Controls – Enhanced Incentive and Bonus Offer: this revised incentive structure encourages commercial customers to pursue controls-based upgrades when they make capital spending decisions. There is an enhanced rate of \$0.50/m³ to complete a controls project by October 31st, as well as a bonus incentive totaling \$1.00/m³ to complete a controls project by August 31st. The bonus incentive is intended to jumpstart proactive planning, as most commercial customers make capital budget-related decisions for the year within the first quarter.
- Boiler Optimization Pilot: while Enbridge Gas will no longer be directly incenting replace on burnout high efficiency or condensing boilers due to the baseline change impacts from the implementation of Amendment 15, Enbridge Gas recognizes that there will be situations where customers are forced to install non-optimized condensing boilers and will need education and financial support to support specific optimization measures. This new pilot supports boiler efficiency improvement by holistically assessing heating system performance followed by optimization activities that enhance the boiler operating efficiency.
- Hybrid RTU Offer: Enbridge Gas expects that hybrid RTUs will be primarily incentivized through the Prescriptive Downstream offering in 2025. The Commercial Custom offering will provide enhanced dollar-per-m³ incentives for larger, typically, and more complex, hybrid RTUs that do not qualify for the prescriptive offer.

4.3.2 Prescriptive Downstream Offering

The Prescriptive Downstream offering provides fixed per-unit financial incentives to end-use customers for several different technologies with defined eligibility requirements. Incentives may also be provided to service providers, BPs, trade allies and distributors, depending on the technology. This offering is available to all commercial and industrial customers. The Prescriptive Downstream offering promotes ease of participation by providing customers a menu of technologies with pre-determined incentives and savings estimates, making it easier to choose an eligible technology and understand the applicable incentive.

Please see Appendix C for the full list of eligible technologies and their incentives. Energy savings are based on the OEB's TRM. See Section 2.6 for more details regarding the TRM.

Table 4.13 Prescriptive Downstream Offering Results

Metric	Achievement
Large Customer Net Annual Gas Savings (m ³)	1,421,781
Small Customer Net Annual Gas Savings (m ³)	850,970

Offering Changes and Lessons Learned in 2024

Offering changes in 2024 include:

- Increased incentives for the Business Partner Multi-Unit Year-End Bonus offer, as exhibited in Appendix C.
- The implementation of a new, streamlined, multi-address installation form, allowing larger customers with multiple locations in Ontario to use a single application form for all participating premises.

Bonus offers and LTOs for ozone laundry, destratification fans and demand-controlled kitchen ventilation ("DCKV") were reintroduced to help address participants' financial barriers, particularly on higher-cost measures, and to spur participation. In response to lessons learned in 2023, Enbridge Gas widened the timeline for LTOs in 2024 to align with participants' budget approval cycles to support improved participation rates.

Anticipated Offering Changes for 2025

Enbridge Gas plans to relaunch the DCKV Multi-Install bonus for MUSH and customers operating multiple facilities in Ontario, and will increase the number of small units (less than 5,000 CFM) incentivized per participant from two to five. To help increase interest in the Demand Control Ventilation ("DCV") measure, Enbridge Gas will increase the participant incentive from \$500 to \$700 and will double the service provider incentive from \$50 to \$100.

Further updates for 2025 will include the introduction of a new measure (hybrid RTUs) and newly eligible fan sizes for destratification fans.

4.3.3 Direct Install Offering

The Direct Install offering is marketed as the Small Business Offer and provides a turnkey option through which enhanced support and higher incentives are provided for the installation of select energy efficient measures. The offering targets small and medium-sized independently owned businesses. Offering details are provided in Appendix C.

Table 4.14 Direct Install Offering Results

Metric	Achievement
Large Customer Net Annual Gas Savings (m ³)	217,154
Small Customer Net Annual Gas Savings (m ³)	4,585,281

Offering Changes and Lessons Learned in 2024

Enbridge Gas continued to deliver the Direct Install offering through two streams, the shipping door equipment stream and the DCKV stream.

In 2024, Enbridge Gas created an external facing portal for vendors to canvas potential customers and determine eligibility instantly. This portal also functions as a reporting tool and allows vendors to upload the necessary documentation for project completion.

Enbridge Gas continued to utilize maximum incentive amounts to help overcome market barriers and drive participation rates. The maximum incentive amounts for air curtain projects covered approximately 90% of the total cost, and dock door seal incentives covered up to 100% of the total cost. Enbridge Gas continues to see an increased number of dock door seal projects as compared to air curtain projects.

The DCKV installation stream continued to be delivered through a collaboration with the IESO Save on Energy (“IESO SOE”) Retrofit Program, allowing for joint delivery through one point of contact. LTOs were offered for both Tier 1 (up to 5,000 CFM) and Tier 2 (5,001 to 10,000 CFM) DCKV units to help increase uptake. Despite increased incentive LTOs, Enbridge Gas saw an overall decrease in the uptake of DCKVs in the Direct Install offering in 2024. Vendor-related employee turnover and decreased participation were likely interconnected challenges faced in the DCKV stream.

The Shipping Door stream saw significant improvement in 2024, partly attributable to increased coverage in areas that were previously underserved (i.e., Durham and Niagara regions). The self-canvassing tool within the portal allowed for increased vendor engagement and decreased administrative burden on Enbridge Gas.

In 2024, Enbridge Gas developed and implemented a marketing publication strategy to promote the offering and bring greater awareness and legitimacy to vendors promoting the offering, addressing participation barriers identified in previous years. As part of this strategy, Enbridge Gas now reaches out to customers via phone and email to promote the offering and validate the vendors’ legitimacy. Enbridge Gas also developed ID badges for vendors to help alleviate legitimacy misperceptions. Additionally, Enbridge Gas works with these vendors to manage employee turnover issues, ensuring they don’t hinder the offering’s performance or provide a negative customer experience.

Small business customers continued to be impacted by economic challenges from high interest rates and elevated costs associated with equipment, installation, supply chain, and fuel consumption, which creates a barrier for investing in energy efficiency. In line with the 2023 program year, Enbridge Gas’s response to these constraints was to maintain maximum incentive levels covering up to 100% of select measures. Participants continue to respond positively to this change, and Enbridge Gas will consider continuing these maximum incentives for certain measures in 2025.

Anticipated Offering Changes for 2025

For 2025, Enbridge Gas is considering the following expansions for both Direct Install streams:

- Investigating additional measures for the Shipping Door stream, including pilots for certain TRM measures.
- Strengthening the joint delivery of the offering with the IESO’s Small Business Program and exploring opportunities for increased collaboration where feasible.

4.3.4 Prescriptive Midstream Offering

Enbridge Gas's Prescriptive Midstream offering influences foodservice, HVAC, and other equipment distributors to promote select high-efficiency options at the point of sale through a hands-on delivery approach provided by an external agent. A full list of eligible technologies and their associated incentives is provided for reference in Appendix C. Energy savings are based on the OEB's TRM, details for which are provided in Section 2.6.

Table 4.15 Prescriptive Midstream Offering Results

Metric	Achievement
Large Customer Net Annual Gas Savings (m ³)	374,720
Small Customer Net Annual Gas Savings (m ³)	1,205,761

Offering Changes and Lessons Learned in 2024

Informed by previous year's experiences, several new program design tactics were deployed in 2024. As detailed below, these tactics were intended to improve the accessibility of offering related content, help advance awareness of the value associated with higher efficient equipment, and support greater participation rates.

- Expanded measure mix to include condensing storage water heaters in the HVAC stream in an effort to broaden the range of eligible measures. The uptake associated with the condensing storage water heater drove results in the second half of the year, which demonstrated the efficacy of the tactic.
- Sales Program Incentive Fund ("SPIFF"): launched in August, the new SPIFF provided an incentive mechanism for individual sales representatives as a form of recognition and motivation for their efforts to sell eligible efficient equipment within the foodservice stream, and for contributing to the distributor target achievements. To allow flexibility, two participation agreements were developed to enable distributors the choice to opt-in to the SPIFF model.
- Fryer buying guides were introduced, providing an easy-to-read comparison of standard models to efficient and high-efficiency models with information on the available instant discounts, return on investment estimates, and the non-energy benefits associated with the various models.
- Qualified Product List ("QPL") refresh: this involved updating the quick reference content with current eligible models within each equipment category, helping to streamline the selection process for customers.
- Customizable technical sheets were created and shared with participating distributors to enable their ability to customize technical sheets with their logos and the equipment, makes, models, and brands that they carry to demonstrate their partnership role in the offering. These sheets not only help distributors promote the high-efficiency equipment included in the offer, but they also highlight the energy and non-energy benefits associated with the products.

In addition to the program design tactics noted above, and driven by a process evaluation recommendation, Enbridge Gas commissioned a market characterization study to help enhance the understanding of the commercial kitchen equipment midstream offering supply chain. The study sought to identify key influence pathways, assess barriers to the purchase and sale of high-efficient commercial kitchen equipment, and define the roles of all market actors relevant to the offering. Findings and recommendations from this study are intended to inform an approach to maximize the impact of this offering and strengthen future programming.

Anticipated Offering Changes for 2025

Several enhancements to the offering are planned for 2025. Enbridge Gas is planning on increasing the 40% minimum passthrough incentive received by the end user to 60% for the foodservice stream. This will be coupled with customer satisfaction surveys to gather feedback on the buying experience of high-efficiency equipment through participating distributors.

In addition to ongoing engagement to leverage distribution partners' market reach for the offering, and new marketing strategies to support this, Enbridge Gas intends to explore the inclusion of rental equipment in the offer. This will require gathering information on key players and identifying equipment opportunities through market-actor stakeholder to help develop an understanding of common rental and leasing equipment and related processes, and to determine optimal incentive levels to support market uptake.

Finally, marketing strategies will be developed in collaboration with the DA to engage small businesses cost-effectively, particularly those that have historically been difficult to reach. This will be supported by a bottom-up marketing campaign targeting end users, encouraging the adoption of high-efficiency equipment through participating distributors or retailers.

4.4 Industrial Program

Enbridge Gas's Industrial Program consists of the following offering:

- Industrial Custom Offering (Section 4.4.1)

4.4.1 Industrial Custom Offering

The Industrial Custom Offering addresses energy savings opportunities related to unique building specifications, design concepts, processes, and/or new technologies that are outside the scope of prescriptive measures. The offering provides technical assistance and financial incentives, helping industrial customers to identify, quantify, and implement energy efficient measures, projects, or initiatives. Enbridge Gas also provides financial support for third-party assessments aimed at quantifying and validating identified projects. See Appendix C for the offering details.

Table 4.16 Industrial Custom Offering Results

Metric	Achievement
Net Annual Gas Savings (m ³)	56,413,003

Offering Changes and Lessons Learned in 2024

In 2024, Enbridge Gas introduced the following adjustments to the Industrial Custom offering:

- The manufacturing segment's first-tier standard incentive rate was increased from \$0.20/m³ to \$0.30/m³ to help reduce the payback period for smaller sized projects.
- Increased incentive rates were provided for air-balance related energy assessments to help potential participants identify energy saving opportunities.
- The maximum per-project available incentive was increased from \$200,000 to \$250,000.
- Enbridge Gas relaunched an LTO to encourage completion of agricultural retrofit projects earlier in the year. Enbridge Gas has found LTOs remain effective in the agricultural market, where measures are less affected by lead times that have increased in recent years in other segments. While agricultural measures are less affected, Enbridge Gas notes that lead times across all measures remain elevated compared to historical norms prior to the COVID-19 pandemic.

While the agricultural LTO generated strong customer interest, infrastructure capacity constraints and ongoing water moratoriums in some municipalities limited the expansion of greenhouse operations.

As noted with other customer segments, industrial customers continue to contend with elevated interest rates and challenging economic conditions. Consequently, industrial customers remain cautious and conservative as it relates to capital budget planning, and energy efficiency upgrades may become deprioritized during periods of austerity in comparison to production, maintenance, and safety-related activities and projects.

In recent years, relationships between Enbridge Gas Energy Solutions Advisors ("ESAs") and customer representatives have been impacted by staffing shortages and increased turnover across the industry, impacting customer sites and Enbridge Gas alike. Reestablishing relationships with new customer representatives was a focus in 2024, and Enbridge Gas successfully sustained and evolved existing relationships, formed new relationships, and worked to revive any relationships that may have faltered.

Anticipated Offering Changes for 2025

To aid customers with opportunity identification, Enbridge Gas will continue to provide limited-time bonus incentives for air balance studies for the manufacturing segment, and limited-time bonus incentives for steam trap audits for the agriculture segment.

Recognizing that financial challenges persist for industrial customers, Enbridge Gas will further increase incentives for the manufacturing and agriculture segments. A new LTO targeted for small to medium sized agriculture facilities will be launched to increase participation and savings for that market.

4.5 Large Volume Program

Enbridge Gas's Large Volume Program consists of the Direct Access Offering (Section 4.5.1).

4.5.1 Direct Access Offering

The Large Volume Direct Access offering is exclusive to contract customers within Rate T2 or Rate 100 in the legacy Union rate zones. Customers in these rate classes have significant natural gas consumption and include large volume industrial operations, power generators, chemical plants, and petroleum refineries. As a result of the OEB's finding in its Decision that gas-fired-generators should be exempt from the Large Volume Program,³⁹ these customers are excluded from the Large Volume Program.

The offering uses a self-directed funding model, wherein each customer has direct access to the incentive budget they pay in rates. Under this model, customers know exactly how much funding they have available each program year and can appropriately plan their expenditures to reduce energy usage in their facility. Working with an Enbridge Gas Technical Account Manager, customers submit an annual Energy Efficiency Plan ("EEP") outlining gas saving projects or studies driving future energy efficiency projects. If a customer elects not to participate, the funds are dispersed via an aggregated pool approach. The aggregated pool is then used to fund additional energy efficiency projects for all eligible Rate T2 and Rate 100 customers, on a first-come, first-serve basis. Additional offering details are provided in Appendix C.

Table 4.17 Direct Access Offering Results

Metric	Achievement
Net Annual Gas Savings (m ³)	13,568,203

Offering Changes and Lessons Learned in 2024

Enbridge Gas increased the aggregated pool incentive cap from \$50,000 to \$200,000 to motivate Large Volume customers to complete capital-intensive efficiency projects beyond their Direct Access budget.

To encourage customer participation, Enbridge Gas increased incentives for participants and worked to reduce program barriers through a one-on-one tailored approach to technical consultation, opportunity identification, and project prioritization.

In 2024, Enbridge Gas moved the EEP submission deadline from April to July 1st in order to provide participants with a more reasonable amount of time to develop and submit an annual EEP to their ESA.

In recent years, relationships between Enbridge Gas ESAs and customer representatives have been impacted by staffing shortages and increased turnover across the industry, impacting customer sites and Enbridge Gas alike. Focused efforts on remedying this in 2024 resulted in the successful sustainment of existing relationships, the forming of new relationships, and reestablishing any relationships that may have faltered.

Anticipated Offering Changes for 2025

The Direct Access offering incentives and program structure will remain unchanged for 2025.

³⁹ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Section 4.2.4, p. 43.

4.6 Energy Performance Program

Enbridge Gas's Energy Performance Program consists of the Whole Building Pay for Performance ("P4P") Offering (Section 4.6.1).

4.6.1 Whole Building Pay for Performance Offering

The P4P offering for K-12 schools takes a holistic, multi-year approach to energy management, supporting participants in achieving deeper savings year over year. It uses metered and building data to establish a baseline for energy use, setting performance targets 20% beyond that baseline. Energy performance is measured annually over three years to calculate participant incentives. Additionally, a bonus incentive is available for participants who achieve and sustain at least a 20% improvement in energy efficiency compared to the original baseline. This approach differs from Enbridge Gas's traditional resource acquisition programming, as the baseline refers to the in-situ performance rather than code requirements or industry standard practice.

While the schools are supported initially with an opportunity identification workshop, ongoing support is also provided to assess capital, operational and/or behavioural energy-savings opportunities within a building over the defined participation period.

The multi-year engagement of this offering can be classified into two periods: (i) the Start-Up Period, and (ii) the Performance Period. During the Start-Up Period, the participant completes the gas baseline model and opportunity identification assessment. The selected opportunities will then be implemented throughout the Performance Period and associated metered gas savings are tracked and reported. Offering details are provided in Appendix C.

Table 4.18 Whole Building Pay for Performance Offering Results

Metric	Achievement
Participants	27
Net Annual Gas Savings (m ³)	276,138

Offering Changes and Lessons Learned in 2024

The first cohort of participants successfully completed the initial Performance Period, with the Delivery Agent (DA) providing guidance to help them achieve their building performance targets. Throughout the period, the DA also supported participants in developing the skills needed to monitor and manage their gas consumption more effectively.

To further strengthen program visibility and credibility, a dedicated webpage for the P4P offering was launched, serving as a resource for potential applicants.

As participation scaled up, program administration became increasingly complex. Managing the offering required significant coordination efforts, including overseeing site work, resolving metering discrepancies, and providing ongoing support to participants. While a DA had been engaged to assist with administration, inefficiencies in communication and data tracking created operational challenges.

To address these challenges, Enbridge Gas will implement streamlined communication protocols, real-time data tracking improvements, and a more structured approach to documentation. These enhancements will improve visibility into participant activities, ensure timely intervention when issues arise, and strengthen overall program administration.

One key oversight during implementation involved participant eligibility tracking. During the period between baseline measurement and program launch, gaps in the DA's tracking and oversight led to instances where, unbeknownst to the DA and Enbridge Gas alike, some schools underwent retrofits that altered their energy baselines. These changes went unnoticed until after upgrades were completed, making the schools ineligible for continued participation. As a result, these participants had to be disqualified from the offering. This highlighted the need for more proactive monitoring and earlier detection of potential eligibility risks. Moving forward, program

refinements will include enhanced tracking protocols, clearer guidelines on baseline integrity, and more frequent touchpoints with participants to identify and mitigate disqualifying activities before they occur.

Overall, communication and documentation gaps significantly impacted program administration. Inconsistent information flow between school boards and the DA, combined with the lack of real-time updates, made it difficult to track participant progress and assess program effectiveness. Without a structured documentation system, delays in identifying and resolving metering issues further complicated oversight.

Anticipated Offering Changes for 2025

Enbridge Gas will continue supporting the first and second cohorts throughout their respective Performance Periods, working closely with the DA to help underperforming participants achieve greater natural gas savings. The DA will maintain regular engagement with school boards to ensure meters function correctly, interval metering data remains accessible, and any facility installations or operational changes are closely tracked.

Additionally, to improve data transparency and performance monitoring, the DA will enhance its reporting structure. Quarterly reports will now provide deeper analysis of natural gas consumption trends, highlighting variations and providing actionable insights to help participants optimize energy use.

4.7 Building Beyond Code Program

Enbridge Gas's Building Beyond Code Program consists of the following offerings:

- Residential Savings By Design Offering (Section 4.7.1)
- Commercial Savings By Design Offering (Section 4.7.2)
- Affordable Housing Savings By Design Offering (Section 4.7.3)
- Commercial Air Tightness Testing Offering (Section 4.7.4)

4.7.1 Residential Savings By Design Offering

The objective of the Residential Savings by Design offering is to support and influence the residential building industry through capacity-building initiatives that address barriers to meet anticipated building code changes requiring higher energy efficiency performance for newly constructed homes. The offering is intended to mitigate lost opportunities by helping advance builder knowledge, practices, and interest in building beyond code through the following two streams:

- The Energy Star for New Homes ("ESNH") stream focuses on providing targeted support to builders to construct and certify their homes to ESNH version 17 or equivalent (approximately 20% over Ontario Building Code ["OBC"]) in municipalities with historically low levels of market penetration of this efficiency standard.
- The Net Zero Energy Ready ("NZER") stream helps to advance builders' performance design, procurement, and construction related knowledge and practices at the design phase to support their ability to execute discovery homes built to the Net Zero Ready labelling requirements established by the Canadian Home Builders Association ("CHBA").

Through the ESNH, builders can participate in information sessions that provide technical guidance on building to the ESNH standard.

In the NZER stream, participating builders are guided through a series of activities to support the design and construction of the NZER discovery home, including:

- An Integrated Design Process ("IDP") workshop that supports provides context and insights into the NZER offer, labelling requirements, and the various measures that can be used to obtain the label.
- Trades training.
- Sales training.
- Testing/verification and labeling of the home.

Offering details are provided in Appendix C.

Table 4.19 Residential Savings by Design Offering Results

Metric	Achievement
Number of Energy Star Homes	749
Number of Net Zero Energy Ready Homes	18

Offering Changes and Lessons Learned in 2024

Enbridge Gas continued to revise the list of municipalities where the number of ESNH homes remained lower than 15% over the preceding three years to ensure this stream was only available in areas that demonstrate a need to support builders achieve the ESNH standard. Builders operating within municipalities with Green Development Standards ("GDS") are also ineligible for the ESNH stream.

Across Ontario, residential new construction continues to be impacted by labour shortages and inflated materials costs. These factors have contributed to lower housing sales and construction project delays, which impacted the offering results.

Despite market challenges, there continues to be a high level of builder interest in the NZER stream. Enbridge Gas has worked with a number of builders that completed the IDP workshop, determined the NZER discovery home design, and have begun construction of their discovery homes. Given the multi-year horizon of the NZER stream, the 2024 NZER labeling results were driven by builder participants from 2023.

Anticipated Offering Changes for 2025

No changes to the offering details are anticipated in 2025.

4.7.2 Commercial Savings By Design Offering

The Commercial Savings by Design (“CSBD”) offering supports builders and developers to advance their initial design concepts beyond Ontario Building Code (“OBC”) requirements through an IDP workshop. Each IDP workshop brings industry experts together to provide tailored energy conservation considerations and opportunities, demonstrating the feasibility of including more efficient measures that will enhance the overall building’s performance.

Enbridge Gas’s ESAs actively engage with builders and developers to identify new commercial (e.g., MUSH, MURB, and non-industrial businesses) construction projects at the early design phase to target for participation in the CSBD offering. IDP workshop participants are guided through a series of activities tailored to their project, through which several design, technology, and process considerations are recommended to meet or exceed the OBC energy-related performance requirements by 25%. Key elements of the offering include:

- Visioning Session between the design team and IDP workshop facilitator.
- Energy Modelling to create a baseline energy model for reference during the IDP workshop, helping set the IDP Efficiency Target.
- IDP Workshop and associated summary report that documents key outcomes.
- Assessment of the final building design submitted for permitting to determine if it aligns with the IDP-related efficiency performance target.
- Technical Assistance Incentive of \$4,000 to the builder to help offset the cost of professional consulting fees incurred to bring their design team to the workshop.

Table 4.20 Commercial Savings by Design Offering Results

Metric	Achievement
Participants	26

Offering Changes and Lessons Learned in 2024

The construction industry continues to face challenges due to elevated costs, resource constraints, knowledge gaps, and market uncertainty, which can cause hesitation and deter interest in exploring design and procurement practices beyond business-as-usual approaches to design and construction. In the GTA, rising land prices and the Toronto GDS also impact project cost and size, which may reduce a builders’ focus on significantly exceeding minimum energy-related code standards.

Compounding market-related challenges, the CSBD offer requires costly and time-consuming design-related energy modelling, which prolongs project schedules and introduces complexity associated with procuring and implementing higher-efficiency technologies. To help offset incremental upfront cost barriers for participation, Enbridge Gas implemented a Technical Assistance Bonus of \$4,000 per project, modelled after the Affordable Housing Savings by Design Technical Assistance incentive.

Anticipated Offering Changes for 2025

No changes to the offering details are anticipated in 2025.

A DA-led CSBD awareness-building outreach strategy will be introduced to target energy modelers and builders through webinars and in-person events to help increase participation in the offering. Marketing promotions will focus on lead-generation with MURB builders and municipalities.

4.7.3 Affordable Housing Savings By Design Offering

Providing supporting activities from the early design phase through to construction, Enbridge Gas helps affordable housing providers to design and build new construction projects that exceed OBC energy performance targets by at least 20% through the Affordable Housing Savings by Design (“AHSBD”) offering. For projects that fall within a municipality with a Green Development Standard, the offering requires a 5% incremental improvement in energy performance beyond the local standard targets. In addition to advancing building designs beyond code, the AHSBD offering aims to transform affordable housing providers’ understanding of achievable energy performance possibilities for their new buildings.

Offering details are provided in Appendix C.

Table 4.21 Affordable Housing Savings by Design Offering Results

Metric	Achievement
Participants	28

Offering Changes and Lessons Learned in 2024

Enbridge Gas strategically increased focus on awareness-building activities in areas of the province with lower participation rates through a targeted marketing campaign, which resulted in successful project leads in those areas. Additionally, new advertising initiatives were implemented through the Royal Architectural Institute of Canada to generate offering awareness with project design teams.

Collaborating with Enbridge Gas’s AHMR offering enabled increased outreach to mutual clients via activities such as webinars and trade shows with associations such as Housing Services Corp and the Ontario Non-Profit Housing Association. Please see Section 4.2.2 for more information about the AHMR offering.

Anticipated Offering Changes for 2025

There are no anticipated offering changes for 2025.

4.7.4 Commercial Air Tightness Testing Offering

The Commercial Air Tightness Testing (“ATT”) offering aims to advance the adoption of air tightness testing in commercial and multi-family new construction buildings by providing technical and financial support measures to assist participants in commissioning air tightness tests, addressing any performance deficiencies, and measuring improved performance levels.

The ATT offering is delivered through two offer streams:

1. **Program Participants:** this stream targets developers and builders of commercial and multi-residential buildings that are 25,000 ft² or larger and will be in a condition where air tightness testing can be performed before October 1st of the program year. Technical and financial support assists participants in commissioning air tightness tests, addressing any performance deficiencies, and measuring improved performance levels.

2. **Qualified Agents:** this stream seeks to build the capacity of commercial air tightness testing agents throughout the building community. Delivered by a third-party, Enbridge Gas offers an online course followed by a full-day classroom workshop with hands-on training to help build capacity, skills, and knowledge associated with air testing requirements and best practices. The offering is tailored to people who have interest in building envelope or building commissioning, with an educational background in building enclosure, energy modelling, architecture, building sustainability, structural engineering, energy auditing, and general contracting fields of study.

Offering details are provided in Appendix C.

Table 4.22 Commercial Air Tightness Testing Offering Results

Metric	Achievement
Participants	8
Number of Qualified Agents	24

Offering Changes and Lessons Learned in 2024

Enbridge Gas continues to find a high level of interest among industry professionals and the construction community to learn about air tightness best practices, as evidenced by the response to the Qualified Agent workshops and ATT participation rates.

In response to feedback provided by the delivery agent, the curriculum for Qualified Agents was expanded to incorporate an online “at your own pace” training module followed by a full day practical, hands-on, in-person workshop.

Although introducing ATT into new construction projects continues to be a challenge given the lackluster growth rate in the sector and the potential time burden, interest in incentivized ATT and related skill development continues to support the offering’s performance.

Anticipated Offering Changes for 2025

No changes are anticipated to the offering in 2025.

Strategic marketing promotions will focus on lead generation of MURB builders, municipal buildings, universities, and schools outside the GTA to help drive awareness and uptake of the ATT offering.

5. Evaluation

Per the 2023 DSM Framework, “there are two broad categories of evaluation activity: impact evaluation and process evaluation. Impact evaluation focuses on the specific impacts of the program – for example, savings and costs. Process evaluation focuses on the effectiveness of the program design – for example, the delivery channel.”⁴⁰

As discussed in Section 2.3, impact evaluation is coordinated and executed by the OEB. Since program design and implementation are program administrator activities, process evaluation is coordinated and executed by Enbridge Gas.

5.1 Impact Evaluation and Audit

As discussed in Section 2.3, the OEB coordinates the impact evaluation and annual verification process, including selecting a third-party EC. The intention of the annual verification process is for the EC to provide an opinion on whether the claimed DSM shareholder incentive amount, amount to be added to the Lost Revenue Adjustment Mechanism Variance Account, and Demand Side Management Variance Account have been correctly calculated using reasonable assumptions. The EAC, as described in Section 2.3, provides input and advice to the EC to support the achievement of the annual verification objectives.

Details on the impact evaluation activities and other verification activities for the 2024 program year will be outlined in the EC’s 2024 audit report available on the Natural Gas Conservation Evaluation Advisory Committee section of the OEB Engage with Us website.⁴¹

5.2 Process Evaluation

Enbridge Gas regularly evaluates its programs and offerings to assess the effectiveness of its program design.

In its Decision, the OEB stated “that Enbridge Gas will share a full process evaluation plan with OEB staff, the EAC and EC for integration into the broader EM&V plan developed for the OEB by the EC for the 2023 to 2025 DSM Plan term.”⁴² On May 25th, 2023, Enbridge Gas submitted its process evaluation plan to the EAC. This process evaluation plan is contained within the Final 2023 – 2025 Evaluation Measurement and Verification Plan produced by the EC and is available on the Natural Gas Conservation Evaluation Advisory Committee section of the OEB Engage with Us website.⁴³

In 2024, Enbridge Gas completed a formal process evaluation of the Smart Home offering. The report is included as Appendix E and discussed in Section 5.2.1 below.

5.2.1 Process Evaluation of the Smart Home Offering

Enbridge Gas contracted SeeLine Group Ltd. (“SeeLine”) to perform a Process Evaluation of the Smart Home offering with a focus on improving the participant Wi-Fi connection rates.

Overall, the offering appears to be functioning well from the perspective of the participant. Interestingly, respondents who were previously identified through “ping” verification to have not connected their device to Wi-Fi stated installation and connectivity rates were high, with 87.5% indicating that their device was installed in their residence and 95% of their devices were connected to Wi-Fi. This may indicate that the ping methodology could misrepresent the impact of the offering.

SeeLine provided the following recommendations to enhance the program's effectiveness and accessibility:

- Conduct a comparative study of 2023 and 2024 ping-rates versus telephone verification surveys across all manufacturers in the offer to validate the use of the ping-rates to inform the performance adjustment metrics.

⁴⁰ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 29.

⁴¹ <https://engagewithus.oeb.ca/natural-gas-conservation-evaluation-advisory-committee>

⁴² Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Section 4.8, p. 81.

⁴³ <https://engagewithus.oeb.ca/natural-gas-conservation-evaluation-advisory-committee>

- Provide additional pre-purchase installation guidance to mitigate participant frustration.
- Include compatibility information on the participation portal webpage to help participants choose a thermostat suited to their home heating systems.
- Emphasize the high-speed internet access requirement more prominently during the application process.

Please see Appendix E to review the full report and its recommendations.

6. Results and Spend

6.1 Scorecard Results and Shareholder Incentive

Enbridge Gas is eligible to earn a shareholder incentive of up to \$22.3 million for DSM results measured against the Company's Residential, Low Income, Commercial, Industrial, Large Volume, Energy Performance, and Building Beyond Code Scorecards. The DSM shareholder incentive is established by the OEB to "motivate the gas utility to both actively and efficiently pursue DSM savings and to recognize performance."⁴⁴ The maximum incentive available is allocated to each scorecard based on the allocation of budget to each scorecard. For more information on the DSM shareholder incentive please refer to Section 6 of the 2023 DSM Framework.

In 2024, Enbridge Gas earned \$12.5 million in Shareholder incentive as outlined in Table 6.0 below.

Table 6.0 2024 Maximum Shareholder Incentive and Achievement by Scorecard

Scorecard	Maximum DSM Incentive	DSM Shareholder Incentive Achieved
Residential	\$4,910,664	\$4,910,664
Low-Income	\$4,910,664	\$4,165,356
Commercial	\$4,910,664	\$914,162
Industrial	\$4,910,664	\$920,548
Large Volume	\$669,656	\$0
Energy Performance	\$223,212	\$223,212
Building Beyond Code	\$1,785,969	\$1,333,363
Total	\$22,321,200	\$12,467,306

Detailed scorecard results are provided in Table 6.1 to Table 6.7 below.

Table 6.1 2024 Residential Program Scorecard Results

Metrics	Metric Target Levels			Weight	Achievement	Weighted % of Scorecard Achieved
	Lower Band	Target	Upper Band			
Net Annual Gas Savings (m ³)	19,988,645	26,651,527	33,314,409	100%	56,323,086	200% ¹
^{1,2} Metric is capped at 200%. Scorecard is capped at 125%. Actual achievement was 211%.						Total Scorecard Target Achieved
						125%²
						Scorecard Company Incentive Achieved
						\$4,910,664

⁴⁴ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 33.

Table 6.2 2024 Low-Income Program Scorecard Results

Metrics	Metric Target Levels			Weight	Achievement	Weighted % of Scorecard Achieved
	Lower Band	Target	Upper Band			
Single Family Net Annual Gas Savings (m³)	2,034,975	2,713,300	3,391,625	50%	3,877,359	71%
Multi-Residential Net Annual Gas Savings (m³)	3,199,656	4,266,208	5,332,760	50%	4,029,444	47%
Total Scorecard Target Achieved						119%
Scorecard Company Incentive Achieved						\$4,165,356

Table 6.3 2024 Commercial Program Scorecard Results

Metrics	Metric Target Levels			Weight	Achievement	Weighted % of Scorecard Achieved
	Lower Band	Target	Upper Band			
Large Customer Net Annual Gas Savings (m³)	17,991,631	23,988,841	29,986,051	50%	18,372,127	38%
Small Customer Net Annual Gas Savings (m³)	6,548,383	8,731,178	10,913,972	50%	8,441,625	48%
Total Scorecard Target Achieved						87%
Scorecard Company Incentive Achieved						\$914,162

Table 6.4 2024 Industrial Program Scorecard Results

Metrics	Metric Target Levels			Weight	Achievement	Weighted % of Scorecard Achieved
	Lower Band	Target	Upper Band			
Net Annual Gas Savings (m³)	48,791,065	65,054,753	81,318,442	100%	56,413,003	87%
Total Scorecard Target Achieved						87%
Scorecard Company Incentive Achieved						\$920,548

Table 6.5 2024 Large Volume Program Scorecard Results

Metrics	Metric Target Levels			Weight	Achievement	Weighted % of Scorecard Achieved
	Lower Band	Target	Upper Band			
Net Annual Gas Savings (m³)	17,783,419	23,711,225	29,639,032	100%	13,568,203	57%
Total Scorecard Target Achieved						57%
Scorecard Company Incentive Achieved						\$0

Table 6.6 2024 Energy Performance Program Scorecard Results

Metrics	Metric Target Levels			Weight	Achievement	Weighted % of Scorecard Achieved
	Lower Band	Target	Upper Band			
Participants	19	25	31	50%	27	54%
Net Annual Gas Savings (m³)	93,750	125,000	156,250	50%	276,138	100% ¹
Total Scorecard Target Achieved						125%²
Scorecard Company Incentive Achieved						\$223,212

^{1,2} Metric is capped at 200% (100% of weighted scorecard achieved). Scorecard is capped at 125%. Actual metric achievement was 221%.

Table 6.7 2024 Building Beyond Code Program Scorecard Results

Metrics	Metric Target Levels			Weight	Achievement	Weighted % of Scorecard Achieved
	Lower Band	Target	Upper Band			
Residential Savings by Design – ENERGY STAR Homes	1,500	2,000	2,500	15%	749	6%
Residential Savings by Design – Net Zero Energy Ready Homes	8	10	13	15%	18	27%
Commercial Savings by Design – Participants	23	31	39	30%	26	25%
Affordable Housing Savings by Design – Participants	16	21	26	30%	28	40%
Commercial Air Tightness Testing – Participants	5	6	8	5%	8	7%
Commercial Air Tightness Testing – Qualified Agents	8	10	13	5%	24	10%
Total Scorecard Target Achieved						114%
Scorecard Company Incentive Achieved						\$1,333,363

6.2 Lost Revenue Adjustment Mechanism

The Lost Revenue Adjustment Mechanism (“LRAM”) allows Enbridge Gas to recover the lost distribution revenue associated with DSM activity. For more information on the LRAM, refer to Section 9.4 of the 2023 DSM Framework.

In 2024, lost distribution revenues associated with DSM activity was \$0.257 million, as outlined in Table 6.8 below.

Table 6.8 2024 LRAM Statement^{1,2}

Rate Class	LRAM Volumes (10 ³ m ³)	Distribution Margin Rates (\$/10 ³ m ³)	Revenue Impact
	(a)	(b)	(a) x (b)
<u>EGD Rate Zone</u>			
Rate 110	5,006	\$13.36	\$66,890
Rate 115	0	\$6.46	\$0
Rate 135	928	\$40.58	\$37,668
Rate 145	164	\$29.00	\$4,754
Rate 170	703	\$4.42	\$3,106
<u>Union Rate Zones</u>			
South - M4	4,256	\$18.39	\$78,247
South - M5	429	\$32.99	\$14,156
South - M7	13,045	\$1.97	\$25,751
South - T1	944	\$1.52	\$1,438
South - T2	7,621	\$0.30	\$2,279
North - 20	3,390	\$5.79	\$19,641
North - 100 ³	878	\$2.83	\$2,489
Total	37,654		\$622,076

¹ Rate 1 and Rate 6 are not included in the LRAM amount for clearance above as these rate classes are covered under the Average Use True-Up Variance Account (AUTUVA).

² Rates M1 and M2 (Union rate zones) are not included in the LRAM amounts for clearance.

³ For clarity, Rate 100 (EGD rate zone) is not included in the LRAM and is recovered through fixed charges.

6.3 Cost-Effectiveness Results

As described in Section 2.5, cost-effectiveness screening for the 2023 DSM Framework uses the “TRC-Plus” test.

Table 6.9 provides the program and portfolio TRC-Plus results.

Table 6.9 2024 TRC-Plus Summary

Program	NPV TRC-Plus Benefits (a)	Program Costs (b)	Incremental Costs (c)	Increased Resource Costs (d)	Total TRC Costs (b+c+d)	Net TRC-Plus (a-e)	TRC-Plus Ratio (a/e)
Residential	\$558,966,035	\$6,367,952	\$799,913,291	\$598,032,150	\$1,404,313,393	(\$845,347,359)	0.40
Low-Income	\$67,888,390	\$8,241,896	\$26,161,717	\$790,182	\$35,193,795	\$32,694,595	1.93
Commercial	\$158,799,927	\$7,429,388	\$52,567,181	\$13,269,900	\$73,266,469	\$85,533,458	2.17
Industrial	\$204,187,774	\$4,048,302	\$50,643,826	\$2,441,643	\$57,133,771	\$147,054,002	3.57
Large Volume	\$6,316,623	\$235,606	\$1,854,489	\$584,038	\$2,674,132	\$3,642,491	2.36
Energy Performance	\$1,258,513	\$752,765	\$0	\$0	\$752,765	\$505,748	1.67
Total DSM Portfolio	\$996,158,748	\$26,323,144	\$931,140,503	\$615,117,912	\$1,587,169,595	(\$591,010,847)	0.63

6.4 Weighted Average Measure Life

With the approval of Enbridge Gas's proposed change to net annual natural gas savings described in Section 2, the OEB directed that Enbridge Gas's WAML should not fall below 14 years across its portfolio of programs, excluding the Large Volume Program, "to ensure the approved DSM plan maintains sufficient longer-term benefits"⁴⁵ and avoiding a scenario of Enbridge Gas focusing on measures with a shorter Estimated Useful Life ("EUL") to maximize claimed first-year savings.

The portfolio WAML is calculated as the sum of a program year's cumulative net natural gas savings divided by the sum of that program year's net annual natural gas savings. The WAML calculation and the minimum WAML threshold are subject to adjustments to account for changes in measure life assumptions outside of the utilities control. For example, updates to TRM measure lives and the Custom Measure Life table as may be revised as part of the annual TRM review process.

Through the Net-to-Gross ("NTG") study that was completed in 2023, the EC produced two separate NTG ratios for the offerings studied, a first year NTG ratio, intended to apply to first year savings, and a cumulative NTG ratio, intended to apply to cumulative savings. However, when the two different NTG ratios are applied in the WAML ratio, it results in a distortion of the WAML in comparison to its original conceptualization.

This was identified as a concern during the OEB Staff-led 2023 Annual Verification process and Enbridge Gas expects it will be resolved during the 2024 Annual Verification process. For the purposes of calculating the 2024 WAML for the Draft Annual Report, Enbridge Gas has applied the cumulative NTG ratio in both the numerator (cumulative savings) and denominator (first-year savings).

For 2024, Enbridge Gas has calculated the WAML to be 19.79, which is above the minimum threshold of 14 years. See Table 6.10 below for the values used to determine the WAML.

Table 6.10 2024 Weighted Average Measure Life Calculation

Item	Values
Net Cumulative Natural Gas Savings (Excluding Large Volume) (m ³)	2,574,977,531
Net Annual Natural Gas Savings (Excluding Large Volume)* (m ³)	130,258,089
Weighted Average Measure Life	19.79

* The net annual natural gas savings in this table does not match the other values in this report as it was calculated using the cumulative NTG ratio rather than the first year NTG ratio as described above

⁴⁵ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Section 4.6, p. 67.

6.5 End-of-Term Natural Gas Reduction Incentive

Background

Within the 2023 DSM Framework, the OEB stipulated Enbridge Gas's eligibility for an End-of-Term Natural Gas Reduction Incentive. Enbridge Gas may earn an End-of-Term Natural Gas Reduction Incentive of up to \$30 million "if, at the end of the 3-year term, total volume of natural gas sold to Enbridge Gas's Ontario customers in 2025 is 1.5% less than total volume of natural gas consumed by Enbridge Gas's Ontario customers in 2022 on a weather normalized basis."⁴⁶ The Decision also detailed a separate 75% target (1.125% reduction in total volume of natural gas consumed) that would result in a \$15 million incentive. These potential incentives are in addition to the annual shareholder incentive related to program scorecards. There are no targets or incentives between the specified 75% and 100% targets.

Enbridge Gas will use the actual weather normalized gas throughput volumes for 2022 and will be comparing that to the actual weather normalized gas throughput volumes for 2025. As opposed to general service rate classes, contract market rate class throughput is not weather normalized, as these customers' gas usage is not weather dependent, but rather is process dependent. Table 6.11 compares 2022, 2023 and 2024 weather normalized general service rate classes and actual contract account rate classes throughput, showing an increased throughput of 5.12%.

Table 6.11 Annual Natural Gas Throughput Comparison*

Item	2022	2023	2024
Total Weather Normalized Volume - General Service Rate Classes (million m ³)	15,635	15,936	16,012
Total Actual Volume - Contract Market Rate Classes (million m ³)	10,533	10,935	11,497
Total Volume (million m³)	26,168	26,871	27,509
Change Over 2022	N/A	2.68%	5.12%

* Only includes rate classes eligible for DSM and subject to DSM costs.

⁴⁶ Decision and Order, Application for Multi-Year Natural Gas Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 8.

6.6 Budgets and Spending

Total 2024 DSM spend was \$302.11 million, compared to an OEB-approved budget of \$183.08 million. See Table 6.12 for more details. As described in the 2023 DSM Framework, Enbridge Gas can be eligible to overspend by up to 15% of the total OEB-approved budget. The ability to overspend “is meant to allow Enbridge Gas to pursue programs which prove to be very successful.”⁴⁷ For more details refer to Section 12.2 of the 2023 DSM Framework. There is, however, an exception to this rule for the Residential Whole Home Offering, whereby Enbridge Gas is allowed to exceed the 15% overspend. Context is provided in Section 4.1.1.

Table 6.12 2024 Budget/Spend/Variance

Item	OEB-Approved Budget	Actual Spend	Variance
<u>Residential Program Costs</u>			
Residential Whole Home	\$67,771,524	\$197,439,979	\$129,668,455
Residential Single Measure	\$4,931,408	\$73,670	(\$4,857,738)
Residential Smart Home	\$4,247,687	\$3,525,791	(\$721,896)
<i>Residential Administrative Costs</i>	\$1,905,211	\$1,974,779	\$69,568
Residential Program Total	\$78,855,831	\$203,014,220	\$124,158,389
<u>Low-Income Program Costs</u>			
Home Winterproofing	\$15,352,623	\$21,866,467	\$6,513,844
Affordable Housing Multi-Residential	\$7,624,376	\$9,394,725	\$1,770,349
<i>Low-Income Administrative Costs</i>	\$1,573,850	\$1,385,537	(\$188,313)
Low-Income Program Total	\$24,550,848	\$32,646,728	\$8,095,880
<u>Commercial Program Costs</u>			
Commercial Custom	\$12,618,196	\$10,340,226	(\$2,277,970)
Prescriptive Downstream	\$2,601,901	\$2,496,649	(\$105,253)
Direct Install	\$5,090,069	\$6,149,253	\$1,059,184
Prescriptive Midstream	\$2,585,754	\$2,156,112	(\$429,642)
<i>Commercial Administrative Costs</i>	\$3,942,935	\$4,209,840	\$266,906
Commercial Program Total	\$26,838,855	\$25,352,080	(\$1,486,775)
<u>Industrial Program Costs</u>			
Industrial Custom	\$14,815,296	\$11,767,282	(\$3,048,014)
<i>Industrial Administrative Costs</i>	\$4,225,129	\$3,717,549	(\$507,580)
Industrial Program Total	\$19,040,425	\$15,484,831	(\$3,555,594)
<u>Large Volume Program Costs</u>			
Direct Access	\$2,723,400	\$2,244,899	(\$478,501)
<i>Large Volume Administrative Costs</i>	\$231,355	\$230,241	(\$1,114)
Large Volume Program Total	\$2,954,755	\$2,475,139	(\$479,616)
<u>Energy Performance Program Costs</u>			
Whole Building Pay for Performance	\$1,171,140	\$1,033,739	(\$137,401)
<i>Energy Performance Administrative Costs</i>	\$110,238	\$47,726	(\$62,513)
Energy Performance Program Total	\$1,281,378	\$1,081,465	(\$199,914)
<u>Building Beyond Code Program Costs</u>			
Residential Savings by Design	\$4,909,760	\$2,602,898	(\$2,306,862)
Commercial Savings by Design	\$1,406,328	\$974,375	(\$431,953)
Affordable Housing Savings by Design	\$2,562,624	\$2,883,904	\$321,280
Commercial Air Tightness Testing	\$515,436	\$348,760	(\$166,676)

⁴⁷ Decision and Order, Application for Multi-Year Demand Side Management Plan (2022 to 2027), EB-2021-0002, November 15th, 2022, Schedule E, p. 35.

Item	OEB-Approved Budget	Actual Spend	Variance
<i>Building Beyond Code Administrative Costs</i>	\$557,206	\$657,377	\$100,171
Building Beyond Code Program Total	\$9,951,354	\$7,467,314	(\$2,484,040)
Program Subtotal	\$163,473,447	\$287,521,777	\$124,048,330
<u>Administration Costs</u>			
Portfolio Administration	\$9,152,676	\$6,563,989	(\$2,588,687)
System Maintenance & Improvements	\$1,089,360	\$714,991	(\$374,369)
Municipal Engagement	\$1,775,657	\$1,501,861	(\$273,796)
Administration Total	\$12,017,693	\$8,780,841	(\$3,236,852)
<u>Evaluation and Regulatory Costs</u>			
EM&V	\$2,832,336	\$2,520,363	(\$311,973)
Regulatory & Stakeholding	\$762,552	\$482,022	(\$280,530)
Process and Market Evaluation	\$544,680	\$119,008	(\$425,672)
Evaluation and Regulatory Total	\$4,139,568	\$3,121,393	(\$1,018,175)
<u>Research and Development Costs</u>			
Research Innovation Fund	\$2,777,868	\$1,991,228	(\$786,640)
Market Data	\$673,351	\$694,574	\$21,223
Research and Development Total	\$3,451,219	\$2,685,802	(\$765,417)
Portfolio Subtotal	\$19,608,480	\$14,588,035	(\$5,020,445)
Total DSM Costs	\$183,081,927	\$302,109,812	\$119,027,885

Included in the spend amounts above are customer incentives deferred to future years, referred to as Deferred Participant Costs (“DPCs”), for offerings where incentives are paid when future milestones/activities are reached. The DPCs will be used when the customer incentive commitment is due. For more information on DPCs, please refer to Section 12.2.1 of the 2023-2025 DSM Framework.

Specifically, the deferred amounts are:

- Savings by Design Affordable Housing Offering: \$2,062,000
- Savings by Design Residential Offering: \$646,688
- Energy Performance Whole Building Pay for Performance: \$680,600

6.6.1 Municipal Engagement

Introduction

Enbridge Gas’s municipal engagement activities support municipalities in developing and executing energy efficiency initiatives, leveraging existing DSM offerings alongside complementary municipal activities to reduce energy usage and greenhouse gas emissions.

Key Focus Areas with Municipalities in 2024

Energy Planning Consultation

Enbridge Gas was actively engaged with municipalities in 2024 to support their energy planning, provide clarity around the evolution of Enbridge Gas’s DSM portfolio, and share Enbridge Gas’s expertise to support climate action initiatives being developed by municipalities.

In 2024, Enbridge Gas launched two “toolbox” offerings meant to empower municipalities to develop and actualize their Climate Action Plans and enabling initiatives. These offerings are detailed below.

Home Energy Retrofit Orientation (“HERO”): a home energy retrofit orientation workshop is delivered to homeowners, aiding them in understanding heating, cooling, and ventilation systems, and walking through the process of undertaking a home energy retrofit.

Building Beyond Code (“BBC”): the building beyond code workshop is a half-day, in-person session delivered to municipal staff, who gain a better understanding of building science and energy efficiency regulations applicable to municipal projects.

Financial Support

Enbridge Gas continued to deliver a Municipal Climate Action Offer (“MCAO”) providing a maximum of \$10,000 to eligible municipalities to support climate change action. In 2024, more than 60 municipalities participated in the MCAO. Municipalities used these funds to develop and/or implement various climate change action initiatives.

Promotion

Enbridge Gas worked with municipalities to enhance awareness of energy conservation opportunities and the available programs that support municipal actions. Promotional initiatives included:

- Engaging in various events throughout Ontario, building awareness with local businesses and supporting energy efficiency goals for new and retrofit municipal buildings.
- Exhibition in community events as a platform to actively engage with residents and discuss available residential DSM offerings.

Data Access

In 2024, Enbridge Gas provided 44 municipalities with natural gas consumption data within their jurisdiction. Enbridge Gas also provided municipalities with historical DSM program participation data for their communities and supplied research information in consultation with municipalities to support their planning and reporting activities.

Collaborative Initiatives

Durham Greener Homes: Enbridge Gas supports the Energy Concierge Service of the Durham Greener Homes initiative. The service provides homeowners with guidance and direction, including project management assistance throughout the retrofit journey. The service is available to all homeowners in the Regional Municipality of Durham.

Heat Loss Data and Insights: Enbridge Gas is partnering with select municipalities to make heat loss images and insights available within an open platform to home and building owners in those municipalities, to encourage envelope energy retrofits.

6.6.2 Research and Development

Introduction

Enbridge Gas research and development activities are comprised of two main areas: the Research and Innovation Fund (“RIF”) and Market Data. The RIF is intended to sustain and grow the opportunities in the existing DSM portfolio by investigating new measures and innovative program designs, identifying technical and market barriers of new energy efficiency opportunities, testing new concepts, and sustaining and updating technical resources. The RIF is also intended to support the current objectives and guiding principles outlined in the 2023 DSM Framework and to be responsive to the ever-changing energy landscape in Ontario. The Market Data fund is intended to provide the necessary subscriptions, datasets and external tools required to inform programs about potential areas of opportunity for energy savings and to better understand and segment Enbridge Gas markets.

The Research and Innovation Fund was established in 2023. Enbridge Gas developed a portfolio of research designed to support innovation, pilot programs, research and collaboration across the industry to continue delivering DSM programming in Ontario that drives high levels of cost-effective energy savings in support of the objectives of government. 2024 saw a continuation of several major projects initiated in 2023, as well as the onboarding of new projects both in support of both current and future programming.

Research Undertaken Throughout 2024

Market Analysis: this research area involves quantitative and qualitative assessments of Enbridge Gas's markets to deepen the company's understanding of market dynamics that influence the uptake of energy efficient technologies and practices. The goal of these studies is to generate actionable, data-driven insights to enhance program participation.

A key area of focus was conducting market characterization studies to enhance insight into specific commercial and industrial segments. These studies were crucial in updating Enbridge Gas's understanding of the evolving market conditions following the COVID-19 pandemic and subsequent global economic shifts. Enbridge Gas conducted market characterization studies for the following sectors:

- Multi-Residential (including Affordable Housing)
- Small Commercial
- Midstream
- Small Industrial

The main objective of these studies was to understand current energy consumption habits. Secondary objectives included understanding decision making processes, buying patterns, perceived barriers, and enablers to adopting energy efficient technologies and practices. Enbridge Gas expects these studies to be revisited on an ongoing cycle of approximately three to five years.

In 2024, Enbridge Gas also initiated several studies to gain insights into how specific sectors and segments perceive current DSM programs and to identify areas of opportunity for future programming. Commercial and industrial customers and partners such as trade allies and municipalities were engaged. Studies also considered programming opportunities in new construction markets (commercial, residential, and affordable housing) stemming from upcoming code changes and market trends.

Technical Analysis: this research area involves studies intended to support the consistent and accurate estimation of natural gas savings of technologies in current or future DSM programming. It also includes pre-feasibility technology assessments used as early stage analyses to determine future opportunities for in-depth technical studies and research to develop and maintain calculators and modeling tools. For 2024, Enbridge Gas has prioritized technical analyses in the areas of:

- **Residential Net Zero Energy Ready:** a study to understand the energy conservation potential and opportunities in the deep energy retrofit market for the low-rise residential sector, beyond the current portfolio of programs. The study analyzed three housing archetypes—detached, semi-detached, and row houses—across various vintages and climate zones in Ontario, utilizing energy modeling on 900 homes using NRCan's Hot2000 software.
- **Commercial Smart Thermostat:** initiated in 2023, this multi-phase project developed a substantiation document supporting the savings the Commercial Adaptive Thermostat measure, which was submitted for addition to the Ontario Technical Resource Manual (TRM).
- **Residential Single Measure (Envelope):** a study to confirm input assumptions and create substantiation documents for a Residential Single Measure Offering.
- **Ottawa MURB Building Assessments (Partial Electrification):** a study to assess six commercial MURBs to determine options for electrifying part of their heating load.
- **Efficient Rooftop Units for Commercial/Industrial Buildings:** a multi-phase study to understand the technical and market conditions for commercial RTUs and implement a program focused on efficient features above the standard practice baseline in Ontario. The first phase of this research resulted in the development of a new substantiation document for the Commercial Hybrid RTU measure, which was submitted for addition to the Ontario TRM.
- **HRV, ERV, and Dock Door Seals:** phase 1 of this multi-phase project was completed in 2024 and involved the review of existing substantiation documents for Commercial ERV/ERVs, Commercial Dock Door Seals, and Commercial High Volume Low Speed ("HVLS") De-stratification Fans.
- **Heat Pump Research:** projects working toward the substantiation of energy savings for new air source heat pump and cold climate air source heat pump DSM measures for the residential sector prescriptive offering.

Memberships and Associations: in an effort to stay connected and collaborate with other entities involved with energy conservation, Enbridge Gas is involved with a number of associations to identify innovative technologies and program designs, collaborative opportunities for technical research and other RIF related research projects. These memberships and associations are also a critical resource for conducting jurisdictional scans. The following memberships and associations are being supported using RIF funding in 2024:

- **E Source:** E Source offers industry-leading research, predictive data science, and solution services to help utilities make better decisions to support customers, programming, and the planet.
- **GTI Energy:** GTI Energy offers a consortium approach, through which a group of interested companies fund and help steer the direction of a project, while GTI Energy manages the program and performs the research. Enbridge Gas is involved in two collaborative programs offered by GTI:
 - Utilization Technology Development: a member-controlled partnership of gas distribution companies that conducts near-term applied research to develop, test, and deploy energy-efficient end-use technologies.
 - Emerging Technology Program: a member-driven collaborative to accelerate the market introduction and acceptance of new emerging technologies to feed utility energy efficiency programs.
- **Northeast Energy Efficiency Partnerships (“NEEP”) Heating Electrification Initiative:** subscribers receive enhanced access to the ccASHP Product List that includes documented products that meet specific technical requirements. The subscription also includes access to other NEEP resources/tools, meetings, industry news, and technical expertise.

Market Data: the purpose of this funding is to cover the cost of external tools, subscriptions and datasets of information that allow segmentation and classification of customers, including demographics, industry and building stock information. These tools and datasets are essential in identifying potential participants that may be well suited for targeted DSM program offerings. By leveraging this market data, offers can be tailored to the specific needs and characteristics of different customer segments, ensuring more effective delivery of natural gas savings opportunities. Additionally, this market intelligence will support ongoing efforts to build market capacity within each sector, helping to strengthen the overall market structure for energy efficiency while increasing the long-term program impact.

For 2024, Enbridge Gas continued to acquire data from the following sources:

- Utility Analytics Institute
- Municipal Property Assessment Corporation
- The D&B Companies of Canada
- Environics Analytics Group

Appendix A: 2024 Avoided Costs

The inflation factor used is 4.26%. The discount rate is 8.43%. Avoided costs are presented in nominal dollars.

Gas Avoided Costs (EGD Rate Zone)				
	Baseload (\$/m ³)		Weather Sensitive (\$/m ³)	
Year	Rate	NPV	Rate	NPV
2024	0.150	0.150	0.179	0.179
2025	0.187	0.323	0.223	0.384
2026	0.205	0.497	0.245	0.593
2027	0.254	0.696	0.292	0.822
2028	0.278	0.898	0.318	1.052
2029	0.295	1.094	0.336	1.276
2030	0.315	1.288	0.358	1.496
2031	0.323	1.472	0.368	1.705
2032	0.320	1.639	0.366	1.897
2033	0.340	1.803	0.389	2.085
2034	0.363	1.964	0.413	2.269
2035	0.382	2.121	0.435	2.447
2036	0.411	2.276	0.466	2.624
2037	0.443	2.431	0.500	2.798
2038	0.468	2.582	0.528	2.968
2039	0.506	2.732	0.569	3.137
2040	0.533	2.878	0.598	3.301
2041	0.557	3.019	0.625	3.459
2042	0.565	3.150	0.636	3.608
2043	0.585	3.276	0.660	3.749
2044	0.613	3.398	0.691	3.886
2045	0.644	3.515	0.725	4.019
2046	0.711	3.635	0.795	4.153
2047	0.750	3.752	0.838	4.283
2048	0.792	3.865	0.883	4.409
2049	0.835	3.976	0.931	4.532
2050	0.881	4.083	0.981	4.652
2051	0.930	4.188	1.033	4.768
2052	0.980	4.289	1.088	4.881
2053	1.034	4.388	1.146	4.991

Gas Avoided Costs (Union Rate Zones)				
	Baseload (\$/m ³)		Weather Sensitive (\$/m ³)	
Year	Rate	NPV	Rate	NPV
2024	0.150	0.150	0.179	0.179
2025	0.187	0.323	0.223	0.384
2026	0.205	0.497	0.245	0.593
2027	0.254	0.696	0.292	0.822
2028	0.278	0.898	0.318	1.052
2029	0.295	1.094	0.336	1.276
2030	0.315	1.288	0.358	1.496
2031	0.323	1.472	0.368	1.705
2032	0.320	1.639	0.366	1.897
2033	0.340	1.803	0.389	2.085
2034	0.363	1.964	0.413	2.269
2035	0.382	2.121	0.435	2.447
2036	0.411	2.276	0.466	2.624
2037	0.443	2.431	0.500	2.798
2038	0.468	2.582	0.528	2.968
2039	0.506	2.732	0.569	3.137
2040	0.533	2.878	0.598	3.301
2041	0.557	3.019	0.625	3.459
2042	0.565	3.150	0.636	3.608
2043	0.585	3.276	0.660	3.749
2044	0.613	3.398	0.691	3.886
2045	0.644	3.515	0.725	4.019
2046	0.711	3.635	0.795	4.153
2047	0.750	3.752	0.838	4.283
2048	0.792	3.865	0.883	4.409
2049	0.835	3.976	0.931	4.532
2050	0.881	4.083	0.981	4.652
2051	0.930	4.188	1.033	4.768
2052	0.980	4.289	1.088	4.881
2053	1.034	4.388	1.146	4.991

Water Avoided Costs				
Year	EGD Rate Zone (\$/1000 Litres)		Union Rate Zones (\$/1000 Litres)	
	Rate	NPV	Rate	NPV
2024	1.021	1.021	1.021	1.021
2025	1.064	2.002	1.064	2.002
2026	1.109	2.946	1.109	2.946
2027	1.157	3.853	1.157	3.853
2028	1.206	4.725	1.206	4.725
2029	1.257	5.564	1.257	5.564
2030	1.311	6.371	1.311	6.371
2031	1.367	7.147	1.367	7.147
2032	1.425	7.892	1.425	7.892
2033	1.486	8.609	1.486	8.609
2034	1.549	9.299	1.549	9.299
2035	1.615	9.962	1.615	9.962
2036	1.684	10.599	1.684	10.599
2037	1.756	11.212	1.756	11.212
2038	1.830	11.802	1.830	11.802
2039	1.908	12.369	1.908	12.369
2040	1.990	12.913	1.990	12.913
2041	2.074	13.437	2.074	13.437
2042	2.163	13.941	2.163	13.941
2043	2.255	14.426	2.255	14.426
2044	2.351	14.892	2.351	14.892
2045	2.451	15.339	2.451	15.339
2046	2.555	15.770	2.555	15.770
2047	2.664	16.184	2.664	16.184
2048	2.778	16.582	2.778	16.582
2049	2.896	16.965	2.896	16.965
2050	3.019	17.333	3.019	17.333
2051	3.148	17.687	3.148	17.687
2052	3.282	18.028	3.282	18.028
2053	3.422	18.355	3.422	18.355

Electricity Avoided Costs		
	Residential/Commercial/Industrial	
Year	Electricity (\$/kWh)	
	Rate	NPV
2024	0.126	0.126
2025	0.131	0.247
2026	0.137	0.363
2027	0.142	0.475
2028	0.149	0.582
2029	0.155	0.685
2030	0.161	0.785
2031	0.168	0.880
2032	0.176	0.972
2033	0.183	1.061
2034	0.191	1.145
2035	0.199	1.227
2036	0.207	1.306
2037	0.216	1.381
2038	0.225	1.454
2039	0.235	1.524
2040	0.245	1.591
2041	0.256	1.655
2042	0.266	1.717
2043	0.278	1.777
2044	0.290	1.834
2045	0.302	1.890
2046	0.315	1.943
2047	0.328	1.994
2048	0.342	2.043
2049	0.357	2.090
2050	0.372	2.135
2051	0.388	2.179
2052	0.404	2.221
2053	0.422	2.261

Avoided Carbon Costs		
	Residential/Commercial/Industrial	
Year	(\$/m³)	
	Rate	NPV
2024	0.155	0.155
2025	0.184	0.331
2026	0.213	0.528
2027	0.242	0.742
2028	0.271	0.974
2029	0.300	1.220
2030	0.329	1.479
2031	0.329	1.729
2032	0.329	1.969
2033	0.329	2.200
2034	0.329	2.422
2035	0.329	2.635
2036	0.329	2.840
2037	0.329	3.038
2038	0.329	3.227
2039	0.329	3.410
2040	0.329	3.585
2041	0.329	3.754
2042	0.329	3.916
2043	0.329	4.072
2044	0.329	4.222
2045	0.329	4.366
2046	0.329	4.505
2047	0.329	4.638
2048	0.329	4.766
2049	0.329	4.889
2050	0.329	5.008
2051	0.329	5.122
2052	0.329	5.231
2053	0.329	5.337

Appendix B: 2024 Target Setting Methodology

Offering	Metric	Metric Weighting	Lower Band¹ (75%)	2024 Target (100%)	Upper Band¹ (125%)
Residential Program Scorecard					
Residential Whole Home Offering	Net Annual Gas Savings (m³)	100%	75% of Target	$\left(\frac{2023 \text{ Metric Achievement}}{2023 \text{ Spend}}\right) \times 2024 \text{ Budget} \times \left(\frac{1.02 \text{ Productivity Factor}}{\text{Inflation Adjustment}}\right)$	125% of Target
Residential Single Measure Offering					
Residential Smart Home Offering					
Low-Income Program Scorecard					
Home Winterproofing Offering	Single Family Net Annual Gas Savings (m³)	50%	75% of Target	$\left(\frac{2023 \text{ Metric Achievement}}{2023 \text{ Spend}}\right) \times 2024 \text{ Budget} \times \left(\frac{1.02 \text{ Productivity Factor}}{\text{Inflation Adjustment}}\right)$	125% of Target
Affordable Housing Multi-Residential	Multi-Residential Net Annual Gas Savings (m³)	50%	75% of Target	$\left(\frac{2023 \text{ Metric Achievement}}{2023 \text{ Spend}}\right) \times 2024 \text{ Budget} \times \left(\frac{1.02 \text{ Productivity Factor}}{\text{Inflation Adjustment}}\right)$	125% of Target
Commercial Program Scorecard					
Commercial Custom Offering	Large Customer Net Annual Gas Savings (m³)²	50%	75% of Target	$\left(\frac{2023 \text{ Metric Achievement}}{2023 \text{ Spend}}\right) \times 2024 \text{ Budget} \times \left(\frac{1.02 \text{ Productivity Factor}}{\text{Inflation Adjustment}}\right)$	125% of Target
Prescriptive Downstream Offering					
Direct Install Offering	Small Customer Net Annual Gas Savings (m³)²	50%	75% of Target	$\left(\frac{2023 \text{ Metric Achievement}}{2023 \text{ Spend}}\right) \times 2024 \text{ Budget} \times \left(\frac{1.02 \text{ Productivity Factor}}{\text{Inflation Adjustment}}\right)$	125% of Target
Prescriptive Midstream Offering					
Industrial Program Scorecard					
Industrial Custom Offering	Net Annual Gas Savings (m³)	100%	75% of Target	$\left(\frac{2023 \text{ Metric Achievement}}{2023 \text{ Spend}}\right) \times 2024 \text{ Budget} \times \left(\frac{1.02 \text{ Productivity Factor}}{\text{Inflation Adjustment}}\right)$	125% of Target
Large Volume Program Scorecard					
Direct Access Offering	Net Annual Gas Savings (m³)	100%	75% of Target	$\left(\frac{2023 \text{ Metric Achievement}}{2023 \text{ Spend}}\right) \times 2024 \text{ Budget} \times \left(\frac{1.02 \text{ Productivity Factor}}{\text{Inflation Adjustment}}\right)$	125% of Target
Energy Performance Program Scorecard					
Whole Building Pay for Performance (P4P)	Number of Participants	50%	19	25	31
	Net Annual Gas Savings (m³)	50%	93,750	125,000	156,250

Building Beyond Code Program Scorecard					
Residential Savings By Design	Number of ENERGY STAR Homes	15%	1,500	2,000	2,500
	Number of Net Zero Ready Homes	15%	8	10	13
Commercial Savings By Design	Number of Participants	30%	23	31	39
Affordable Housing Savings By Design	Number of Participants	30%	16	21	26
Commercial Air Tightness Testing	Number of Participants	5%	5	6	8
	Number of Qualified Agents	5%	8	10	13

¹ When the calculation of the Upper and Lower Bands of the 100% Targets result in non-integer amounts, the Scorecard Incentive will be calculated based on these precise thresholds.

² Large commercial customers have a three-year average annual consumption greater than/or equal to 100,000 m³/year. Small commercial customers are below 100,000 m³/year.

Appendix C: Offering Details

C1 Residential Whole Home Offering

HER+ Eligibility Criteria

All projects require a pre-retrofit assessment prior to the work being completed, and a post-retrofit assessment after the retrofits are completed by an REA. Any of the NRCAN approved Registered Service Organizations can perform the audits.

The total rebate amount cannot exceed the total cost of the assessments and the retrofits completed by the participants. The rebate amount will be adjusted in cases where it exceeds the cost of the audits and retrofits.

No retrofits may be completed prior to the pre-retrofit assessment without the prior consent of Enbridge. The program may be subject to change or cancellation without notice at any time.

The offering is available for the following types of homes:

- Single and semi-detached homes
- Row housing
- Townhomes
- Mobile homes on a permanent foundation
- Permanently moored floating homes
- Mixed use buildings that have more than 50% of its area as residential living space.
- Low-rise MURBs (three storeys or less with a building area of 600 m² or less). MURBs with three or more units cannot receive an incentive for heat pumps or thermostats.

HER+ Incentive Structure

The HER+ program follows NRCAN's rules for measure eligibility. Maximum rebate per premise:

- \$5,600 for owner occupied primary residences not heated with Enbridge natural gas at the time of their pre-retrofit or post-retrofit assessment
- \$10,600 enhanced rebate for homes space heated with Enbridge natural gas at the time of their pre-retrofit or post-retrofit assessment

Category	Measure	Details	Package A	Package B	Package C	Package D
			EGD Owner Occupied	Non-EGD Owner Occupied	EGD Non-Owner Occupied	Off-Grid Funded by NRCAN
Assessment Cost	Assessment Cost	One-time payment to each participant, up to a maximum of \$600.	\$600	\$600	\$600	\$600
Boiler, furnace (off-grid communities)	Replace an oil-fired boiler with an ENERGY STAR certified residential oil-fired boiler	ENERGY STAR certified with an AFUE ≥ 87%.				\$3,500
	Replace a boiler with an ENERGY STAR certified residential gas-fired boiler	ENERGY STAR certified with an AFUE ≥ 90%.				\$1,600
	Replace oil-fired furnace with an ENERGY STAR certified residential oil-fired furnace	ENERGY STAR certified with an AFUE ≥ 95%.				\$3,500
	Replace a furnace with an ENERGY STAR certified	ENERGY STAR certified with an AFUE ≥ 97%.				\$1,600

	residential gas-fired furnace					
	For mobile homes on a permanent foundation, replace a fossil-fuel burning furnace or boiler with an eligible residential gas-fired furnace for relocatable buildings	Gas-fired furnace for relocatable buildings with an AFUE ≥96%.				\$1,600
Renewable energy systems	Solar photovoltaic panels	Installation of a photovoltaic system with a capacity equal to, or greater than, 1.0 kW.	\$1,000/kW (Up to \$5,000)	\$1,000/kW		\$1,300/kW
Resiliency measures	Resiliency measures*	Batteries connected to photovoltaic systems.	\$1,000	\$1,000		\$1,300
		Roofing membrane: self-adhering roofing underlayment applied to entire roof.	\$150	\$150		\$195
		Basement wall waterproofing.	\$875	\$875		\$1,137.50
		Moisture proofing of 100% of crawlspace floor, walls, and headers.	\$600	\$600		\$780
Water heating	Heat pump water heater	Capacity ≤ 55 gallons: Energy Factor ≥ 2.00 with First Hour Rating ≥ 50 gallons per hour or Uniform Energy Factor ≥ 2.00 First Hour Rating ≥ 45 gallons per hour Capacity > 55 gallons: Energy Factor ≥ 2.20 First Hour Rating ≥ 50 gallons per hour or Uniform Energy Factor ≥ 2.20 First Hour Rating ≥ 45 gallons per hour	\$1,300	\$1,000	\$1,300	\$1,300
Space Heating - Geothermal (ground source) heat pump	Install a ground source heat pump	Water-to-water, brine-to-water and Direct Exchange systems are not eligible.	\$6,500	\$5,000	\$6,500	\$5,000
	Replace a ground source heat pump	Water-to-water, brine-to-water and Direct Exchange systems are not eligible.	\$4,000	\$3,000	\$4,000	\$3,900
Space Heating - Air source heat pump	ENERGY STAR certified air source heat pump Mini- or multi-split ducted or ductless system with two warm air supply outlets or indoor heads	Install a complete new or replacement ENERGY STAR certified air source heat pump system (other than cold climate air source heat pumps), capable of distributing heat throughout the entire conditioned space in the home, including the basement. A minimum of one warm air supply outlet or indoor head is required on every floor, including each level of a split-level, mezzanine level, etc., of each dwelling unit in the building. The newly installed system must meet the following criteria: - Minimum total rated heating capacity at 8.3 °C of 3.52 kW (12,000 Btu/h) - HSPF2 Region V ≥ 6.6 AND SEER2 ≥ 15.2 (Systems with HSPF Region IV ≥ 10 are no longer being added to the eligible product lists. Systems already listed with HSPF Region IV ≥ 10 will continue to be eligible until June 1 st , 2025).	\$3,250	\$2,500	\$3,250	\$3,249
	ENERGY STAR certified air source heat pump Central ducted system Or Mini- or multi-split ducted or ductless system with three or more warm air supply outlets or indoor heads	Install a complete new or replacement ENERGY STAR certified air source heat pump system, capable of distributing heat throughout the entire conditioned space in the home, including the basements with a height of 1.8 m or higher. A minimum of one warm air supply outlet or indoor head is required on every floor, including each level of a split-level, mezzanine level, etc., of each dwelling unit in the building. The newly installed system must meet the following criteria: - Min total rated heating capacity at 8.3 °C of 3.52 kW (12,000 Btu/h) - HSPF2 Region V ≥ 6.6 AND SEER2 ≥ 15.2 (Systems with HSPF Region IV ≥ 10 are no longer being added to the eligible product lists. Systems already listed with HSPF Region IV ≥ 10 will continue to be eligible until June 1 st , 2025).	\$5,250	\$4,000	\$5,250	\$5,000
	Cold climate air source heat pumps	Install a complete new or replacement cold climate air source heat pump system, capable of distributing heat throughout the entire conditioned space in the home, including the basement. A minimum of one warm air supply outlet or indoor head is required on every floor, including each level of a split-level, mezzanine level, etc., of each dwelling unit in the building. The newly installed system must meet the following criteria: -Minimum total rated heating capacity at 8.3 °C of 3.52	\$3,250	\$2,500	\$3,250	\$3,250

	Mini- or multi-split ducted or ductless system with two warm air supply outlets or indoor heads	kW (12,000 Btu/h) -HSPF2 Region V ≥ 6.6 AND SEER2 ≥ 15.2 (Systems with HSPF Region IV ≥ 10 are no longer being added to the eligible product lists. Systems already listed with HSPF Region IV ≥ 10 will continue to be eligible until June 1 st , 2025). -Compressor must be of variable capacity with three or more distinct operating speeds, or continuously variable speed -COP ≥ 1.8 at -15 °C (5 °F) (at maximum capacity operation) -Capacity maintenance (Max -15 °C (5 °F)/Rated 8.3 °C (47 °F)) $\geq 70\%$				
	Cold climate air source heat pumps Central ducted system Or Mini- or multi-split ducted or ductless system with three or more warm air supply outlets or indoor heads	Install a complete new or replacement cold climate air source heat pump system capable of distributing heat throughout the entire conditioned space in the home, including the basements with a height of 1.8m or higher. A minimum of one warm air supply outlet or indoor head is required on every floor, including each level of a split-level, mezzanine level, etc., of each dwelling unit in the building. The newly installed system must meet the following criteria: - Min total rated heating capacity at 8.3 °C of 3.52 kW (12,000 BTU/h) - HSPF2 Region V ≥ 6.6 AND SEER2 ≥ 15.2 (Systems with HSPF Region IV ≥ 10 are no longer being added to the eligible product lists. Systems already listed with HSPF Region IV ≥ 10 will continue to be eligible until June 1 st , 2025.) - Compressor must be of variable capacity with three or more distinct operating speeds, or continuously variable speed - COP ≥ 1.8 at -15 °C (5 °F) (at maximum capacity operation) - Capacity maintenance (Max -15 °C (5 °F)/Rated 8.3 °C (47 °F)) $\geq 70\%$	\$6,500	\$5,000	\$6,500	\$5,000
Window/ door	Window/ sliding glass door	Replace windows or sliding glass doors with ENERGY STAR most efficient models: - U-Factor of 1.05 W/m ² K or less, or - Energy Rating of 40 or more.	\$325	\$250	\$325	\$325
		Replace windows or sliding glass doors with ENERGY STAR certified models: - U-Factor of 1.22 W/m ² K or less, or - Energy Rating of 34 or more.	\$175	\$125	\$175	\$162.50
	Door	Replace hinged doors, with or without sidelites or transoms with ENERGY STAR certified models: - U-Factor of 1.22 W/m ² K or less, or - Energy Rating of 34 or more.	\$175	\$125	\$175	\$162.50
Exposed floor insulation	Exposed floor insulation	For adding insulation value of at least R20 to the entire exposed floor area (minimum area of 11m ² or 120 ft ²).	\$450	\$350	\$450	\$455
Exterior wall insulation	Exterior wall insulation	Adding insulation with a value greater than R20 to 100% of the exterior walls.	\$6,750	\$5,000	\$6,750	\$5,000
		Adding insulation with a value greater than R12 up to R20 to 100% of the exterior walls.	\$5,000	\$3,800	\$5,000	\$4,940
		Adding insulation with a value of R7.5 up to R12 to 100% of the exterior walls.	\$4,500	\$3,300	\$4,500	\$4,290
Attic	Attic insulation	Increase attic insulation to at least R50 from R12 or less.	\$2,350	\$1,800	\$2,350	\$2,340
		Increase attic insulation to at least R50 from greater than R12 up to R25.	\$800	\$600	\$800	\$780
		Increase attic insulation to at least R50 from greater than R25 up to R35.	\$325	\$250	\$325	\$325
	Cathedral ceiling /flat roof insulation	Increase cathedral/flat roof insulation to at least R28 from R12 or less.	\$800	\$600	\$800	\$780
		Increase cathedral/flat roof insulation to at least R28 from greater than R12 up to R25.	\$325	\$250	\$325	\$325
		Upgrade uninsulated cathedral ceiling/flat roof to at least R20.	\$800	\$600	\$800	\$780
Basement insulation	Foundation insulation	For adding insulation value greater than R22 to 100% of the basement wall area.	\$2,000	\$1,500	\$2,000	\$1,950
		For adding insulation value of R10 to R22 to 100% of the basement wall area.	\$1,400	\$1,050	\$1,400	\$1,365
	Crawlspace (including the header area)	For adding insulation value greater than R22 to 100% of the crawl space's exterior wall area, including the header area.	\$1,700	\$1,300	\$1,700	\$1,690

		Adding insulation value of R10 to R22 to 100% of the crawl space's exterior wall area, including the header area.	\$1,400	\$1,040	\$1,400	\$1,352
		Adding insulation value greater than R24 to 100% of the crawl space's ceiling.	\$1,050	\$800	\$1,050	\$1,040
	Basement slab insulation	Sealing and insulating at least 50% of the entire basement slab area to add a minimum of R3.5.	\$550	\$400	\$550	\$520
	Basement header insulation	Sealing and insulating at least 80% of the basement header area to add a minimum R20.	\$325	\$240	\$325	\$312
Air sealing	Air sealing	Achieve 20% better than the target.	\$1,300	\$1,000	\$1,300	\$1,300
		Achieve 10% better than the target.	\$1,050	\$810	\$1,050	\$1,053
		Achieve the target in the <i>Renovation Upgrade Report</i> .	\$725	\$550	\$725	\$715
Thermostat	Smart thermostat*	Smart thermostat replacing manual thermostat.	\$50	\$50	\$50	\$65
	Programmable thermostat*	Programmable thermostat replacing manual thermostat.	\$70	\$50	\$70	\$65

*A second measure is required.

C2 Residential Single Measure Offering

This offering was not in market in 2024.

C3 Residential Smart Home Offering

Eligibility Criteria

To be eligible for the offering, a customer must meet the following requirements:

- Be a residential Enbridge Gas customer whose residence (which may include, for example, a detached house, semi-detached house, row house, townhouse, or a mobile home with a permanent foundation) is heated with natural gas.
- Customers who have previously received a smart thermostat incentive or device through Enbridge Gas DSM programming are not eligible for the smart thermostat measure incentive.
- As part of Enbridge Gas's collaboration with the IESO, an enhanced incentive will be available to customers who meet income eligibility qualification in line with the IESO Tier 2 income qualification under IESO's Energy Assistance Program guidelines. Specifically, to qualify for Tier 2 (or "moderate income") support, the participant must:
 - Be an individual who owns, rents or leases a residence in Ontario and is listed as the primary or secondary utility account holder;
 - Not meet the eligibility for Tier 1 support (as detailed in the Low-Income program, see Section C4 for more information); and
 - Customers who qualify for Moderate-Income must be above the Low-Income cut-off, but at or below the Moderate-Income cut-off displayed below:

Number of people in the home	Low-Income household income before tax	Moderate-Income household income before tax
1	\$45,322	\$67,144
2	\$64,095	\$94,955
3	\$78,499	\$116,295

4	\$90,643	\$134,287
5	\$101,343	\$150,138
6+	\$111,015	\$164,467
7+	\$119,910	N/A

Incentive Structure

Eligible participants will receive a \$75 incentive towards the purchase of a qualifying smart control device. For participants who qualify as moderate income as part of the collaboration with the IESO, an additional incentive of \$50 (for a maximum total incentive of \$125) will be provided. During an LTO, the instant discount is \$100.

To receive the Instant Rebate, customers must apply for the discount code before purchase, using the offering's instant rebate tool. The discount can be redeemed in the following ways:

- In-store at Home Depot.
- Online at select retailers and manufacturer web stores: BestBuy.ca, ecobee.com, Store.Google.com and emersoncanada.ca/store.

Customers may also access the discount by working with a participating contractor.

To redeem the Post-Purchase rebate:

- Participants need to apply for the rebate within 60 days following the purchase of the device.
- Participants must provide a clear invoice showing the purchase date, device model, pre-tax cost, and retailer.
- The device must not be a used or refurbished model.
- The pre-tax cost must not be less than the rebate amount.

If approved, the rebate will be applied as a credit on the customer's Enbridge Gas bill.

List of Qualifying Thermostats

Brand	Product/Bundle Name	Retailer					
		ecobee	Copeland	Best Buy	Google	Home Depot	Contractor
Carrier/Bryant	Carrier C�r Thermostat (TP-WEM01-A)						✓
Carrier/Bryant	Bryant Housewise Thermostat (T6-WEM01-A)						✓
Copeland Sensi (formerly Emerson)	Sensi Touch Wi-Fi		✓			✓	✓
Copeland Sensi (formerly Emerson)	Sensi Wi-Fi Thermostat		✓			✓	✓
Copeland Sensi (formerly Emerson)	White-Rodgers Sensi Touch Wifi Thermostat						✓
ecobee	ecobee3 lite	✓		✓		✓	✓
ecobee	ecobee SmartThermostat with voice control	✓		✓		✓	✓
ecobee	Smart Security Starter Kit - SmartThermostat with voice control	✓					

ecobee	Whole Home Solution - SmartThermostat with voice control	✓					
ecobee	Smart Thermostat Enhanced	✓		✓		✓	✓
ecobee	Smart Thermostat Premium	✓		✓		✓	✓
Google Nest	Google Nest Learning Thermostat 3 rd Gen			✓		✓	✓
Google Nest	Google Nest Learning Thermostat 4 th Gen			✓	✓	✓	✓
Google Nest	Google Nest Thermostat			✓	✓	✓	✓
Google Nest	Google Nest Thermostat E						✓
Honeywell Home	Honeywell T9 Smart Thermostat with Built-In Wi-Fi			✓			✓
Honeywell Home	T9 Smart Thermostat with Smart Room Sensor						✓
Honeywell Home	T5 Gen2 Thermostat			✓		✓	✓
Lennox	iComfort S30 Smart Thermostat						✓
Trane	Trane XL824 Connected Control						✓
Trane	ComfortLink™ II XL850						✓
Trane	ComfortLink™ II XL1050						✓
Wyze	Wyze Smart Thermostat					✓	✓

C4 Home Winterproofing Offering

Eligibility Criteria

Home Eligibility Criteria

To be eligible for Home Winterproofing, participants must be an Enbridge Gas residential income-eligible customer.

Income Eligibility Criteria

Consistent with the direction given by the OEB, Enbridge Gas has revised and aligned Low Income qualification screening criteria with the Tier 1 eligibility income criteria outlined in the IESO Energy Affordability Program. To qualify for low income (Tier 1) support, the participant must be:

1. A resident of an eligible social or assisted housing property, which, for the purposes of DSM Low Income programming, includes:
 - Non-profit providers of social or assisted housing under a federal, provincial or municipally funded program, and includes, without limitation, non-profit corporations governed by the Housing Services Act 2011 (as amended or any successor legislation).
 - Public housing corporations owned by municipalities directly or through local housing corporations.
 - Non-profit housing co-operatives as defined in the Co-operative Corporations Act.
 - Non-profit housing corporations that manage or own residential (including multi-residential) buildings developed under the “Affordable Housing Program.”

- Non-profit organizations, or municipal or provincial governments that manage or own residential (including multi-residential) supportive housing, shelters and hostels.

OR

2. An individual who owns, rents, or leases a residence in Ontario and meets ONE of the following criteria:
 - Has an annual household income for the previous year that does not exceed 135% of the most recent Statistics Canada before-tax Low Income Measurement. As of December 2023, this would equate to the following limits:

Number of People in Household	Before-tax Household Income
1	\$45,322
2	\$64,095
3	\$78,499
4	\$90,643
5	\$101,343
6	\$111,015
7+	\$119,910

- Received one of the following types of assistance in the past 12 months:
 - Allowance for Survivors
 - Guaranteed Income Supplement
 - Allowance for Seniors
 - Ontario Works
 - Ontario Disability Support Program (“ODSP”)
 - Healthy Smiles Ontario Child Dental Program
- Received a Low-Income Energy Assistance Program grant or were part of the Ontario Electricity Support Program (“OESP”) within the last 12 months.
- Qualified to participate in the Tier 1 Conservation Demand Management (“CDM”) Energy Assistance Program during the past 12 months.

OR

3. A resident or an on-reserve First Nation single family home that can demonstrate one of the following:
 - A letter from Band Housing confirming that community income thresholds are within income eligibility criteria, or
 - Confirmation that the community has participated in the CDM Energy Assistance Program Tier 1 during the past 12 months.

Incentive Structure

The Home Winterproofing offering includes the following supports and services at no cost to participants:

- Pre-retrofit and post-retrofit energy assessments.
- Direct install of measures such as showerheads, aerators, adaptive thermostats, and pipe wrap.
- Weatherization services addressing identified deficiencies in the home, such as draftproofing and insulation upgrades to basements, walls and attics.
- Minor health and safety measures: A free carbon monoxide detector is installed in the home if there is none present during the pre-retrofit assessment. DAs have access to a health and safety budget to address minor issues or barriers that are posing health and safety risks to both residents and contractors that may otherwise prohibit participation in the offering. Examples of previous expenses in this category include:
 - Mold testing.

- Minor window repairs to mitigate water penetration through a window.
- Installing baffles in the attic.
- Ceiling ventilation.
- Bathroom exhaust fan installation.
- Animal feces or dead animal removal.
- Insulation removal due to feces or mold.
- Vermiculite testing.

C5 Affordable Housing Multi-Residential Offering

Eligibility Criteria

Participants must be an Enbridge Gas low-income qualified* MURB customer.

*To be eligible for participation in the offering, buildings must fall under one of the following classifications:

Social and Assisted Housing, for the purposes of Enbridge Gas Low Income programming includes:

- Non-profit providers of social or assisted housing under a federal, provincial, or municipally funded program, and includes, without limitation, non-profit corporations governed by the Housing Services Act, 2011 (as amended, or any successor legislation);
- Public housing corporations owned by municipalities directly or through local housing corporations;
- Non-profit housing co-operatives as defined in the Co-operative Corporations Act;
- Non-profit housing corporations that manage or own residential (including multi-residential) buildings developed under the "Affordable Housing Program"; and
- Non-profit organizations, or municipal or provincial governments that manage or own residential (including multi-residential) supportive housing, shelters, and hostels.

OR

Privately owned multi-residential building that can demonstrate one of the following criteria:

- Privately owned multi-residential building owner or property manager must confirm, based on rent roll review, that at least 30% of the units are rented at less than 80% of the median market rent, as determined by the Canadian Mortgage and Housing Corporation (CMHC);

OR

- The building has participated in federal, provincial, or municipal affordable housing funding program in the last five years.

Incentive Structure

Technology	Customer Incentive	Service Provider Incentive (\$/unit)
<u>Direct-Install</u>		
Heat Reflector Panels	Free	N/A
<u>Energy Assessments</u>	Up to \$8,000 per building, an annual maximum limit of \$40,000 per housing providers	N/A
<u>Custom Incentives</u>		
All technologies (social subsector)	\$2.00 per annual m ³ of natural gas saved, up to a maximum of \$200,000 or 75% of incremental cost	N/A
All technologies (private subsector)	\$2.00 per annual m ³ of natural gas saved, up to a maximum of \$200,000 or 50% of incremental cost	
Limited-Time Offer (private subsector, all technologies)	\$2.50 per annual m ³ of natural gas saved, up to a maximum of \$200,000 or 75% of the incremental cost	N/A
<u>Fixed Incentives</u>		
Condensing Make-Up Air Units (constant speed, minimum 1,500 CFM to a maximum of 14,000 CFM per unit)	\$0.60/CFM	\$100
Condensing Make-Up Air Units (two speed, minimum 1,500 CFM to a maximum of 14,000 CFM per unit)	\$1.10/CFM	\$100
Condensing Make-Up Air Units (variable frequency drive (VFD), minimum 1,500 CFM to a maximum of 14,000 CFM per unit)	\$1.15/CFM	\$100
Condensing Storage Water Heaters (greater than 75 kBtu/hr)	\$0.80/annual m ³ of natural gas saved	\$100
Condensing Instantaneous (Tankless) Water Heaters (75 kBtu/hr or greater)	\$1.00/annual m ³ of natural gas saved	\$100
Energy Recovery Ventilators (no existing ERV or not required by Code, 55% to 64% sensible heat recovery effectiveness)	\$2.75/CFM	\$100
Energy Recovery Ventilators (no existing ERV or not required by Code, 65% to 74% sensible heat recovery effectiveness)	\$3.30/CFM	\$100
Energy Recovery Ventilators (no existing ERV or not required by Code, 75% to 84% sensible heat recovery effectiveness)	\$3.70/CFM	\$100
Energy Recovery Ventilators (no existing ERV or not required by Code, 85% or greater sensible heat recovery effectiveness)	\$4.00/CFM	\$100
Energy Recovery Ventilators (improved effectiveness, 65% to 74% sensible heat recovery effectiveness)	\$1.00/CFM	\$100
Energy Recovery Ventilators (improved effectiveness, 75% to 84% sensible heat recovery effectiveness)	\$1.25/CFM	\$100
Energy Recovery Ventilators (improved effectiveness, 85% or greater sensible heat recovery effectiveness)	\$1.50/CFM	\$100
Heat Recovery Ventilators (no existing HRV or not required by Code, 55% to 64% sensible heat recovery effectiveness)	\$2.15/CFM	\$100
Heat Recovery Ventilators (no existing HRV or not required by Code, 65% to 74% sensible heat recovery effectiveness)	\$2.50/CFM	\$100
Heat Recovery Ventilators (no existing HRV or not required by Code, 75% to 84% sensible heat recovery effectiveness)	\$2.90/CFM	\$100
Heat Recovery Ventilators (no existing HRV or not required by Code, 85% or greater sensible heat recovery effectiveness)	\$3.30/CFM	\$100
Heat Recovery Ventilators (improved effectiveness, 65% to 74% sensible heat recovery effectiveness)	\$0.75/CFM	\$100

Technology	Customer Incentive	Service Provider Incentive (\$/unit)
Heat Recovery Ventilators (Improved effectiveness, 75% to 84% sensible heat recovery effectiveness)	\$1.10/CFM	\$100
Heat Recovery Ventilators (Improved effectiveness, 85% or greater sensible heat recovery effectiveness)	\$1.50/CFM	\$100
In-suite Energy Recovery Ventilator (no existing HRV or not required by Code, 55% to 64% sensible heat recovery effectiveness)	\$175/unit	5% of the total customer incentive per building. One service provider incentive payment per building.
In-suite Energy Recovery Ventilator (no existing HRV or not required by Code, 65% to 74% sensible heat recovery effectiveness)	\$200/unit	5% of the total customer incentive per building. One service provider incentive payment per building.
In-suite Energy Recovery Ventilator (no existing HRV or not required by Code, 75% to 84% sensible heat recovery effectiveness)	\$225/unit	5% of the total customer incentive per building. One service provider incentive payment per building.
In-suite Energy Recovery Ventilator (no existing HRV or not required by Code, 85% or greater sensible heat recovery effectiveness)	\$250/unit	5% of the total customer incentive per building. One service provider incentive payment per building.
In-suite Energy Recovery Ventilators (improved effectiveness 65% to 74% sensible heat recovery effectiveness)	\$75/unit	5% of the total customer incentive per building. One service provider incentive payment per building.
In-suite Energy Recovery Ventilators (improved effectiveness 75% to 84% sensible heat recovery effectiveness)	\$125/unit	5% of the total customer incentive per building. One service provider incentive payment per building.
In-suite Energy Recovery Ventilators (improved effectiveness, 85% or greater sensible heat recovery effectiveness)	\$175/unit	5% of the total customer incentive per building. One service provider incentive payment per building.
In-suite Heat Recovery Ventilators (no existing HRV or not required by Code, 55% to 64% sensible heat recovery effectiveness)	\$150/unit	5% of the total customer incentive per building. One service provider incentive payment per building.
In-suite Heat Recovery Ventilators (no existing HRV or not required by Code, 65% to 74% sensible heat recovery effectiveness)	\$175/unit	5% of the total customer incentive per building. One service provider incentive payment per building.
In-suite Heat Recovery Ventilators (no existing HRV or not required by Code, 75% to 84% sensible heat recovery effectiveness)	\$200/unit	5% of the total customer incentive per building. One service provider incentive payment per building.
In-suite Heat Recovery Ventilators (no existing HRV or not required by Code, 85% or greater sensible heat recovery effectiveness)	\$225/unit	5% of the total customer incentive per building. One service provider incentive payment per building.
In-suite Heat Recovery Ventilators (improved effectiveness, 65% to 74% sensible heat recovery effectiveness)	\$40/unit	5% of the total customer incentive per building. One service provider incentive payment per building.
In-suite Heat Recovery Ventilators (Improved effectiveness, 75% to 84% sensible heat recovery effectiveness)	\$90/unit	5% of the total customer incentive per building. One service provider incentive payment per building.
In-suite Heat Recovery Ventilators (Improved effectiveness, 85% or greater sensible heat recovery effectiveness)	\$150/unit	5% of the total customer incentive per building. One service provider incentive payment per building.

C6 Commercial Custom Offering

Eligibility Criteria

To be eligible for the offering, a participant must be an Enbridge Gas commercial customer.

Incentive Structure

In addition to technical expertise, the following financial incentives are available to participants.

ITEM	COMMERCIAL CUSTOMERS												
New Equipment Installation, Equipment Retrofit, and Process Optimization Projects	For commercial, non-institutional customers: \$0.25/m³ for estimated annual natural gas savings, up to 50% of the incremental project cost, to a maximum of \$100,000 per project. Institutional customers (hospitals, universities, colleges, military bases, district energy providers) are subject to a tiered incentive structure, as follows: \$0.25/m³ for estimated annual natural gas savings for the first 400,000 m³ and \$0.10/m³ for estimated annual natural gas savings above 400,000 m³, up to 50% of the incremental project cost, to a maximum of \$500,000 per project.												
Energy Assessments (HVAC audits, controls audits, thermal surveys, facility air balances, benchmarking activities, equipment upgrade analyses, Meters)	50% of eligible audit costs, to a maximum defined by the building's consumption in the previous calendar year: <table> <tr> <th>Previous Calendar Year Natural Gas Consumption at the Project Site (m³)</th><th>Maximum incentive for the Project Site</th></tr> <tr> <td>≥100,000 and <300,000</td><td>\$1,500</td></tr> <tr> <td>≥300,000 and <1,500,000</td><td>\$2,500</td></tr> <tr> <td>≥1,500,000 and <3,000,000</td><td>\$6,000</td></tr> <tr> <td>≥3,000,000</td><td>\$10,000</td></tr> </table>	Previous Calendar Year Natural Gas Consumption at the Project Site (m ³)	Maximum incentive for the Project Site	≥100,000 and <300,000	\$1,500	≥300,000 and <1,500,000	\$2,500	≥1,500,000 and <3,000,000	\$6,000	≥3,000,000	\$10,000		
Previous Calendar Year Natural Gas Consumption at the Project Site (m ³)	Maximum incentive for the Project Site												
≥100,000 and <300,000	\$1,500												
≥300,000 and <1,500,000	\$2,500												
≥1,500,000 and <3,000,000	\$6,000												
≥3,000,000	\$10,000												
Boiler Limited-Time Offer	\$0.50/m³ for estimated annual natural gas savings for condensing boiler projects where customers commit with an Energy Solutions Advisor by June 30th, 2024, to commission a boiler by October 31st, 2024. \$0.30/m³ for estimated annual natural gas savings for high-efficiency boiler projects where customers commit with an Energy Solutions Advisor by June 30th, 2024, to commission a boiler by October 31st, 2024. Incentive coverage up to 75% of the incremental project cost, to a maximum of \$100,000 per project. Business Partner SPIFF of \$100 per boiler replaced, up to \$1,000 per project.												
Controls Limited-Time Offer	\$0.50/m³ for boiler controls, building automation systems (BAS), variable frequency drives (VFDs), or variable air volume systems (VAVs) Incentive coverage up to 75% of the incremental project cost, to a maximum of \$100,000 per project. Business Partner SPIFF of \$200 per project.												
Hybrid Rooftop Unit (RTU) Limited-Time Offer	The following dollar-per-unit structure applied for hybrid RTU projects where customers commit with an Energy Solutions Advisor by March 31st, 2024, to commission a hybrid RTU by October 31st, 2024: <table> <tr> <th>Cooling capacity</th><th>Customer incentive (\$/unit)</th></tr> <tr> <td>2 ton</td><td>\$1,000</td></tr> <tr> <td>3 ton</td><td>\$2,000</td></tr> <tr> <td>4 – 5 tons</td><td>\$2,500</td></tr> <tr> <td>6 – 15 tons</td><td>\$3,800</td></tr> <tr> <td>16 tons or over</td><td>\$10,000</td></tr> </table>	Cooling capacity	Customer incentive (\$/unit)	2 ton	\$1,000	3 ton	\$2,000	4 – 5 tons	\$2,500	6 – 15 tons	\$3,800	16 tons or over	\$10,000
Cooling capacity	Customer incentive (\$/unit)												
2 ton	\$1,000												
3 ton	\$2,000												
4 – 5 tons	\$2,500												
6 – 15 tons	\$3,800												
16 tons or over	\$10,000												

ITEM	COMMERCIAL CUSTOMERS
	Incentive shall not exceed 100% of the incremental project cost. Maximum customer incentive is \$200,000 across all buildings with accounts under the customer's name. Business Partner SPIFF of \$200 per hybrid RTU replaced, up to \$1,000 per project.
Steam System Limited-Time Offer	This LTO was offered to Institutional customers (hospitals, universities, colleges, military bases, district energy providers), who typically have larger steam consumption. The offer was launched in August 1st, 2024 with an early bird incentive for implementation by October 31st, 2024 and another limited-time incentive for implementation by end of March 31st, 2025. Early bird incentive: when a 2024 incentivized steam trap or steam system insulation audit is converted to a savings project, with commitment and implementation between August 1st, 2024 and October 31st, 2024: ○ Audit top-up to a maximum of \$5,000 per premise, to cover up to 100% of audit costs alongside the standard energy assessment incentive. ○ \$0.50/m³ saved for steam system insulation (trap, valve, or pipe), up to 75% of incremental cost, to a maximum of \$100,000 per project. Limited-time incentive: when a 2024 incentivized steam trap or steam system insulation audit is converted to a savings project, with commitment between August 1st, 2024 and December 31st, 2024 and implementation by March 31st, 2025: ○ Audit top-up to a maximum of \$2,500 per premise, to cover up to 75% of audit costs alongside the standard energy assessment incentive ○ \$0.40/m³ saved for steam system insulation (trap, valve, or pipe), up to 50% of incremental cost, to a maximum of \$100,000 per project

C7 Prescriptive Downstream Offering

Eligibility Criteria

- To be eligible for the offering, a participant must be an Enbridge Gas commercial or industrial customer.
- Qualifying products and customers must meet the requirements as outlined in TRM Version 8.0.

Incentive Structure

Technology	Customer Incentive	Service Provider Incentive	Distributor Incentive
Air Curtain (pedestrian doors, no vestibule, 3'x7') *	\$300	\$100	\$50
Air Curtain (pedestrian doors, no vestibule, 6'x7') *	\$400	\$100	\$50
Air Curtain (pedestrian doors, no vestibule, 6'x8') *	\$500	\$100	\$50
Air Curtain (pedestrian doors, with vestibule, 3'x7') *	\$200	\$100	\$50
Air Curtain (pedestrian doors, with vestibule, 6'x7') *	\$300	\$100	\$50
Air Curtain (pedestrian doors, with vestibule, 6'x8') *	\$400	\$100	\$50
Air Curtain (shipping doors, dock-in, 8'x8', 8'x9', 8'x10')	\$2,750	\$100	\$50
Air Curtain (shipping doors, dock-in and drive-in, 10'x10')	\$3,250	\$100	\$50
Air Curtain (shipping doors, drive-in, 12'x12')	\$5,000	\$100	\$50
Air Curtain (shipping doors, drive-in, 14'x14')	\$7,500	\$100	\$50
Air Curtain (shipping doors, drive-in, 16'x16', 18'x18', 20'x20')	\$8,750	\$100	\$50
Condensing Make-up Air (Constant speed, Minimum 1,500 CFM to maximum 14,000 CFM per unit)	\$0.50/CFM	\$100	\$50
Condensing Make-up Air (2- Speed or VFD, Minimum 1,500 CFM to maximum 14,000 CFM per unit)	\$1.00/CFM	\$100	\$50
Demand Control Kitchen Ventilation (Retrofit, up to 5,000 CFM)	\$2,900	\$100	\$50
Demand Control Kitchen Ventilation (Retrofit, 5,001 to 10,000 CFM)	\$6,200	\$100	\$50
Demand Control Kitchen Ventilation (Retrofit, 10,001 to 15,000 CFM)	\$9,000	\$100	\$50
Demand Control Kitchen Ventilation (New construction, up to 5,000 CFM)	\$1,200	\$100	\$50
Demand Control Kitchen Ventilation (New construction, 5,001 to 10,000 CFM)	\$3,000	\$100	\$50
Demand Control Kitchen Ventilation (New construction, 10,001 to 15,000 CFM)	\$4,400	\$100	\$50
Demand Control Ventilation (with CO ² sensor)	\$500	\$50	\$50
De-stratification Fan (20ft. or greater)	\$1,000	\$100	\$50
Dock Door Seal (compression seal, 8'x8', 8'x9', 8'x10')	\$650	\$100	\$50
Dock Door Seal (shelter seal, 10'x10')	\$1,650	\$100	\$50
Energy Recovery Ventilator (ERV) (no existing ERV and not required by code, 55% to 64% sensible heat recovery effectiveness)	\$1.00/CFM, minimum \$200 to a maximum of \$8,000 per unit	\$100	\$50
Energy Recovery Ventilator (ERV) (no existing ERV and not required by code, 65% to 74% sensible heat recovery effectiveness)	\$1.25/CFM, minimum \$200 to a maximum of \$8,000 per unit	\$100	\$50
Energy Recovery Ventilator (ERV) (no existing ERV and not required by code, 75% to 84% sensible heat recovery effectiveness)	\$1.50/CFM minimum \$200 to a maximum of \$8,000 per unit	\$100	\$50

Technology	Customer Incentive	Service Provider Incentive	Distributor Incentive
Energy Recovery Ventilator (ERV) (no existing ERV and not required by code, 85% or greater sensible heat recovery effectiveness)	\$1.75/CFM minimum \$200 to a maximum of \$8,000 per unit	\$100	\$50
Energy Recovery Ventilator (ERV) In-Suite (no existing ERV and not required by code, 55% or greater sensible heat recovery effectiveness)	\$150 per unit, maximum \$50,000 per building	5% customer incentive	N/A
Energy Recovery Ventilator (ERV) (improved effectiveness, 65% to 74% sensible heat recovery effectiveness)	\$0.50/CFM minimum \$200 to a maximum of \$8,000 per unit	\$100	\$50
Energy Recovery Ventilator (ERV) (improved effectiveness, 75% to 84% sensible heat recovery effectiveness)	\$0.75/CFM minimum \$200 to a maximum of \$8,000 per unit	\$100	\$50
Energy Recovery Ventilator (ERV) (improved effectiveness, 85% or greater sensible heat recovery effectiveness)	\$1.15/CFM minimum \$200 to a maximum of \$8,000 per unit	\$100	\$50
Energy Recovery Ventilator (ERV) In-Suite (improved effectiveness, 65% to 74% sensible heat recovery effectiveness)	\$50 per unit, maximum \$50,000 per building	5% customer incentive	N/A
Energy Recovery Ventilator (ERV) In-Suite (improved effectiveness, 75% to 84% sensible heat recovery effectiveness)	\$100 per unit, maximum \$50,000 per building	5% customer incentive	N/A
Energy Recovery Ventilator (ERV) In-Suite (improved effectiveness, 85% or greater sensible heat recovery effectiveness)	\$150 per unit, maximum \$50,000 per building	5% customer incentive	N/A
Heat Recovery Ventilator (HRV) (no existing HRV and not required by code, 55% to 64% sensible heat recovery effectiveness)	\$0.50/CFM, minimum \$200 to a maximum of \$5,000 per unit	\$100	\$50
Heat Recovery Ventilator (HRV) (no existing HRV and not required by code, 65% to 74% sensible heat recovery effectiveness)	\$0.75/CFM, minimum \$200 to a maximum of \$5,000 per unit	\$100	\$50
Heat Recovery Ventilator (HRV) (no existing HRV and not required by code, 75% to 84% sensible heat recovery effectiveness)	\$1.00/CFM, minimum \$200 to a maximum of \$5,000 per unit	\$100	\$50
Heat Recovery Ventilator (HRV) (no existing HRV and not required by code, 85% or greater sensible heat recovery effectiveness)	\$1.25/CFM, minimum \$200 to a maximum of \$5,000 per unit	\$100	\$50
Heat Recovery Ventilator (HRV) In-Suite (no existing HRV and not required by code, 55% or greater sensible heat recovery effectiveness)	\$75 per unit, maximum \$25,000 per building	5% customer incentive	N/A
Heat Recovery Ventilator (HRV) (improved effectiveness, 65% to 74% sensible heat recovery effectiveness)	\$0.25/CFM, minimum \$200 to a maximum of \$5,000 per unit	\$100	\$50

Technology	Customer Incentive	Service Provider Incentive	Distributor Incentive
Heat Recovery Ventilator (HRV) (improved effectiveness, 75% to 84% sensible heat recovery effectiveness)	\$0.50/CFM, minimum \$200 to a maximum of \$5,000 per unit	\$100	\$50
Heat Recovery Ventilator (HRV) (improved effectiveness, 85% or greater sensible heat recovery effectiveness)	\$0.75/CFM, minimum \$200 to a maximum of \$5,000 per unit	\$100	\$50
Heat Recovery Ventilator (HRV) In-Suite (improved effectiveness, 65% to 74% sensible heat recovery effectiveness)	\$25 per unit, maximum \$25,000 per building	5% customer incentive	N/A
Heat Recovery Ventilator (HRV) In-Suite (improved effectiveness, 75% to 84% sensible heat recovery effectiveness)	\$50 per unit, maximum \$25,000 per building	5% customer incentive	N/A
Heat Recovery Ventilator (HRV) In-Suite (improved effectiveness, 85% or greater sensible heat recovery effectiveness)	\$75 per unit, maximum \$25,000 per building	5% customer incentive	N/A
Ozone Laundry (based on weight of laundry processed annually. Maximum \$15,000/system)	\$0.04/lb.	\$100	\$50

* Enbridge Gas provided twice the Air Curtain incentive amount for double-door pedestrian doors.

DCKV Limited-Time Top Up Bonus Offer

This one-time bonus is additional to the regular incentive rate and is applicable for the total number of eligible equipment purchased under the same customer (parent account) for MUSH and National Account customers.

Technology	Tier A Bonus Offer \$/Unit (2-4 Units)*	Tier B Bonus Offer \$/Unit (5 Units and Above)*
DCKV – Retrofit/TNR – Up to 5,000 CFM	\$1,000	\$3,000
DCKV – Retrofit/TNR – Up to 5,001 to 10,000 CFM		
DCKV – Retrofit/TNR – 10,001 to 15,000 CFM		
DCKV – New Construction – Up to 5,000 CFM	\$500	\$1,500
DCKV – New Construction – Up to 5,001 to 10,000 CFM		
DCKV – New Construction – 10,001 to 15,000 CFM		

* The total numbers of units for **DCKV – Retrofit/TNR – Up to 5,000 CFM** and **DCKV – New Construction – Up to 5,000 CFM** cannot exceed 2 units in the measure mix

Ozone Laundry Limited-Time Offer

This LTO provides customers who purchase and install the eligible ozone laundry equipment an increased incentive of \$0.05/lb up to a maximum of \$17,000 per system, with incentives coverage not exceeding 75% of the total project cost.

Destratification Fan Limited-Time Offer

Customers who purchase and install the eligible equipment are eligible for an increased incentive at \$4,000 per unit, with incentives coverage not exceeding 75% of the total project cost as part of this LTO.

Business Partner Multi-Unit Year End Bonus Offer

A one-time annual bonus is made available to the business partners for the total number of eligible equipment installed from January 1st to December 31st. The Business Partner Bonus Offer is not applicable to MURB ERV/HRV In-Suite Installations and custom boiler projects.

Annual Total Number of Unit per Business Partner	One-Time Bonus Offer
50-99	\$1,500
100-199	\$3,750
>200	\$7,500

C8 Direct Install Offering

Eligibility Criteria

- To be eligible for the offering, a participant must be an Enbridge Gas commercial or industrial customer with no DSM participation in the last three program years.
- Qualifying products and customers must meet the requirements outlined in TRM Version 8.0.

Incentive Structure

Shipping Door Stream

Eligible customers are provided with a shipping door assessment, project recommendation, and the installation of shipping and receiving door equipment (e.g., air curtains and dock door seals), with up to 90% of total project cost covered for air curtains and 100% of the total project cost covered for dock door seals.

Air Curtains	
Size	Maximum incentive
8'x8', 8'x9'	\$5,500/unit
8'x10'	\$5,700/unit
10'x10'	\$6,700/unit
12'x12'	\$9,000/unit
14'x14'	\$10,500/unit
16'x16'	\$12,000/unit
18'x18'	\$14,000/unit
20'x20'	\$15,000/unit
Dock Door Seals	
Size	Maximum incentive
8'x8', 8'x9', 8'x10'	\$2,000/unit
10'x10'	\$2,600/unit

Demand Control Kitchen Ventilation Stream

Eligible customers are provided with a site assessment of the customer's commercial kitchen and the installation of a demand control kitchen ventilation system that has temperature and/or optic sensors.

Between the Enbridge Gas and Save on Energy incentive, up to 90% of the total project cost is covered on standard installations.

Demand Control Kitchen Ventilation		
Size	Maximum Incentive	LTO incentive
0 – 5,000 CFM	\$6,000/unit	\$14,500/unit
5,001 – 10,000 CFM	\$11,000/unit	\$14,500/unit
10,001 – 15,000 CFM	\$17,500/unit	\$17,500/unit

C9 Prescriptive Midstream Offering

Eligibility Criteria

- To be eligible for the offering, equipment must be installed at an Enbridge Gas commercial or industrial customer premise.
- Qualifying products and customers must meet requirements as outlined in the TRM Version 8.0.

Incentive Structure

Technology	Distributor Incentive (\$/unit)
HVAC	
Condensing Tankless Water Heaters	\$700
Condensing Storage Water Heater; capacity >75kBtu/hr and ≤160kBtu/hr.	\$150
Condensing Storage Water Heater; capacity >160kBtu/hr and ≤250kBtu/hr.	\$550
Condensing Storage Water Heater; capacity >250kBtu/hr	\$700
Condensing Unit Heaters	\$1000
Foodservice*	
ENERGY STAR Fryers	\$1,000
ENERGY STAR Steam Cookers	\$1,000
High-Efficiency Under-Fired Broilers	\$750
ENERGY STAR Convection Oven	\$750
ENERGY STAR Rack Ovens single	\$750
ENERGY STAR Rack Ovens double	\$900
ENERGY STAR Combination Oven	\$1,250
ENERGY STAR Griddles	\$1,250
ENERGY STAR Stationary Single Tank Door Dishwasher (both high and low temperature models)	\$600
High-Efficiency Conveyor Broiler <22"	\$1,250
High-Efficiency Conveyor Broiler 22"-26"	\$1,500
High-Efficiency Conveyor Broiler >26"	\$1,750
High-Efficiency Conveyor Oven <1,520in ²	\$250
High-Efficiency Conveyor Oven >1,520in ²	\$550

* There is a mandatory 40% passthrough to the end user for the Foodservice incentives listed.

Foodservice SPIFF for Sales Representatives

For participating distributors that opted into this approach, identified sales representatives were awarded \$50 per eligible unit sold from August to December 2024.

C10 Industrial Custom Offering

Eligibility Criteria

To be eligible for the offering, a participant must be an Enbridge Gas industrial customer. Large Volume rate classes T2 and R100 in Union rate zones are ineligible for this offering. Industrial customers are non-residential customers involved in the production and/or enhancement of mercantile goods and/or the cultivation of plants and/or livestock.

Incentive Structure

In addition to technical expertise to support the identification of energy efficiency projects, financial incentives to cover up to 50% of the costs associated with third party audits, studies, and metering are available to help customers identify and quantify savings opportunities and justify project implementation, as follows:

Annual Natural Gas Consumption	Maximum Incentive
Less than 100k m ³	Not Eligible
100,000 m ³ to 299,999 m ³	\$1,500
300,000 m ³ to 1,499,999 m ³	\$2,500
1,500,000 m ³ to 2,999,999 m ³	\$6,000
3,000,000 m ³ to 9,999,999 m ³	\$10,000
10,000,000 m ³ or greater	\$20,000

Implementation incentives are calculated on a project basis and are based on estimated natural gas savings associated with the implementation of efficiency measures. The overall incentive is capped at \$250,000 per project and should not exceed 50% of the incremental project cost. The incentive is based on the following incentive structure:

Gross Natural Gas Savings	Manufacturing Sector	Agriculture Sector
Up to 50,000 m ³	\$0.30/m ³	\$0.10/m ³
50,001 m ³ or greater	\$0.10/m ³	

Limited-Time Offer

Agricultural customers are eligible to receive up to 75% of their incremental project costs, to a maximum of \$250,000 per project based on the following elevated incentive structure:

- Twice the standard incentive rate (\$0.20/m³) for projects submitted before July 1st, 2024.
- One and a half times the standard incentive rate (\$0.15/m³) for projects submitted before August 19th, 2024.

C11 Large Volume Direct Access Offering

Eligibility Criteria

To be eligible for the offering, participants must be an Enbridge Gas customer in Rate T2 and Rate 100 in the Union rate zones as of January 1st in a given program year, excluding gas-fired-generators.

Incentive Structure

Item	Incentive
New Equipment Installation, Equipment Retrofit, Process Optimization Projects and Operational Improvement	Direct Access Funded: \$0.10 per annual m ³ saved, up to \$200,000* Aggregate Pool Funded: \$0.05 per annual m ³ saved, up to \$200,000*
Engineering Assessments and Meters	50% of the cost, up to \$20,000
Customer Education	Provided, or funded, by Enbridge Gas

* Incentive cannot exceed 50% of project cost.

C12 Whole Building Pay-for-Performance Offering

Eligibility Criteria

- Participant must be an Enbridge Gas customer.
- Participating building cannot participate in other commercial offerings simultaneously during the duration of the offering.
- The participating building must have an existing Enbridge Gas meter that is compatible with pulse interval metering equipment or already has an Automatic Meter Reader ("AMR") that allows Enbridge Gas or its DA direct access to the building's interval data.
- The building must have been operational without having undergone any capital retrofit upgrades between the beginning of the baseline period up to the start of the P4P Period.

Incentive Structure

- Participants can earn annual performance incentives of \$0.30/m³. Performance incentives will be based on M&V of incremental gas savings at the meter relative to the baseline model and awarded at the end of each Pay-for-Performance Period on an annual basis.
- Final performance incentives are available at \$0.10/m³ for incremental gas savings beyond 20% relative to the baseline and will be awarded at the end of third Performance Period.
- The maximum performance incentive (annual performance incentive + final performance incentive) per participant cannot exceed \$20,000.
- Bonus incentives of \$0.20/m³ will be awarded at the end of the offer, if the participant stays enrolled throughout the offer duration and has achieved the 20% performance target.

Metric

- Net annual natural gas savings, measured in m³.
- Number of participants enrolled in offering.

C13 Residential Savings by Design Offering

ESNH Stream

Eligibility Criteria

Municipality Eligibility:

- Enbridge Gas maintains a list of eligible municipalities based on the three-year performance criteria and updates the list before each program year. Municipalities in the Enbridge Gas franchise area, within which ESNH builds have been below 15% over the preceding three-years are eligible for this stream.
- Municipalities that have adopted a Green Development Standard mandating ESNH or similar performance standards for new residential construction will be removed from the eligibility list.

Builder Eligibility:

- Builders eligible to participate are those constructing new residential homes in eligible municipalities.

Incentive Structure

- An incentive of \$1,650 per eligible home is available for up to 50 homes per year per builder.
 - Eligible homes include those labeled to ESNH version 17 or modeled equivalent (20% better than OBC) built in eligible municipalities. Homes are not required to connect to the natural gas system.

Metric

- The number of homes built by participating builders in eligible municipalities to the ESNH or modelled equivalent level of energy efficiency (at least 20% better than 2017 OBC).
- Provision of an incentive to the participating builder and counting the constructed home towards the ESNH homes-built metric requires label certification and/or energy modelling results to confirm that energy efficiency performance levels reach or exceed the ESNH standard or modelled equivalent (minimum 20% better than code).

NZER Stream

Eligibility Criteria

- Builders must not have previously participated in the NZER discovery home stream.
- The discovery home must be in design phase or earlier in the development process.
- Builders are not required to connect to the natural gas system to participate in the offering.

Incentive Structure

- A builder incentive of \$15,000 is available once the home has been certified to the CHBA NZER standard.

Metric

- The number of homes built by participating builders to the NZER standard as defined by the CHBA Net Zero Labelling program.

- Provision of an incentive to the participating builder and counting the constructed home towards the NZER homes-built metric requires label certification and/or energy modelling results that confirm energy efficiency performance in line with the CHBA Net Zero Labelling program.

C14 Commercial Savings by Design Offering

Eligibility Criteria

- Commercial or multi-residential buildings covered under the OBC Part 3, Part 10 or Part 11.
- A minimum threshold of 25,000 ft² contemplated per building as per application form.
- Project must be within Enbridge Gas's franchise area.
- Project must be in the design phase or earlier.

Incentive Structure

To help offset the incremental professional consulting fees associated with participating in the IDP, subject to satisfying all offering requirements, the participant may be eligible to receive a Technical Assistance Incentive of \$4,000. CSBD participants will be guided through a series of free activities to support the adoption of higher efficient designs, including:

Offering Activities	Description
Visioning Session	Energy modelling will be conducted based on the existing project design information to create a baseline energy model for use during the IDP workshop.
IDP Workshop	A half-to-full day workshop wherein the team will strategize with sustainable building design experts to maximize the project's energy and environmental performance as demonstrated through preliminary baseline and live modelling exercises to compare the various design options.
Final Report	A final report that summarizes the findings of the workshop and associated energy modelling is provided to the design teams.
Verification of design for permitting	Final designs submitted for permitting are assessed by the delivery agent to determine whether the final design achieved the IDP workshop efficiency performance target.

Metric

The number of participants who complete the IDP workshop and receive the Commercial Savings by Design report.

C15 Affordable Housing Savings by Design Offering

Eligibility Criteria

- Project must be a new construction housing and multi-residential project or major renovation/change of use (OBC Part 3, Part 9, Part 10, Part 11).

- Project site must be located within Enbridge Gas's franchise area.
- Project must be in design development stage or the pre-development stage.
- Must be planning to complete construction within five years of signing the application form for multi-family projects, or within three years of signing the application form for single-family projects.
- Participants are not required to connect to the natural gas system to participate in the offering.
- Projects must qualify as Affordable Housing, including social housing providers, non-profit housing corporations and cooperatives, public housing corporations, supportive or transitional housing, shelters, hostels, or privately-owned market rate housing where at least 30% of units will be affordable (as defined by CMHC).

Incentive Structure

- Enbridge Gas bears the cost of the Integrated Design Process workshop. In addition, Enbridge Gas provides a Technical Assistance Incentive of \$7,500 to the affordable housing provider to help offset the cost of professional consulting fees incurred by the housing provider to bring their design team to the workshop.
- For both Part 3 and Part 9 developments, participants are eligible for an energy performance incentive of \$1,000 per affordable unit, up to a maximum of \$120,000 per project for meeting the offering's energy performance target (including any applicable stretch target). This incentive is provided to help offset the incremental cost of investing in higher energy efficiency measures and to motivate housing providers to follow through on implementing the design options discussed in the IDP workshop. For this reason, 50% of the incentive is payable at the time of building permit application, based on the energy performance of the design submitted for permit, and 50% is available upon completion of construction, based on the energy performance of the as-built model.

Metric

- Number of participants that complete the IDP workshop and receive the Affordable Housing SBD report.

C16 Commercial Air Tightness Testing Offering

The Commercial Air Tightness Testing offering is delivered through two streams: Program Participants and Qualified Agents.

Program Participants

Eligibility Criteria

- Commercial or multi-residential projects to be built subject to OBC Part 3, Part 10 or Part 11 building types.
- Project enclosure must be in a state to perform air tightness testing by Q3 of 2024.
- Minimum threshold of 25,000 ft² contemplated per project as per application form.

Incentive Structure

- Air Tightness Testing Incentive of \$0.50 per ft² to a maximum of \$30,000 per project, up to 80% of commissioning and reporting.
- Implementation Incentive to cover up to 50% of the cost to a maximum of \$15,000 for implementation initiatives to improve building envelope performance.

Metric

- The number of participants who implement air tightness testing and have submitted a copy of their air tightness testing report.

Qualified Agents

Eligibility Criteria

- The training component of the offering is designed to support upskilling practitioners within the building envelope or building commissioning fields, and with an educational background in subjects including building enclosure, energy modelling, architecture, building sustainability, structural engineering, energy auditing, and general contracting.

Incentive Structure

- Free educational air tightness testing virtual and in-person workshops delivered by contracted third-party facilitator.

Metric

- The number of qualified air tightness testing practitioners recruited and trained through the offering.
 - To be considered a Qualified Agent participant, individuals must attend the workshop and complete the knowledge check testing.

Appendix D: Abbreviations and Acronyms List

First Letter	Abbreviation/Acronym	Full Name
A	AFUE	Annual Fuel Utilization Efficiency
	Amendment 15	NRCan's Regulations Amending the Energy Efficiency Regulations, 2016 (Amendment 15): SOR.2019-164
	CFM	Cubic feet per minute
	C/I	Commercial/Industrial
	CSBD	Commercial Savings by Design
D	DA	Delivery Agent
	DCKV	Demand Control Kitchen Ventilation
	DCV	Demand Control Ventilation
	DSM	Demand Side Management
	DSMVA	Demand Side Management Variance Account
E	EAC	Evaluation Advisory Committee
	EC	Evaluation Contractor
	EEP	Energy Efficiency Plan
	EMIS	Energy Management Information System
	EM&V	Evaluation, Measurement and Verification
	ERV	Energy Recovery Ventilation
	ESA	Energy Solutions Advisors
H	HER	Home Efficiency Rebate
	HRV	Heat Recovery Ventilation
	HVAC	Heating, Ventilation and Air Conditioning
	HVLS	High Volume Low Speed
I	IDP	Integrated Design Process
	IESO	Independent Electricity System Operator
L	LICO	Low-Income Cut-Offs
	LRAM	Lost Revenue Adjustment Mechanism
	LTO	Limited-Time Offer
M	MURB	Multi-Unit Residential Building
	MUSH	Municipalities, Universities, Schools and Hospitals
N	NECB	National Energy Code of Canada for Buildings
	NRCan	Natural Resources Canada
	NTG	Net-to-Gross
O	OBC	Ontario Building Code
	OEB	Ontario Energy Board
R	REA	Registered Energy Advisor
S	SBC	Sustainable Building Canada
	SEM	Strategic Energy Management
	SO	Service Organization
T	TRC-Plus	Total Resource Cost Plus
	TRM	Technical Resource Manual

Appendix E: Smart Home (Adaptive Thermostat) Process Evaluation

RESIDENTIAL ADAPTIVE THERMOSTAT REBATE OFFER PROCESS EVALUATION

FINAL REPORT

PREPARED BY:
SEELINE GROUP

PREPARED FOR:
ENBRIDGE GAS INC.

06 JANUARY 2025

SeeLine
Group Ltd



WITH
AND



Contents

Executive Summary	1
1.0 Introduction.....	3
2.0 Methodology.....	4
2.1 Discovery and Supplemental Research	4
2.2 Structured Interviews.....	4
2.3 Sample Protocol	4
2.4 Survey Design, Test, and Field	5
3.0 Outcomes & Findings	7
3.1 Discovery & Supplemental Research	7
3.3 Structured Interviews.....	10
3.4 Sample Protocol	16
3.5 Participant Survey Results	17
4.0 Conclusion.....	46
Appendix A: Sample Protocol & Confidence Intervals	47
Appendix B: Participant Survey	60

Executive Summary

This report documents a process evaluation study of Enbridge Gas Inc.'s ("Enbridge's") Residential Adaptive Thermostat (Adaptive T-stat) Offer. Participants in the Adaptive T-Stat Offer can choose from five different manufacturer smart thermostats: ecobee, Google Nest, Honeywell Home, Copland Sensi, and Wyze. While five manufacturers' products are available through the offer, ecobee is the only manufacturer that provides follow-on support in the form of tracking and reporting Wi-Fi connection "ping" rates, and the ecobee ping rates are used by Enbridge to inform proxy performance adjustment factors for all five of the manufactured smart thermostats included in the Adaptive T-Stat Offer. In program years 2021 and 2022, the adjustment factor used by Enbridge ranged from 82.52% and 86.71%; meaning the associated program performance excluded 13.29% to 17.48% of participant savings from the year-end performance reporting submitted to the Ontario Energy Board ("OEB").

In support of Enbridge's continuous improvement efforts, the objective of this study was to gain insights into program and participant attributes that affect the adjustment factors for program years 2021 and 2022. The study methodology involved mapping out the program offer components through a review of relevant documentation, conducting structured interviews with various representatives that participate in managing aspects associated with the offer, and deploying a telephone survey to past participants. The survey provided a mechanism to explore factors that influenced customers' motivation, rationale, barriers, and other influential factors such as familiarity with technology and perception of data privacy, associated with their decisions and experience with the Residential Adaptive T-Stat offer.

Given the focus of the sample was on past program participants who purchased their device online from ecobee.com, and for whom no Wi-Fi connection ping (i.e., "no-ping participant") was registered, the survey was deployed to a random sample of 270 "no ping" participants from program years 2021 and 2022. In addition, 30 "successful ping" participants were randomly sampled as a control group. The sample segmented the no-ping participants into two groups: 151 members of the sample reside in urban settings, while 119 reside in rural areas to explore the hypothesis that rural and remote areas may encounter high-speed internet connection barriers. Overall, 76 past participants completed the telephone survey, including 7 participants from the successful ping control group, 32 rural no-ping participants, and 37 no-ping urban participants, which produced a **±9% precision rate** at the **90% confidence** interval.

Although the telephone survey yielded 76 completed surveys, which represents over 25% of the customers called, it is worth noting that the survey was well received; 67% of customers who answered the phone took the time to complete the survey. Noteworthy highlights from the survey results include:

- 89% of respondents indicated the ecobee device is installed in their residence, which is comprised of the following results for each sample segment:
 - 100% successful ping participants
 - 94% urban no-ping participants
 - 80% rural no-ping participants
- The level of difficulty associated with installing the device had a distribution skewed towards ease of installation, with 47% indicating it was easy or extremely easy to install

- 95% of respondents indicated the device is connected to Wi-Fi
 - 100% successful ping participants
 - 94% no-ping urban
 - 96% no-ping rural
- 82% of respondents found applying for the discount through the Enbridge Gas portal to be easy or extremely easy
- Respondents rated the following as important motivators for the decision to purchase the ecobee device (per cent response rates of either 4/5 “important, or 5/5 “extremely important are included in parentheses):
 - Ability to control thermostat remotely (89%)
 - Reduce household energy use and costs (75%)
 - Advanced scheduling options (71%)
 - Interest in having new technology (70%)
 - Reducing GHG emissions (62%)
 - Access to detailed energy use reports/data (47%)
 - Connecting device to other smart home devices (44%)

With 87.5% of no-ping respondents indicating the ecobee device is installed, and 95% of those indicating the device is connected to Wi-Fi, it appears the ecobee ping-rates may be understating the overall performance of the offering. Although there is some variance between urban versus rural responses that could infer the hypothesis that rural customers may experience greater barriers to connecting their device to Wi-Fi, the variance does not appear to be statistically significant. For example, 100% of no-ping urban reported they did not encounter any issues connecting their device to Wi-Fi compared with 96% of no-ping rural respondents.

Recommendations

Overall, the Adaptive T-Stat Offer appears to be functioning well, and the survey results indicate the user experience is positive. As such, there are no substantial recommendations to alter the program design. The following recommendations are offered for Enbridge’s consideration to explore as potential opportunities to improve the performance associated with the adjustment factors and overall participant experience with the Offer:

1. Consider conducting a study to compare the ecobee ping-rates with a traditional telephone verification survey of a sample of participants installing devices from all five of the manufacturers included in the Adaptive T-Stat Offer to determine the most accurate approach to validate program performance.
2. Consider providing additional pre-purchase installation information on the application portal to help customers understand what is required to replace their current t-stat to avoid customer frustration and reduce device return rates.
3. Consider including an overall compatibility function or list to help ensure customers are selecting an adaptive thermostat that will work with their home heating system.
4. Consider emphasizing the need for the “high-speed internet access” eligibility criterion up-front on the application portal, rather than in the Terms and Conditions, which may be overlooked.

This evaluation highlights both the successes and opportunities within Enbridge’s Residential Adaptive T-Stat Offer. Studying verification options, supporting participants with tailored information, and enhancing program accessibility will help ensure greater equity and effectiveness. The recommendations provide considerations and enhancements to maximize impact and participant satisfaction.

1.0 Introduction

Enbridge Gas Inc. (Enbridge) has been delivering Demand-Side Management (DSM) programs across the province of Ontario since 1995. Regulated by the Ontario Energy Board and with transparent intervenor evaluation governance processes, the DSM programs are intended to help reduce Enbridge customers' natural gas consumption through the provision of program offerings that include incentives and education.

Enbridge engaged the SeeLine Group (SLG) to conduct a Process Evaluation study of its Residential Adaptive Thermostat (Adaptive T-Stat) offering. Several devices are eligible for rebates through the Residential Adaptive T-Stat Offer, however ecobee is the only manufacturer with the capacity and willingness to track whether the devices delivered through the offer have successfully connected to Wi-Fi, referred to as a successful "ping." Enbridge uses the results of ecobee's reported ping rates as a proxy adjustment factor for the whole offer, which ranged from 82.52% to 86.71% as documented in Table 1 below.¹

Table 1, ecobee Ping Rate Adjustment Factors for 2021 and 2022.

Year	Company	Ping Rate
2021	Legacy Enbridge Gas Inc.	82.52%
2021	Legacy Union Gas Ltd.	84.19%
2022	Legacy Enbridge Gas inc.	86.71%
2022	Legacy Union Gas Ltd.	86.07%

As previously noted, the scope of the process evaluation study is focused on customers for whom ecobee did not register a successful Wi-Fi connection ping to help understand the challenges they may have faced, real or perceived, and provide insights into potential performance improvement opportunities. To support this, the project attempted to gain insights into factors that influenced customer's motivation to participate in the Residential Adaptive T-Stat offer, and the rationale(s), influential factors, and barriers associated with the subsequent follow-through with installing the device and connecting it to Wi-Fi through deploying a survey to past participants.

¹ Enbridge Gas Distribution amalgamated with Union Gas Limited in 2019 to form Enbridge Gas Inc. Given the historic customer data systems, Enbridge Gas Inc. tracked the performance of each legacy entity separately.

2.0 Methodology

This process evaluation study included five distinct, staged activities, designed to inform continuous improvement Wi-Fi connection ping rate opportunities for the Residential Adaptive T-Stat Rebate Program as detailed below.

2.1 Discovery and Supplemental Research

The first step in supporting the overarching objectives related to gathering, reviewing, and analyzing all relevant program documentation to ensure the project team had a comprehensive understanding of the various components and actors involved in the design, delivery, and tracking of the offering. SLG created a Discovery Matrix to document the twenty (20) documents provided by Enbridge associated the Residential Adaptive T-Stat Offer.

As result of the Discovery Phase, SLG updated the Project Plan, and used the information to inform the development of a logic model and the structured interview questions for the next stage of project activities.²

Supplemental Research

As a concurrent activity with Discovery, SLG conducted secondary research to identify comparative, innovative, and leading practice programs and examine potential differences and enhancement opportunities to explore further. Supplemental research was also conducted to explore the hypothesis that rural areas may have challenges accessing high-speed internet, which could contribute to decreased successful ping rates. The information gathered through the supplemental research was useful in supporting developing the sampling protocol, structured interview questions, and the past participant survey.

2.2 Structured Interviews

SLG developed the format, content, and process for the interview interviews, which included consistent questions for all interviewees, in addition to unique questions tailored to the specific perspectives of the interviewees. Eight (8) interviews were conducted with individuals representing various Residential Adaptive Thermostat perspectives. The results from the structured interviews were reviewed, coded, and analyzed by the SLG team to help provide insights into potential program improvement considerations and context for the participant survey questions.

2.3 Sample Protocol

Engaging past participants in a survey is a critical component of this process evaluation study, and to support this, the Apex Analytics members of the SLG team developed a Sample Protocol to help ensure the population of past participants was appropriately considered. The Sampling Protocol included participant data provided by Enbridge. It was

² The Residential Adaptive T-Stat logic model and customer journey map are presented in Section 3.1 of this report.

determined that the variance in the Wi-Fi connection adjustment factors for program years 2021 and 2022 were not statistically significant and, given the offer was consistent across the two years, the participants across the two years were grouped into two: participants who ecobee had reported a successful Wi-Fi ping, and participants who did not register a successful Wi-Fi ping.

The primary objective of this process evaluation study was to identify opportunities to improve the performance results associated the Smart ecobee T-Stat device, and as such, the Sample Protocol prioritized the “no ping” participants for program years 2021 and 2022. A small sample of successful ping past participants was included to enable a triangulated control group. The Sample Protocol is included in Appendix A.

While the Sample Protocol prioritized 2021 and 2022 “no ping” participants as the primary cohort, SLG recommended grouping the “no ping” participants into Rural and Urban segments based on a review of the supplemental research, which indicated a potential issue for rural Ontario residents to access high-speed. This segmentation of the sample allowed further exploration of the potential likelihood that some rural customers could have a more challenging experience connecting their devices to Wi-Fi. This decision required manually sorting program participant data by cities/regions prior to pulling the sample for both subsets.³

The sample size was limited to 300 customers to align with Enbridge’s cyber-security requirements, which allowed for the inclusion of alternate sample points given the likelihood that some past participants would be unresponsive or decline to do the survey for a variety of reasons.

2.4 Survey Design, Test, and Field

Referencing the information gathered through the Discovery and Structured Interview activities, the SLG team circulated a draft survey instrument with Enbridge, and received feedback from members of the Evaluation, Program Design, and Market Research departments. In addition to incorporating the feedback received, the project team reviewed the timing for fielding the survey with Enbridge and discussed opportunities to help improve the survey response rates beyond sending the sampled participants and advanced notification letter. A decision was made to offer an appreciation \$25 grocery voucher/gift card for customer’s taking the time to complete the survey to one of the following grocers:

- Farm Boy
- Food Basics
- Metro
- No Frills
- Sobeys

SLG revised the survey to reflect this change and established a process for tracking and purchasing the gift cards for participants that completed the survey.

³ Wikipedia, *List of Cities in Ontario*, https://en.wikipedia.org/wiki/List_of_cities_in_Ontario, accessed September 2024. For areas not listed in the Wikipedia list of Cities, SLG used a cut-off population size of 50,000 coupled with a population density of 400 residents per square kilometer to differentiate Rural versus Urban areas.

In addition to changes to the survey instrument, the following actions were taken to support survey success:

- Establishment of guidelines for the survey deployment to help ensure customer satisfaction was not compromised, such as calling every 3rd day and limiting the number of calls to four total over the course of two weeks;
- Creation of a frequently asked questions (FAQ) document for Enbridge's Customer Care department to support the ability to respond to any survey-related questions or concerns; and,
- Creation of a tracking process for the grocery gift vouchers, including a unique identification number for each participant to enable Enbridge to send a post-survey thank you letter with the gift voucher without compromising customer anonymity and data security.

Three survey tests were conducted and recorded and shared with Enbridge for review and approval prior to calling the sampled customers. The final survey is provided in Appendix B.

3.0 Outcomes & Findings

The outcomes and findings associated with each of the activities outlined in the Methodology Section are presented following the same chronology as Section 2.

3.1 Discovery & Supplemental Research

The Discovery activity provided important background and context to support the overarching objectives of the Adaptive T-Stat process evaluation, as it enabled the SLG team to map out the various inputs and outputs of the offering. As noted in Section 2.1, twenty documents provided through Discovery within the following four categories:

- Design (4)
- Marketing (11)
- Tracking and Reporting (2)
- Evaluation (3)

After documenting, coding, and theming the Discovery content in a research matrix, SLG drafted a program Logic Model to organize the key inputs, activities, outcomes, and goals of the program, categorized within Financial, Enbridge and Summerhill Group Human Resources, and Technical Resources involved in the offering. The logic model is presented in Section 3.2.

SLG updated the Project Plan to reflect the insights gained through the review of the Discovery content to support the refinement of focus areas, key processes, and timelines and priority questions for the structured interviews, survey development, outreach requirements, data collection, scheduling, and project risk management considerations.

Supplemental Research - Scan of Smart Thermostat Programs

SLG conducted a secondary internet-based research scan to identify innovative and leading practice smart thermostat rebate programs, particularly those offered by natural gas utilities, to examine potential differences and enhancement opportunities. Nine thermostat rebate programs were identified across Canada,⁴ seven of which are specific to Smart/Connected devices, while two focused on programmable thermostats. A high-level summary of the programs identified through the scan is provided in Table 2.

Table 2., Smart Thermostat Rebate Programs in Canada

Region	Company/Program	Rebate	Utility	Description
Alberta	City of Red Deer Red Deer Energy Efficiency Rebate Pilot Program	\$50	N	Residents of Red Deer can access a rebate for installing a smart thermostat.
British Columbia	Pacific Northern Gas Home Heating System Tune Up & Smart Thermostat Program	\$250	Y	Rebate available to customers for qualifying EnergyStar certified smart thermostat

⁴ This list is not intended to be a census of Smart Thermostat Rebate programs, rather the outcomes of the limited supplemental research scan efforts. Note, although a search was conducted for evaluation reports for each of the programs listed in Table 2, no evaluation reports were identified.

Region	Company/Program	Rebate	Utility	Description
British Columbia	FortisBC Connected Thermostat Rebates	\$150	Y	Rebate on select Smart thermostats (\$200 for income qualified customers)
Saskatchewan	SaskPower & SaskEnergy Smart Thermostats	\$75 (up to 55%)	Y	Rebate on EnergyStart certified connected thermostat
Quebec	Energir Thermostat Intelligent (Smart Thermostat)	\$100 (up to 75%)	Y	Smart thermostat grant available for eligible EnergyStar certified models.
Newfoundland and Labrador	Newfoundland Labrador Hydro & Newfoundland Power Take Charge	\$20	Y	Rebate is available for the installation of a programmable thermostat
Nova Scotia	Efficiency Nova Scotia (funded by NS Power) Smart Thermostat Rebates	\$45	Y	Incentives are available for Smart Thermostats specific to different applications. They also offer a \$20 load-shifting rebate.
Prince Edward Island	Government of Prince Edward Island Instant Rebates on Energy Efficiency Products	\$100 (up to)	N	EfficiencyPEI offers incentives on EnergyStar qualified smart thermostats with geo-fencing abilities and a min. \$150 retail price
Nunavut and Northwest Territories	Artic Energy Alliance Energy-Efficient Product Rebates	\$150 (50% up to \$150)	N	Incentives are for programmable thermostats

Aggregate program studies from the ACEEE were also reviewed to gain insights into programs available in the USA. Overall, there appears to be a growth in the number of utilities and energy service providers that offer incentives for Smart Thermostats,⁵ the offers reviewed in support of this study did not reveal any innovative or leading practices in terms of approaches to program design and delivery, or evaluation, for Enbridge's consideration.

Supplemental Research - Internet Access in Rural/Remote Ontario

SLG hypothesized that internet access challenges may contribute to the lack of successful ping rates of ecobee devices and conducted web-based research to explore this further. Although access to high-speed internet continues to improve in rural and remote areas, with 91% of Canadians having access to high-speed internet, a significant divide appears to remain between rural and urban communities.⁶ According to ConnectedNorth.ca, less than

⁵ Snell, Essie, Clare Valentine (2020), *Marking the Smart Home Work for You: Wrangling Energy and Demand Benefits Out of Connected Tech*. E Source, <https://www.esource.com/system/files/esource-aceee-making-the-smart-home-work-for-you.pdf>, Accessed July 30, 2024.

⁶ Connectednorth.ca (2023), *Northern Ontario Broadband Report 2023*, <https://connectednorth.ca/wp->

60% of rural, remote, and Indigenous communities have access to high-speed internet.⁷ Figure 1 below depicts communities with access to high-speed internet, with the beige, orange, amber, and red-zone indicating areas where more than half of residents do not have access to high-speed internet.

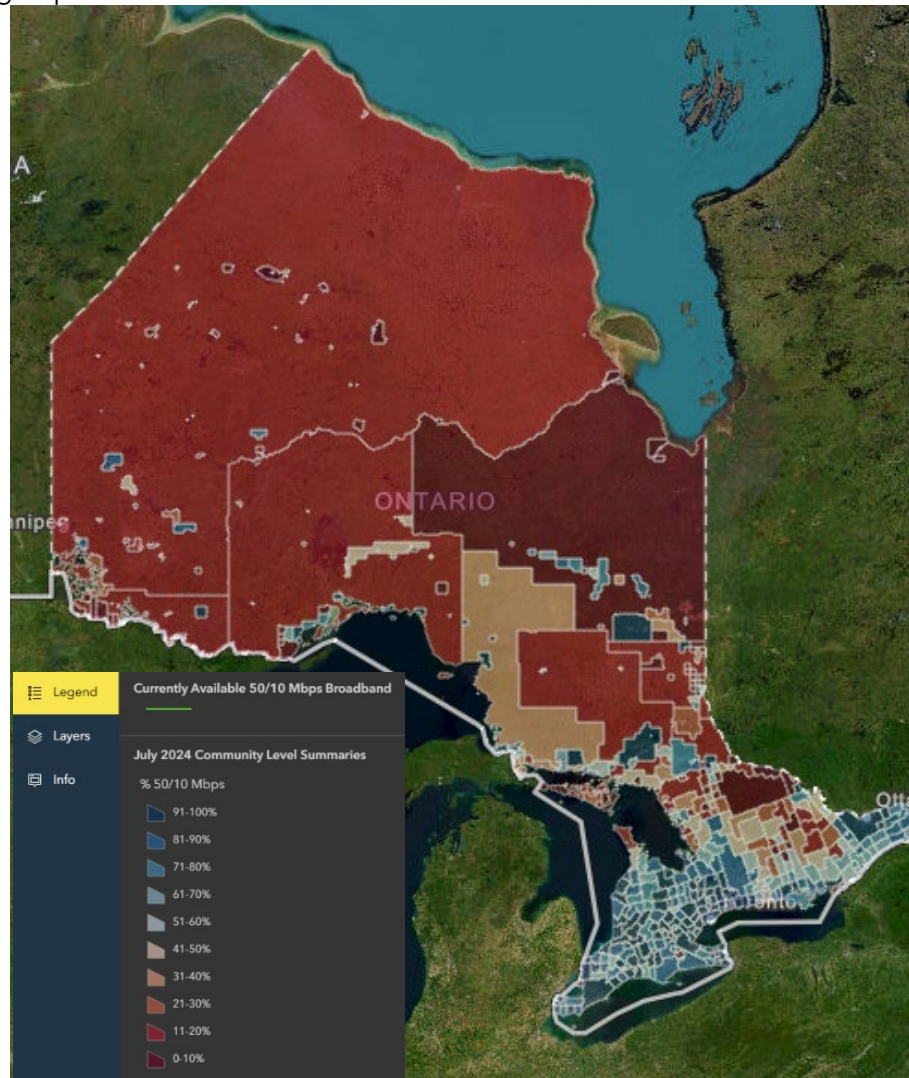


Figure 1. Ontario Internet Access Map⁸

content/uploads/2023/06/Blue-Sky-Net-Northern-Ontario-Broadband-Report-2023.pdf, Accessed July 29, 2024.

⁷ Ibid

⁸ Connectednorth.ca, *Ontario Internet Access Map*, developed by Blue Sky Net., <https://connectednorth.ca/ontario-internet-access-map/>, Accessed July 29, 2024.

3.2 Structured Interviews

The materials provided through the Discovery process enabled a mapping of the various program components, which informed questions to help augment and clarify the flow of the components, providing a more comprehensive understanding of the Residential Adaptive Thermostat offering. As described in Section 2.2, SLG conducted interviews with eight (8) individuals representing the following perspectives:

- Enbridge
 - Program Design
 - Tracking and Reporting
 - Market Research
 - Evaluation
- Summerhill Group
 - Program Delivery Agent
 - Call Centre Support
- ecobee
 - Current Process
 - Historic Process

SLG coded and analyzed the results of the structured interviews, which provided additional insights into the Adaptive T-Stat Offer inputs and activities associated with Program Design, Marketing, Program Portal Management, Customer Care, Evaluation, and Tracking & Reporting as detailed below.

Summary of Structured Interview Themes

1. Adaptive T-Stat Offer Related Role Responsibilities:

- **Program Design:** Within Enbridge, the Program Design representative is responsible for developing the program concept, incentive structure, and manages the overall program performance. The Program Design team is supported by Marketing, which creates promotional materials to help engage customers.
- **Delivery Agent:** Summerhill Group (SHG) had been engaged to administer the Residential Adaptive Thermostat offer on behalf of Enbridge. SHG maintains the customer portal, which is hosted on Enbridge's website, and is responsible for supporting retailers to ensure the appropriate rebates are available for the customers. SHG's in-house Customer Call Centre supports customer relations.
- **Evaluation:** The Program Design representative liaises with ecobee and provides the ping reports to the internal Enbridge Evaluation representative, who is responsible for adjusting the Offering's performance with the appropriate rate to include in the annual DSM report subject to audit by the OEB's evaluator.⁹
- **Tracking & Reporting** supports quality assurance in the form of maintaining a current "Does Not Qualify" (DNQ) list of customers who have already participated in the Adaptive T-Stat Offer, eligibility checks prior to entering participating customer data into Enbridge's Tracking system, and data-output to support Evaluation and Audit requirements.

⁹ Prior to 2023, ecobee used an Energy Control Platform ("ECP") to pull customer Wi-Fi connect data associated with participant device serial numbers; however, the ECP was designed to help enable electricity demand-response and was not designed to verify Wi-Fi connection rates. In 2023, ecobee developed a new tool to enable Wi-Fi ping tracking.

2. **Continuous Improvements:** Several improvements have been made over the past 3-5 years to support the Adaptive T-Stat Offer, including:
- Introduction of an enhanced incentive for **moderate income customers** in partnership with the Independent Electricity System Operator in 2021 to help improve accessibility of the offer.
 - Introduction of a **contractor stream** in 2022, through which the contractor submits the rebate request through the portal and installs the device for the customer. The process for the contractor stream was adjusted in 2023 to improve the user-interface for contractors.
 - A refined **returns process** was introduced in 2022, which enabled SHG to track customers who returned their device and offer those customers a new rebate code for a different device. This requires communication of the return details from the retailer to SHG, who then informs Program Design as their point-of-contact, who forwards the information to Enbridge's Tracking department. The Tracking Department adjusts the DNQ to reflect the return to ensure the customer is eligible to be tracked as a new participant with the new device. The retailers have also improved the timeliness of communicating the returned items to SHG.
 - Moved the Adaptive T-Stat Offer portal data management to the **Parachute** platform in 2024 to align with other DSM offers, enhance efficiency, and improve the user experience. Parachute has more built-in redundancies and a broader bandwidth to support fluctuating demands associated with limited time offers (LTOs).
 - **Communication:** When Enbridge introduces new enhanced incentive (LTOs, SHG receives advance notice to allow scaling up resources to manage the associated increased demand. This communication is critical to ensuring SHG can maintain customer satisfaction, and also achieve the contract performance requirement for the Customer Care Call Centre, which is required to answer 80% of customer calls within 25 seconds.
 - Increased **frequency and timeline associated with ping tracking** by ecobee to help improve the accuracy of the ping-rate adjustment factors for the Offering.
3. **Risk Management:**
- **Customer Data:** SHG collects and validates data from participants and retailers to ensure accurate tracking of rebate codes with customer participants. SHG's role includes Quality Assurance and Quality Control (QA/QC) processes to scrub data for duplicates, manage device returns, and validate eligibility to participate. A second level of QA/QC is performed by Enbridge Tracking & Reporting to validate eligibility, maintain a current DNQ list, and provides a program participant data to the Enbridge internal Evaluation Representative for reporting and audit purposes.
 - **Rebate Codes:** Retailers involved in the Offer provide rebate codes to be used at the point-of-sale (POS) for their respective stores which is a critical enabler within the Offer process. Enbridge notes that a technical or processes issues associated with creating the rebate codes has the potential to disrupt the program performance. To help mitigate this risk,

SHG tracks the available rebate codes for each retailer and submits requests for more codes with sufficient advance timing to avoid potential delays.

- **System/Portals:** The web portal and call center are reliant on one system as the source of information. If the system fails, it could cause widespread issues.
- **Outreach and Engagement:** Marketing plays a pivotal role in driving participation. The use of digital marketing methods and limited time offers has been associated with significant increases in engagement and customer uptake.

In summary, the program emphasizes a positive, accessible user-experience, with a high degree of quality control, continuous improvements based on regular internal performance reviews, and strategic marketing efforts to maximize participation and achieve the short-, mid-, and long-term goals.

Outcomes of the structured interview were used to refine the draft logic model of the Residential Adaptive T-Stat Offer, which is presented on the following page. In addition, SLG created a process flow chart for the offer, as shown on page 15.

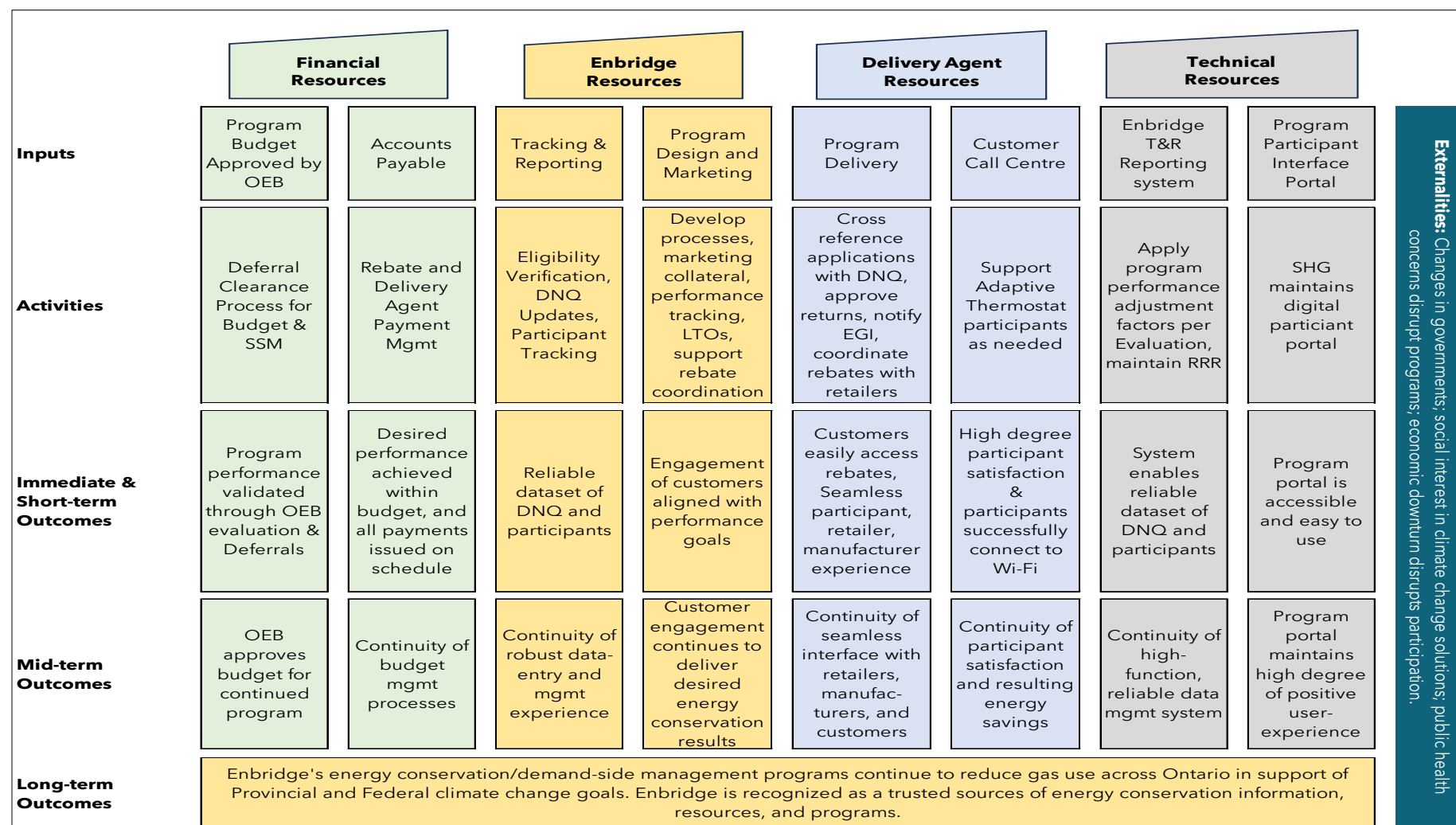


Figure 2. Adaptive Thermostat Offering Logic Model

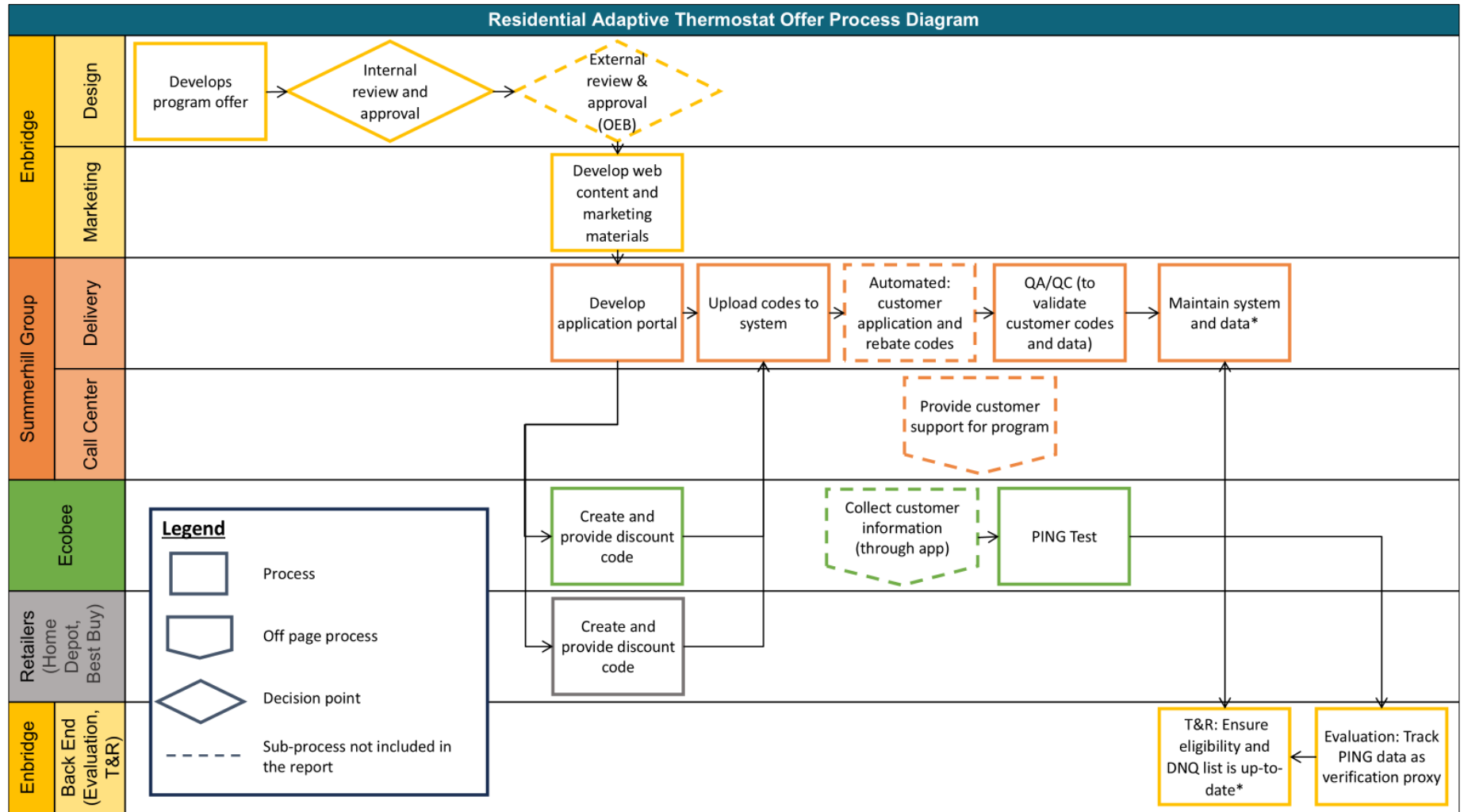


Figure 3. Adaptive Thermostat Offering Process Flow Chart

3.3 Sample Protocol

Given the primary objective of this process evaluation study was to identify opportunities to improve the performance results associated with participants connecting their Smart T-Stat devices to Wi-Fi, the Sample Protocol prioritized the “no ping” participants for program years 2021 and 2022. For the purpose of providing an opportunity to triangulate responses with past participants for whom a successful Wi-Fi connect ping was registered, a small sample of successful ping participants was also included.

While the Sample Protocol prioritized 2021 and 2022 “no ping” participants as the primary cohort, a review of the supplemental research pertaining to rural access to high-speed internet with the project team and Enbridge lead to a decision to group the “no ping” participants into Rural and Urban segments. This segmentation of the sample would allow further exploration of the potential likelihood that some rural customers could have a more challenging experience connecting their devices to Wi-Fi. This decision required manually sorting program participant data by cities/regions prior to pulling the sample for both subsets.¹⁰

The Sampling Protocol is included in Appendix A, and a high-level summary of the sample results is presented in Table 3, including the associated margin of error at 90% confidence. Overall, the completed survey sample count achieved a **±9% precision rate with 90% confidence**.

Table 3. Summary of Sample Results at 90% Confidence Interval.

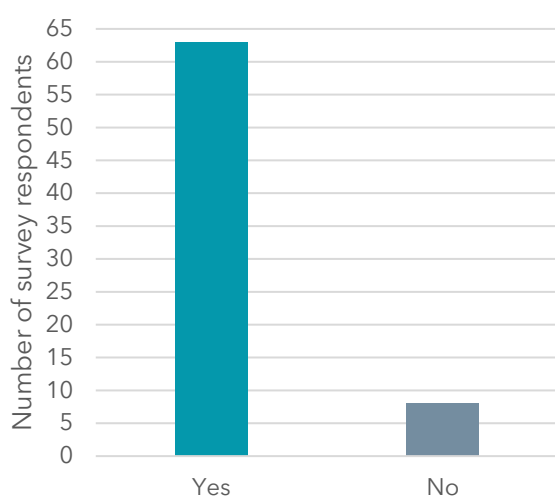
Sample Groups		Population Count	Survey Complete Sample Count	Margin of error at 90% confidence	
				2- Tailed	1-Tailed
Did not connect to internet (“No Ping”)	Urban	1,174	36	±14%	±7%
	Rural	410	33	±14%	±7%
	Total	1,584	69	±10%	±5%
Installed and connected to internet (“Successful Ping”)		8,937	7	±31%	±16%
Full Sample		10,521	76	±9%	±5%

¹⁰ Wikipedia, *List of Cities in Ontario*, https://en.wikipedia.org/wiki/List_of_cities_in_Ontario, accessed September 2024. For areas not listed in the Wikipedia list of Cities, SLG used a cut-off population size of 50,000 coupled with a population density of 400 residents per square kilometer to differentiate Rural versus Urban areas.

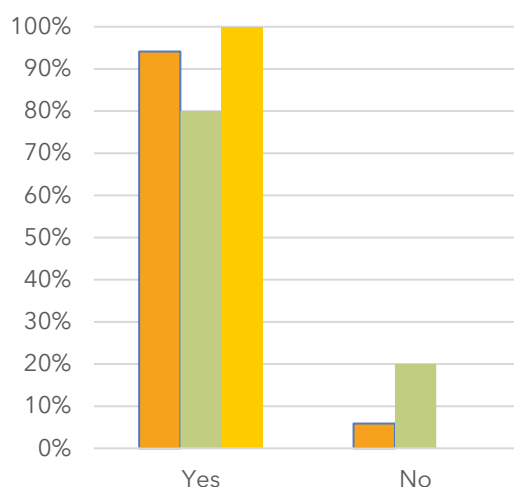
3.4 Participant Survey Results

The survey deployment involved a telephone survey, outreach which included four attempts to contact 300 customers across two weeks. In total, 76 past participants completed the survey, and achieved an overall margin of error of $\pm 9\%$ with 90% confidence. The survey is provided in Appendix B, and the associated confidence breakdown for each question is included in Appendix A. This section provides the results associated with questions of relevance in the form of bar graphs for most questions. The information is presented in the form of bar graphs for the majority of questions, and the sequence of information presented begins with the overall results for all respondents, followed by a breakdown of urban versus rural participant responses as appropriate.¹¹ In addition, the specific counts, percentages, and margin of error at the 90% Confidence Interval are presented in a table for each question beneath the bar graphs.

Question 3: Is the device installed at your residence?



Figures 4. Response Rates Associated with Survey Question 3



Urban No Ping Rural No Ping Successful Ping

Figure 5. Rural vs. Urban Results Breakdown of Figure 4

The vast majority of the survey respondents (63/71, or 89%) indicated the device is currently installed at their residence compared with 11% of past participants who indicated they had not installed the device.

Table 4. Detailed Results for Question 3 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	32	94%	80%	99%	24	80%	61%	92%	7	100%	59%	100%	63	89%	81%	94%
No	2	6%	1%	20%	6	20%	8%	39%	0	0%	N/A	N/A	8	11%	6%	19%

¹¹ Certain questions were included for survey set-up purposes, or were not asked due to responses to preceding questions, and as such, the survey results are not presented, and/or not presented in chronological order. In instances with low response counts, only one bar graph may be included.

Three respondents to Question 3 required support to determine if the thermostat installed in their home was an ecobee device, and they provided responses to Question 4, which was designed to reduce potential “don’t know” responses.

Question 4. ecobee thermostats are square shaped with rounded corners and say “ecobee” in small gray letters at the bottom. Does that description match the thermostat installed in your residence?

The supportive description resulted in two additional survey respondents noting that the ecobee device is installed, and one whose thermostat did not match the description.

Table 5. Detailed Results for Question 4 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	2	100%	16%	100%	0	0%	N/A	N/A	0	0%	N/A	N/A	2	67%	14%	98%
No	0	0%	N/A	N/A	1	100%	3%	100%	0	0%	N/A	N/A	1	33%	2%	87%

Given these follow up answers directly related to Q3, the results for the two questions have been combined and are depicted below.

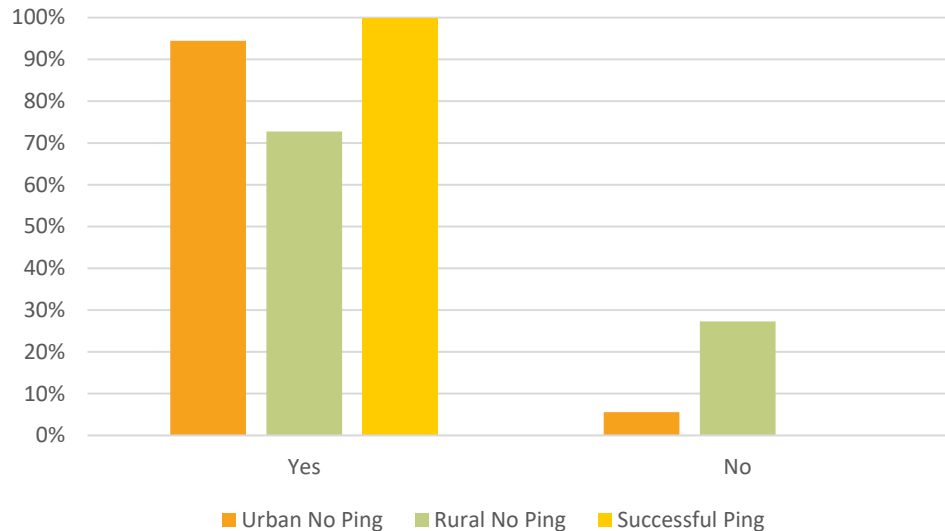


Figure 6. Combined Responses Associated with Survey Questions 3 and 4.

Table 6. Detailed Results Combined for Questions 3 & 4 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	34	94%	84%	99%	24	73%	62%	89%	7	100%	65%	100%	65	88%	80%	94%
No	2	6%	1%	17%	7	23%	11%	38%	0	0%	N/A	N/A	11	12%	7%	20%

The following question was asked to the survey respondents who answered “no” to questions 3 and 4, indicating they had not installed the ecobee device.

Question 5. Do you still have the ecobee thermostat you purchased through Enbridge Gas’ Smart Thermostat Rebate Program?

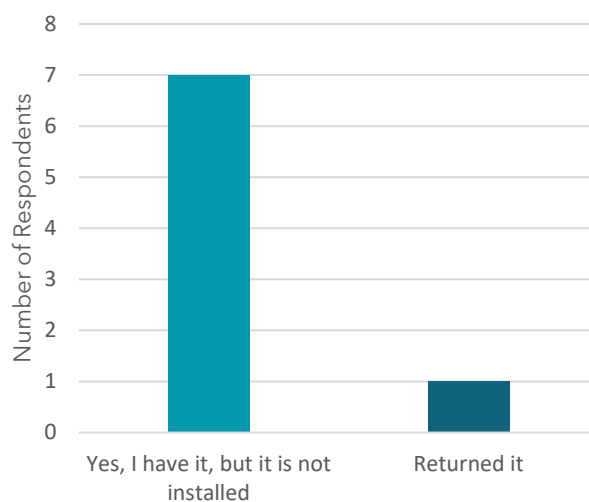


Figure 7. Responses Associated with Survey Question 5.

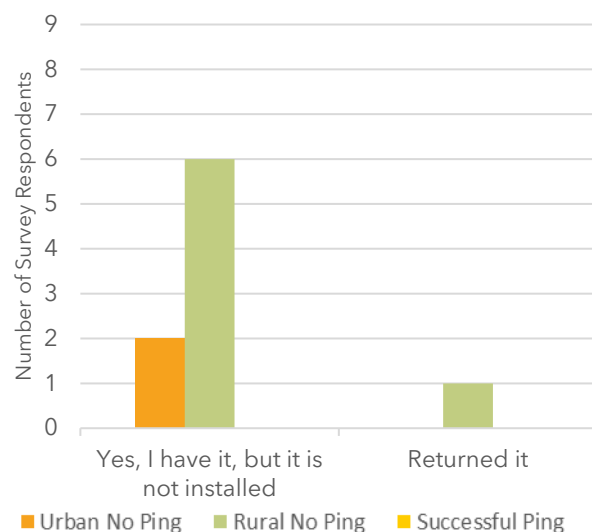


Figure 8. Rural vs. Urban Results Breakdown of Figure 7.

Nine survey respondents were asked Question 5, and eight indicated they still have the device while one respondent noted that they had returned the device.

Table 7. Detailed Results for Questions 5 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes, I have it, but it's not installed	2	100%	16%	100%	6	86%	42%	100%	0	0%	N/A	N/A	8	89%	57%	99%
No, I no longer have it	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A
Other	0	0%	N/A	N/A	1	14%	0%	58%	0	0%	N/A	N/A	1	11%	1%	43%

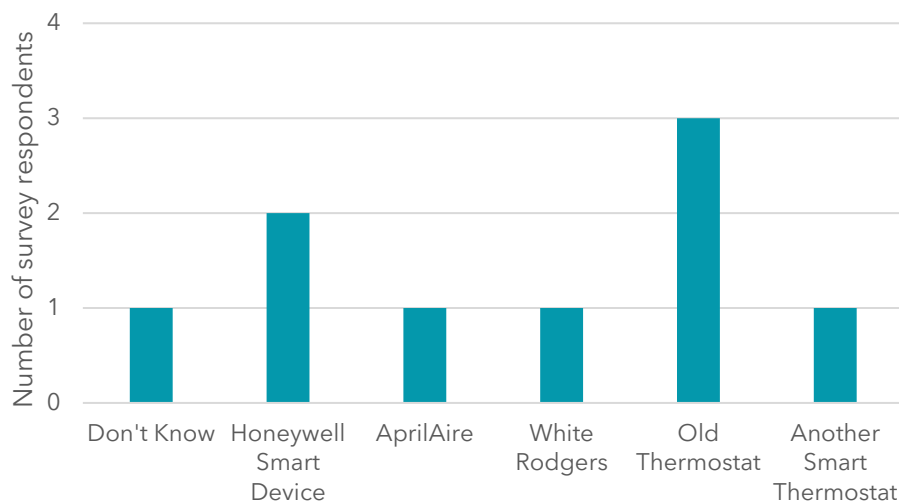
Question 6. What did you do with the ecobee thermostat you purchased through the Enbridge Gas program?

One respondent indicated they had returned the device they purchased with the program rebate, and eight respondents noted “other”. Of the eight “other” responses, five customers noted they were unable to install the device due to difficulties, and one of those commented that there was an issue with the wiring.

Table 8. Detailed Results for Questions 6 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
I returned it	0	0%	N/A	N/A	1	14%	0%	58%	0	0%	N/A	N/A	1	11%	1%	43%
Other	2	100%	16%	100%	6	86%	42%	100%	0	0%	N/A	N/A	8	89%	57%	99%

Question 7. What type of thermostat are you currently using in your home instead of the ecobee thermostat?

**Figure 9. Responses Associated with Survey Question 7.**

Question 7 is a follow up question in the sequence for the nine respondents who were asked Question 5, who provided insights into the thermostats they are currently using as depicted in Figure 8.

Table 9. Detailed Results for Questions 7 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Another smart thermostat	0	0%	N/A	N/A	1	14%	0%	58%	0	0	N/A	N/A	1	11%	1%	43%
My old thermostat	1	50%	1%	99%	2	29%	4%	71%	0	0	N/A	N/A	3	33%	10%	66%
Other (see bar graph)	1	50%	1%	99%	3	43%	10%	82%	0	0	N/A	N/A	4	44%	17%	75%
Don't Know	0	0%	N/A	N/A	1	14%	0%	58%	0	0	N/A	N/A	1	11%	1%	43%

The following open-ended question was asked to the nine respondents who indicated the ecobee Thermostat was not installed.

Question 8. Was the ecobee thermostat installed at any point?

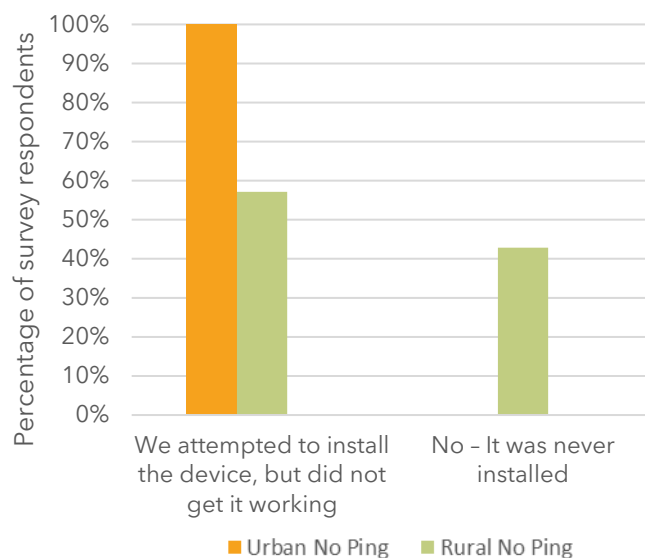


Figure 10. Responses Associated with Survey Question 8 with Rural vs. Urban Breakdown.

Six respondents noted that they had attempted to install the device but could not get it working, while 3 noted that the device was never installed without providing additional insights.

Table 10. Detailed Results for Questions 8 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Attempted to install but did not get it working	2	100%	16%	100%	4	57%	18%	90%	0	0	N/A	N/A	6	67%	35%	90%
No - never installed	0	0%	N/A	N/A	3	43%	10%	82%	0	0	N/A	N/A	3	33%	10%	66%

The following open-ended question was asked to three respondents who indicated the ecobee thermostat was never installed.

Question 11. Why haven't you installed your ecobee thermostat?

The three responses to this question as transcribed by the survey agents were:

- The old thermostat is still good
- There is an issue with location where it is meant to go
- It seems too complicated

Table 11. Detailed Results for Questions 11 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
It seems too complicated	0	0%	N/A	N/A	1	33%	1%	91%	0	0%	N/A	N/A	1	33%	2%	87%
Other	0	0%	N/A	N/A	2	67%	9%	99%	0	0%	N/A	N/A	2	67%	14%	98%

The following open-ended question was asked to the nine respondents who indicated the ecobee Thermostat was not installed.

Question 12. Are you planning to try to install the ecobee smart thermostat in the future?

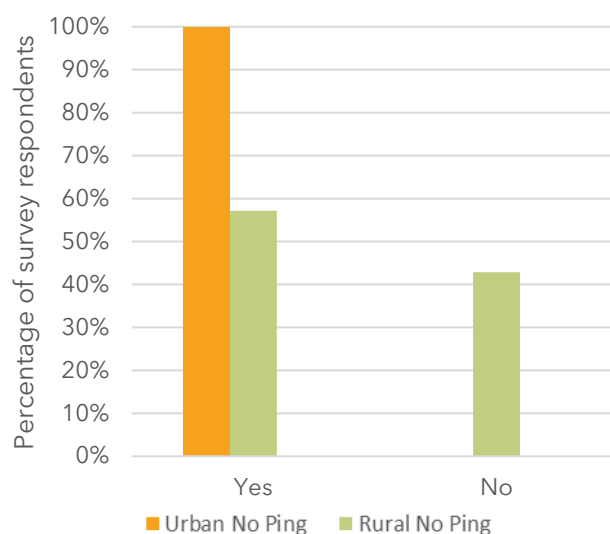


Figure 11. Responses Associated with Survey Question 12 with Rural vs. Urban Breakdown.

Approximately two-thirds of respondents (67%) indicated they intended to try to install the ecobee device in the future.

Table 12. Detailed Results for Questions 12 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	2	100%	16%	100%	4	57%	18%	90%	0	0%	N/A	N/A	6	67%	35%	90%
No	0	0%	N/A	N/A	3	43%	10%	82%	0	0%	N/A	N/A	3	33%	10%	66%

The three participants who responded no to question 12 above were asked the following open-ended question:

Question 13. Why aren't you planning to install the ecobee smart thermostat?

The three responses to Question 13 as transcribed by the survey agents were as follows:

- Purchased a Honeywell thermostat
- It is too expensive to install
- No (without further elaboration)

The following question was asked of all respondents who indicated they had installed the ecobee device.

Question 14. When your ecobee device was installed, did you connect it to Wi-Fi?

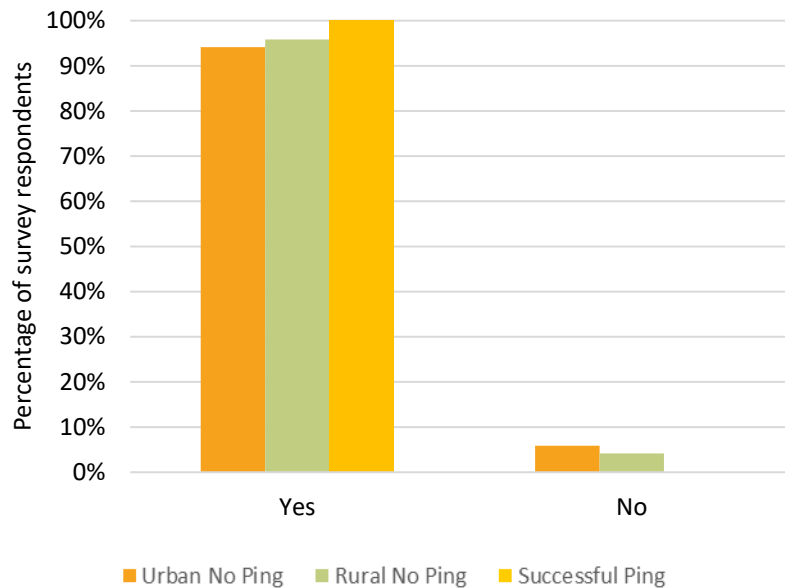
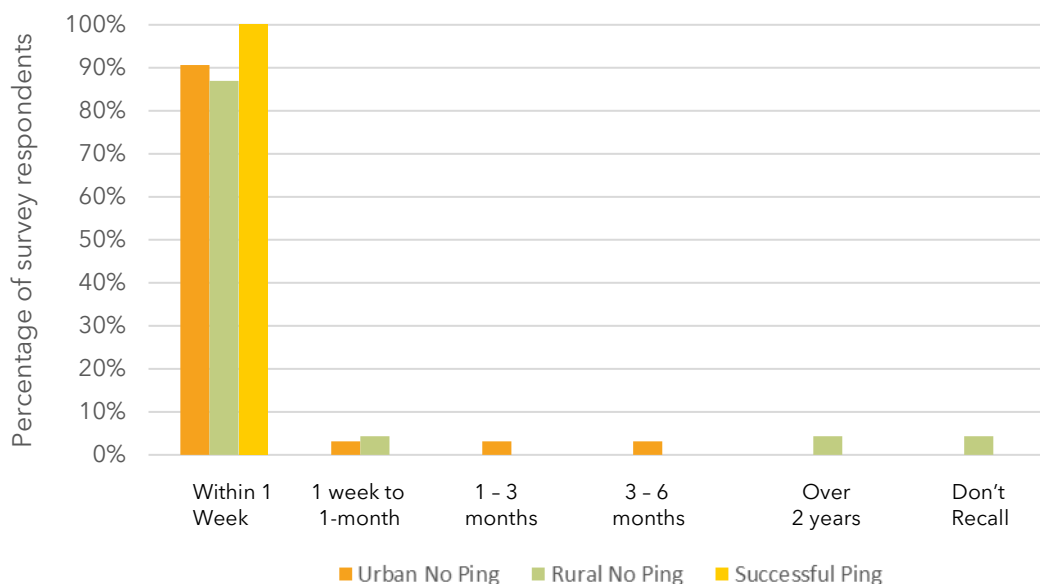


Figure 12. Responses Associated with Survey Question 14 with Rural vs. Urban Breakdown.

It interesting to note that 95% of the “no-ping” respondents indicated they have connected their device to Wi-Fi.

Table 13. Detailed Results for Questions 14 at 90% Confidence Interval.

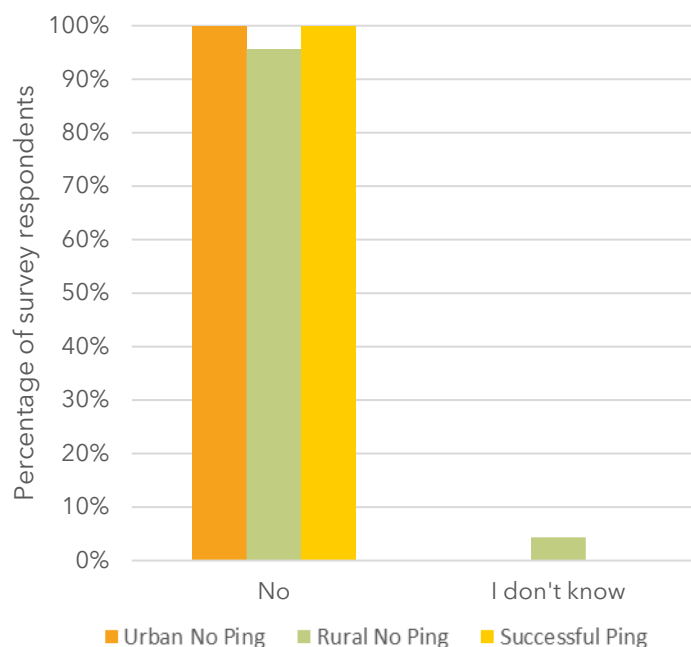
	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	32	94%	80%	99%	23	96%	79%	100%	7	1	59%	100%	62	95%	89%	99%
No	2	6%	1%	20%	1	4%	0%	21%	0	0	N/A	N/A	3	5%	1%	12%

Question 15. How soon after installing it did you connect the thermostat to Wi-Fi?**Figure 13. Distribution of Responses Associated with Survey Question 15 with Rural vs. Urban Breakdown.**

The majority of respondents (90%) indicated they connected the thermostat to Wi-Fi within one week after installing it.

Table 14. Detailed Results for Questions 15 at 90% Confidence Interval.

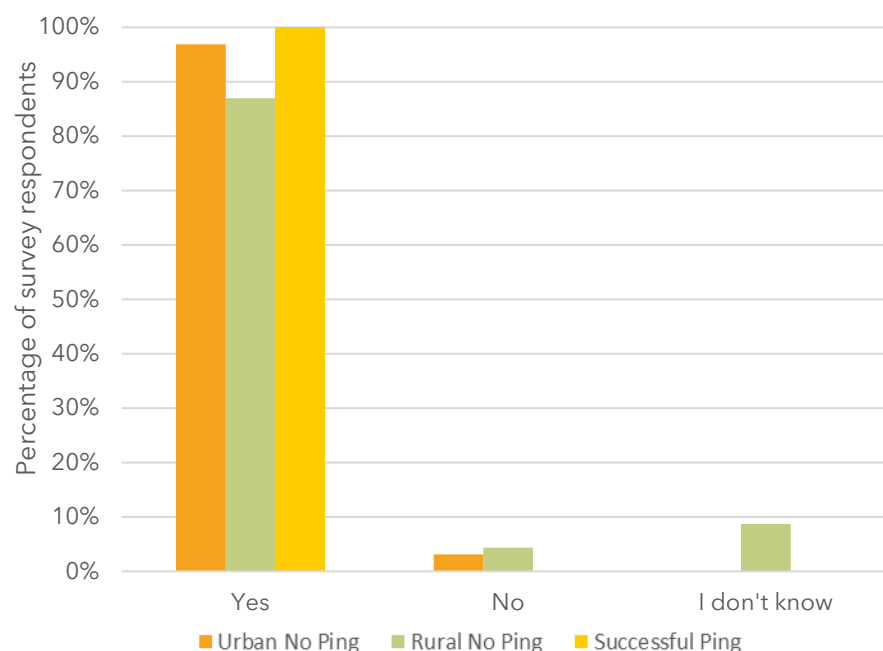
	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Within one week	29	91%	75%	98%	20	87%	66%	97%	7	100%	59%	100%	56	90%	82%	96%
Between 1 week and 1 month	1	3%	0%	16%	1	4%	0%	22%	0	0%	N/A	N/A	2	3%	1%	10%
Between 1 - 3 months	1	3%	0%	16%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	2%	0%	7%
Between 3 - 6 months	1	3%	0%	16%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	2%	0%	7%
More than 2 yrs	0	0%	N/A	N/A	1	4%	0%	22%	0	0%	N/A	N/A	1	2%	0%	7%
Don't Know	0	0%	N/A	N/A	1	4%	0%	22%	0	0%	N/A	N/A	1	2%	0%	7%

Question 16. Were there any issues connecting the device to Wi-Fi?**Figure 14. Distribution of Responses Associated with Survey Question 16 with Rural vs. Urban Breakdown.**

The majority (98%) of respondents did not encounter issues connecting the device to Wi-Fi.

Table 15. Detailed Results for Questions 16 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0	N/A	N/A
No	32	100%	89%	100%	22	96%	78%	100%	7	100%	59%	100%	61	98%	93%	100%
Don't Know	0	0%	N/A	N/A	1	4%	0%	22%	0	0%	N/A	N/A	1	2%	0%	7%

Question 17. Is your ecobee thermostat current connected to Wi-Fi?**Figure 15. Distribution of Responses Associated with Survey Question 16 with Rural vs. Urban Breakdown**

94% of survey respondents stated that their ecobee thermostat currently connected to Wi-Fi.

Table 16. Detailed Results for Questions 17 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	31	97%	84%	100%	20	87%	66%	97%	7	100%	59%	100%	58	94%	86%	98%
No	1	3%	0%	16%	1	4%	0%	22%	0	0%	N/A	N/A	2	3%	1%	10%
Don't Know	0	0%	N/A	N/A	2	9%	1%	28%	0	0%	N/A	N/A	2	3%	1%	10%

The following question was asked to the three respondents who answered no to question 14, indicating they had not connected the device to Wi-Fi after installing it.

Question 18. Why didn't you connect your ecobee thermostat to Wi-Fi?

The responses associated with question 18 were:

- Not interested in using Wi-Fi connection features
- Other - waiting for daughter to connect it to Wi-Fi
- Other - couldn't get it connected

The following four questions relate to the level of difficulty or ease associated with the purchase and installation of the ecobee thermostat on a scale of one-five, with one being extremely difficult and five being extremely easy.

Question 19a. How difficult or easy was it to apply for the discount through the Enbridge Gas portal?

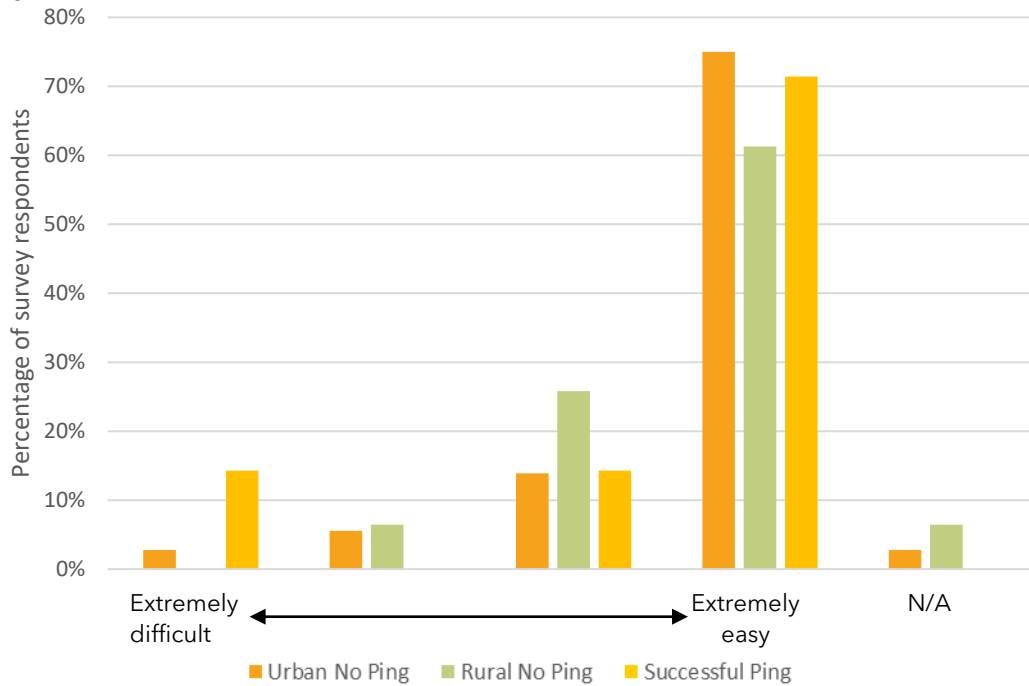
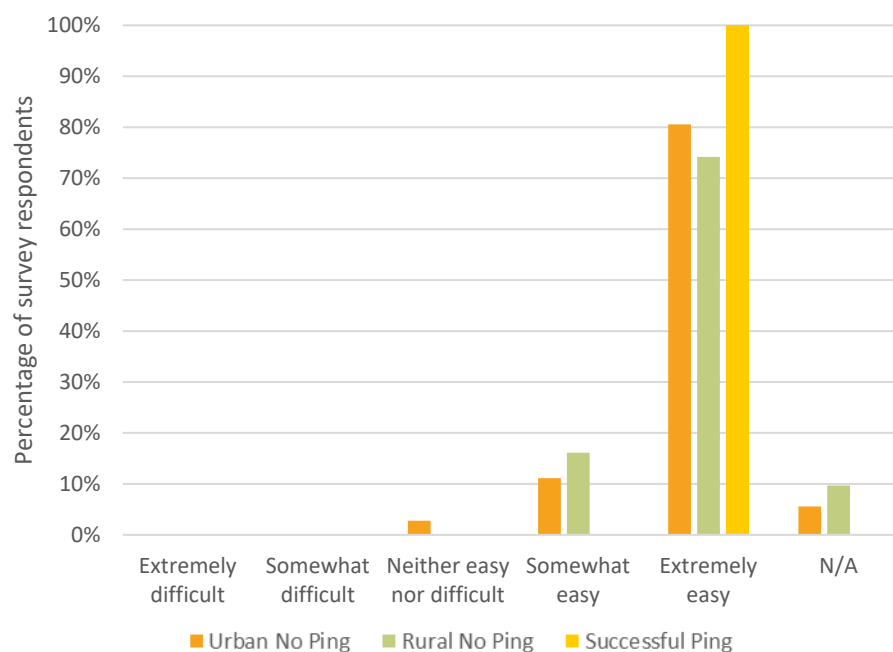


Figure 16. Distribution of Responses Associated with Survey Question 19a with Rural vs. Urban Breakdown

Majority of survey respondents (72%) stated that it was extremely easy to apply for the ecobee rebate. There is little difference in experience between successful ping, urban no ping, and rural no ping participants.

Table 17. Detailed Results for Questions 19a at 90% Confidence Interval.

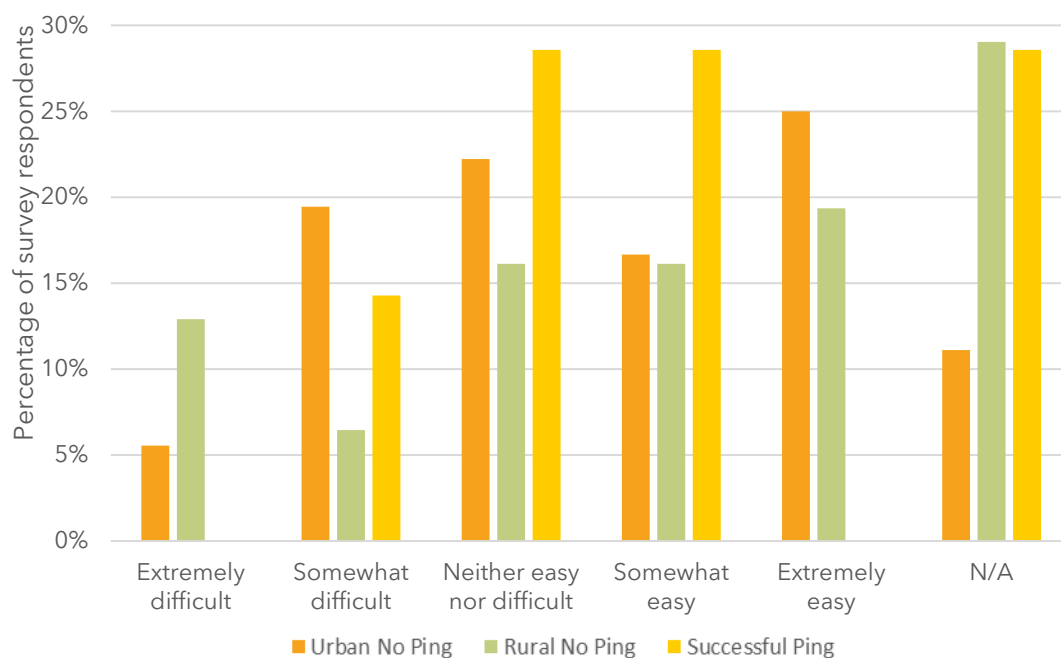
	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A
2	1	3%	0%	15%	0	0%	N/A	N/A	1	14%	0%	58%	2	3%	1%	9%
3	2	6%	1%	19%	2	7%	1%	23%	0	0%	N/A	N/A	4	6%	2%	12%
4	5	14%	5%	30%	8	28%	13%	47%	1	14%	0%	58%	14	20%	12%	29%
5	27	77%	60%	90%	19	66%	46%	82%	5	71%	29%	96%	51	72%	62%	81%

Question 19b. How difficult or easy was it to purchase an ecobee thermostat online?**Figure 17. Distribution of Responses Associated with Survey Question 19b with Rural vs. Urban Breakdown**

Responses demonstrated a common perception that purchasing the ecobee device online was not considered difficult, with 80% of respondents stating it was extremely.

Table 18. Detailed Results for Questions 19b at 90% Confidence Interval.

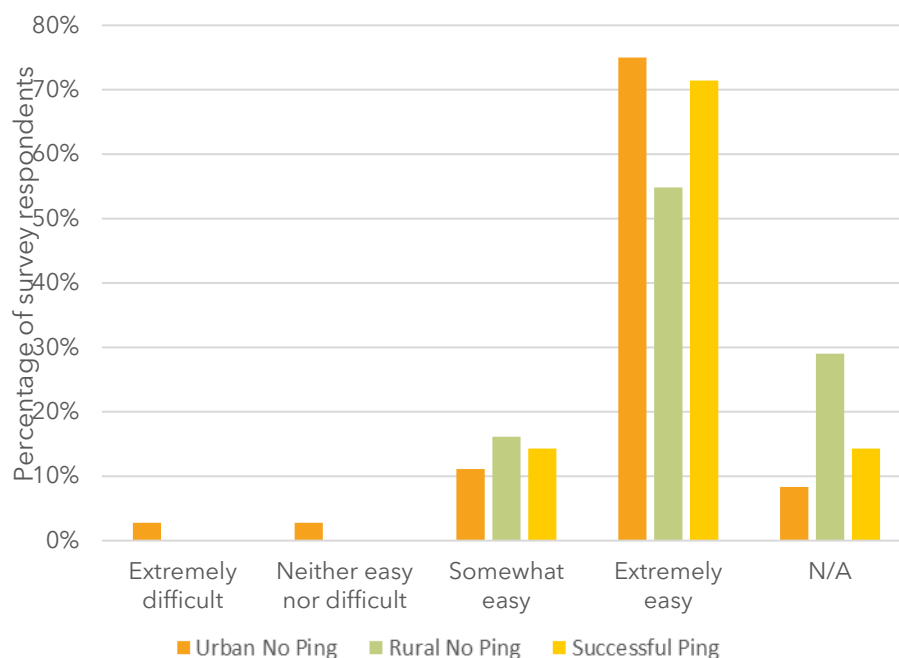
	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0	N/A	N/A
2	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0	N/A	N/A
3	1	3%	0%	15%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	1%	0%	7%
4	4	12%	3%	28%	5	18%	6%	37%	0	0%	N/A	N/A	9	13%	7%	22%
5	29	85%	69%	95%	23	82%	63%	94%	7	100%	59%	100%	59	86%	77%	92%

Question 19c. How difficult or easy was it to install the device once you received it?**Figure 18. Distribution of Responses Associated with Survey Question 19c with Rural vs. Urban Breakdown**

As demonstrated by Figure 18, customer experience associated with the device installation ranged.

Table 19. Detailed Results for Questions 19c at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	2	6%	1%	21%	4	18%	5%	40%	0	0%	N/A	N/A	6	10%	5%	19%
2	7	22%	9%	40%	2	9%	1%	29%	1	20%	1%	72%	10	17%	10%	27%
3	8	25%	12%	43%	5	23%	8%	45%	2	40%	5%	85%	15	25%	16%	36%
4	6	19%	7%	36%	5	23%	8%	45%	2	40%	5%	85%	13	22%	14%	33%
5	9	28%	14%	47%	6	27%	11%	50%	0	0%	N/A	N/A	15	25%	16%	36%

Question 19d. How difficult or easy was it to connect the device to Wi-Fi?**Figure 19. Distribution of Responses Associated with Survey Question 19d with Rural vs. Urban Breakdown**

Unlike the variability associated with the device installation, connecting the device to Wi-Fi once installed appeared less difficult overall.

Table 20. Detailed Results for Questions 19d at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	1	3%	0%	16%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	2%	0%	8%
2	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A
3	1	3%	0%	16%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	2%	0%	8%
4	4	12%	3%	28%	5	23%	8%	45%	1	17%	0%	64%	10	16%	9%	26%
5	27	82%	65%	93%	17	77%	55%	92%	5	83%	36%	100%	49	80%	70%	88%

Question 20. On a scale from one to five, with one being not clear at all to five being extremely clear, how clear were the installation instructions provided with the ecobee thermostat?

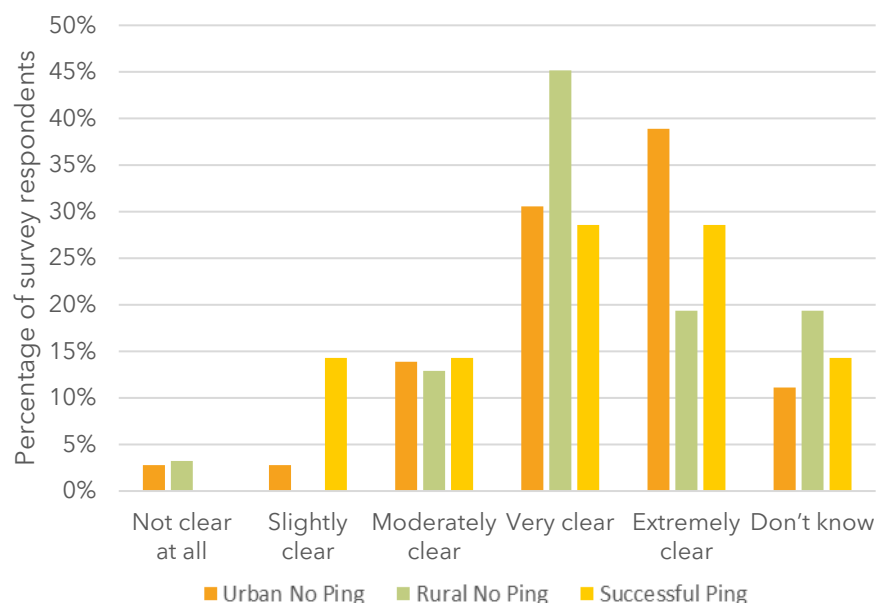


Figure 20. Distribution of Responses Associated with Survey Question 20 with Rural vs. Urban Breakdown

Majority of survey respondents found the installation instructions to be clear with 66% of survey respondents saying it was either extremely clear or very clear. The average and median response "very clear."

Table 21. Detailed Results for Questions 20 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Not clear at all	1	3%	0%	15%	1	3%	0%	17%	0	0%	N/A	N/A	2	3%	1%	8%
Slightly clear	1	3%	0%	15%	0	0%	N/A	N/A	1	14%	0%	58%	2	3%	1%	8%
Moderately clear	5	14%	5%	30%	4	13%	4%	30%	1	14%	0%	58%	10	14%	8%	22%
Very clear	11	31%	16%	48%	14	45%	27%	64%	2	29%	4%	71%	27	37%	27%	47%
Extremely clear	14	39%	23%	57%	6	19%	8%	38%	2	29%	4%	71%	22	30%	21%	40%
Don't Know	4	11%	3%	26%	6	19%	8%	38%	1	14%	0%	58%	11	15%	9%	23%

The following “multiple-response” question was asked of respondents who either attempted to install their ecobee device but could not get it working or found it too difficult/complicated to install the device in association with questions 8, 10, and 11.

Question 21. Did you consult any of the following resources for help with installation?

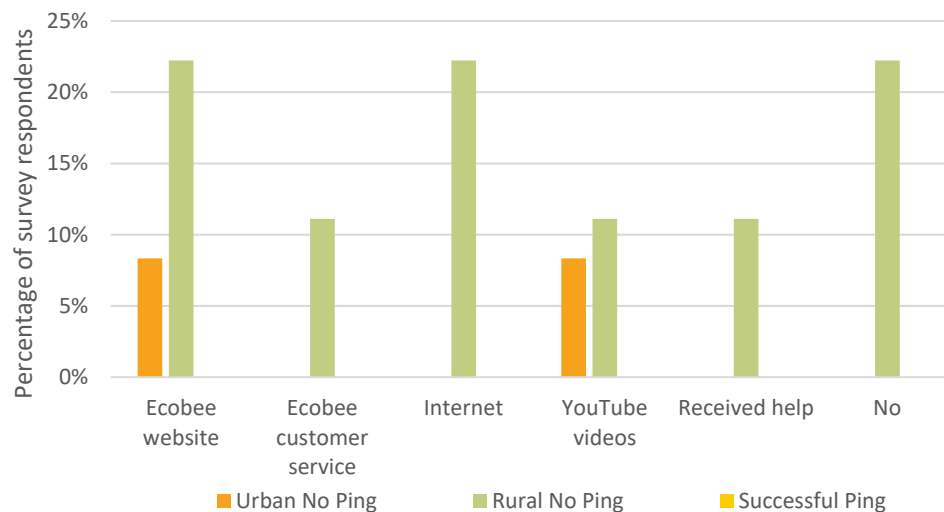


Figure 21. Distribution of Responses Associated with Survey Question 21 with Rural vs. Urban Breakdown

Participants generally consulted a variety of resources to support the installation of their devices, although 33% indicated they did not use any resources to help.

Table 22. Detailed Results for Questions 21 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Instructions from Enbridge Gas' website	0	0	N/A	N/A	0	0	N/A	N/A	0	0	N/A	N/A	0	0%	N/A	N/A
Enbridge Gas online installation video	0	0	N/A	N/A	0	0	N/A	N/A	0	0	N/A	N/A	0	0%	N/A	N/A
Summer Hill Customer service	0	0	N/A	N/A	0	0	N/A	N/A	0	0	N/A	N/A	0	0%	N/A	N/A
ecobee website	1	100%	3%	100%	2	40%	5%	85%	0	0	N/A	N/A	3	50%	15%	85%
ecobee customer service	0	0%	N/A	N/A	1	20%	1%	72%	0	0	N/A	N/A	1	17%	1%	58%
Google search	0	0%	N/A	N/A	2	40%	5%	85%	0	0	N/A	N/A	2	33%	6%	73%
YouTube videos	1	100%	3%	100%	1	20%	1%	72%	0	0	N/A	N/A	2	33%	6%	73%
Help from a family member, friend or acquaintance	0	0%	N/A	N/A	1	20%	1%	72%	0	0	N/A	N/A	1	17%	1%	58%
Hire a contractor to install	0	0	N/A	N/A	0	0	N/A	N/A	0	0	N/A	N/A	0	0%	N/A	N/A
Other - No	0	0%	N/A	N/A	2	40%	5%	85%	0	0	N/A	N/A	2	33%	6%	73%

Question 22. Are there any resources that would have helped you with installation?

Survey respondents listed the following as resources that would have helped with installation (response counts are included in parentheses):

- Video demos/YouTube (13)
- Professional help or on-call assistance (Ex. technician, electrician) (11)
- Printed instruction booklet (2)
- More furnace brand specifics examples (2)
- Have the instruction be searchable on the internet (2)

And two survey respondents expressed a desire for the device to generally be easier to install.

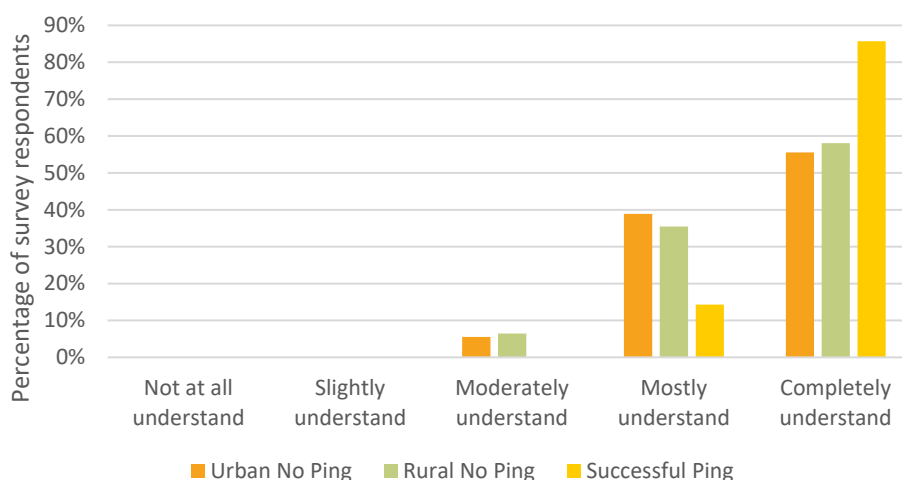
Question 23. On a scale from one to five, with one being do not understand at all, and five being completely understand, how well do you feel you understand the benefits of using a smart thermostat?

Figure 22. Distribution of Responses Associated with Survey Question 23 with Rural vs. Urban Breakdown

All of survey respondents indicated an understanding of the benefits of having a smart thermostat as illustrated in Figure 22.

Table 23. Detailed Results for Questions 23 at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Not at all understand	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0	N/A	N/A
Slightly understand	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0	N/A	N/A
Moderately understand	2	6%	1%	19%	2	7%	1%	21%	0	0%	N/A	N/A	4	5%	2%	12%
Mostly understand	14	39%	23%	57%	11	36%	19%	55%	1	14%	0%	58%	26	35%	26%	45%
Completely understand	20	56%	38%	72%	18	58%	39%	76%	6	86%	42%	100%	44	60%	49%	69%

Question 24. What are the benefits of using a smart thermostat, from your perspective?

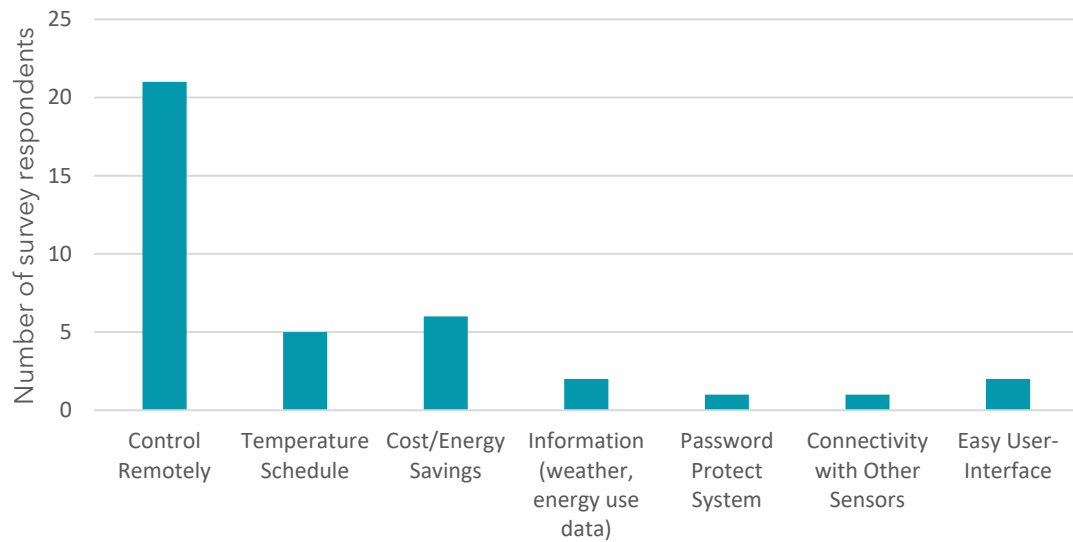


Figure 23. Distribution of Responses Associated with Survey Question 24.

Respondents indicated being able to control the temperature of their home remotely as the leading benefit of using a smart thermostat.

The next seven questions are on a scale from 1-5, with "1" meaning not important at all and "5" meaning extremely important, and relate to how important the factor was in deciding to purchase the ecobee smart thermostat.

Question 25a. How important was reducing household energy use and costs in motivating your decision to purchase the ecobee smart thermostat?

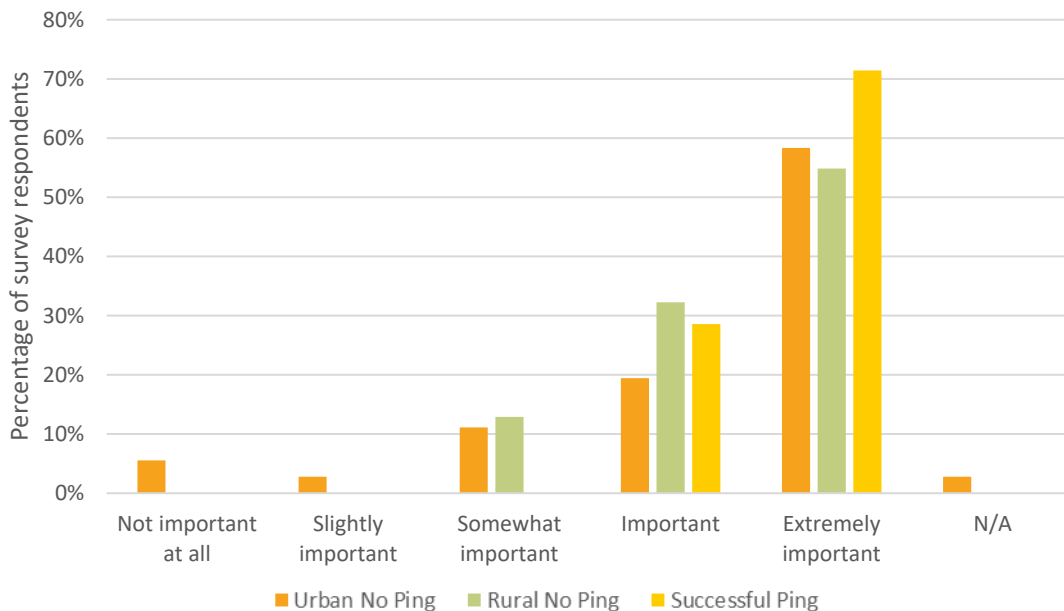
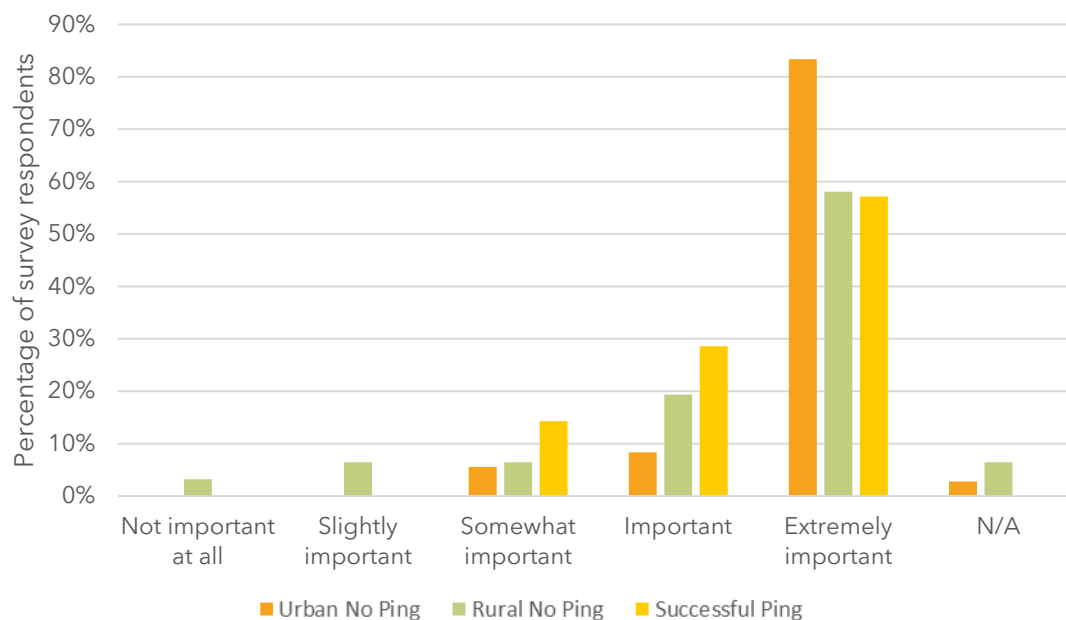


Figure 24. Distribution of Responses Associated with Survey Question 25a with Rural vs. Urban Breakdown

Table 24. Detailed Results for Questions 25a at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	2	6%	1%	19%	0	0%	N/A	N/A	0	0%	N/A	N/A	2	3%	1%	8%
2	1	3%	0%	15%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	1%	0%	6%
3	4	11%	3%	27%	4	13%	4%	30%	0	0%	N/A	N/A	8	11%	6%	19%
4	7	20%	8%	37%	10	32%	17%	51%	2	29%	4%	71%	19	26%	18%	36%
5	21	60%	42%	76%	17	55%	36%	73%	5	71%	29%	96%	43	59%	49%	69%

Question 25b. How important was the ability to control the thermostat remotely in motivating your decision to purchase an ecobee smart thermostat?

**Figure 25. Distribution of Responses Associated with Survey Question 25b with Rural vs. Urban Breakdown**

Generally, respondents indicated the ability to control the thermostat remotely as being an important motivator for their decision to purchase the ecobee device, which supports the open-ended responses given to question 24.

Table 25. Detailed Results for Questions 25b at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	0	0%	N/A	N/A	1	3%	0%	18%	0	0%	N/A	N/A	1	1%	0%	7%
2	0	0%	N/A	N/A	2	7%	1%	23%	0	0%	N/A	N/A	2	3%	1%	9%
3	2	6%	1%	19%	2	7%	1%	23%	1	14%	0%	58%	5	7%	3%	14%
4	3	9%	2%	23%	6	21%	8%	40%	2	29%	4%	71%	11	16%	9%	24%
5	30	86%	70%	95%	18	62%	42%	79%	4	57%	18%	90%	52	73%	63%	82%

Question 25c. How important was having access to detailed energy reports and data on household power use over time in motivating your decision to purchase an ecobee smart thermostat?

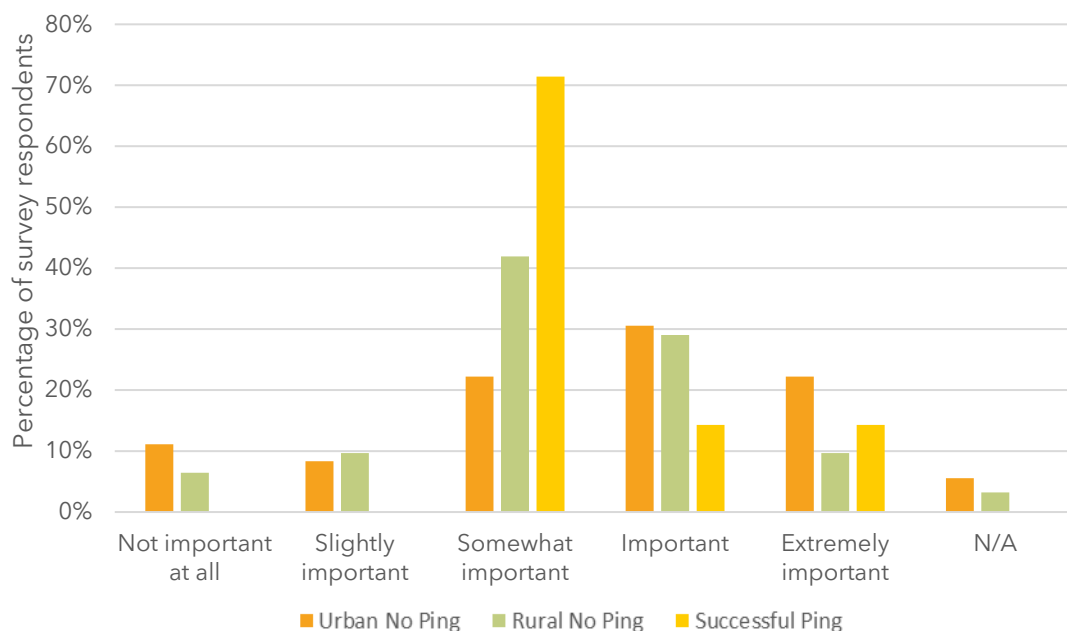


Figure 26. Distribution of Responses Associated with Survey Question 25c with Rural vs. Urban Breakdown

There was a fairly normal distribution in response to the importance of accessing detailed energy reports and associated data, with a slight skew towards being more important than not.

Table 26. Detailed Results for Questions 25c at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	4	12%	3%	28%	2	7%	1%	22%	0	0%	N/A	N/A	6	9%	4%	16%
2	3	9%	2%	24%	3	10%	2%	27%	0	0%	N/A	N/A	6	9%	4%	16%
3	8	24%	11%	41%	13	43%	26%	63%	5	71%	29%	96%	26	37%	27%	47%
4	11	32%	17%	51%	9	30%	15%	49%	1	14%	0%	58%	21	30%	21%	40%
5	8	24%	11%	41%	3	10%	2%	27%	1	14%	0%	58%	12	17%	10%	26%

Question 25d. How important were the advanced scheduling options and occupancy sensors that adapt to your routine in motivating your decision to purchase an ecobee smart thermostat?

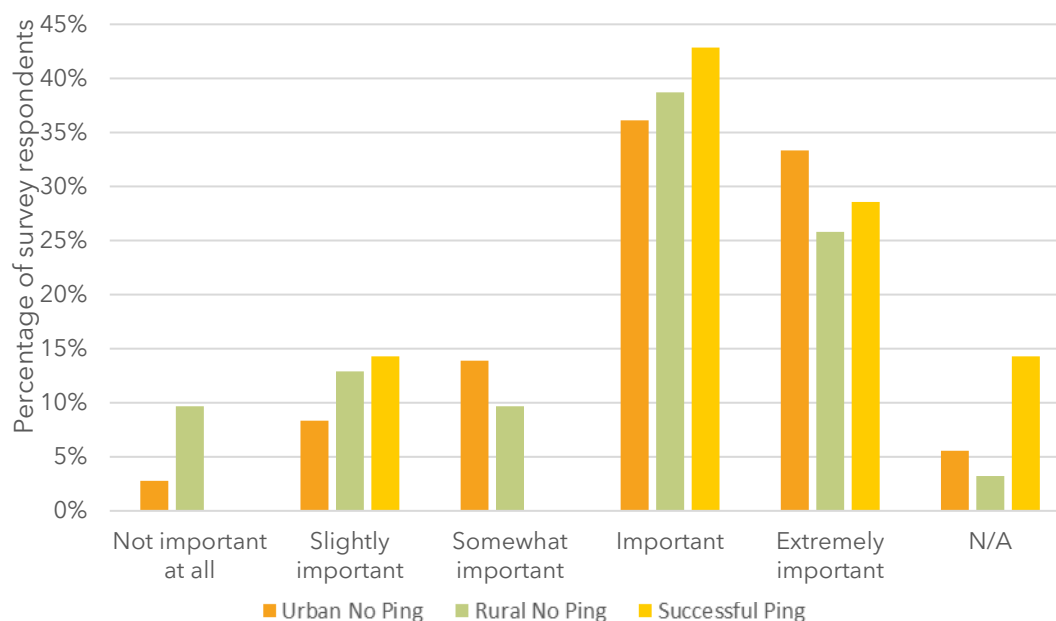


Figure 27. Distribution of Responses Associated with Survey Question 25d with Rural vs. Urban Breakdown

The advanced scheduling options and adaptive occupancy sensors appeared to be an important motivator in most participants decision for purchase the ecobee thermostat.

Table 27. Detailed Results for Questions 25d at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	1	3%	0%	15%	3	10%	2%	27%	0	0%	N/A	N/A	4	6%	2%	13%
2	3	9%	2%	24%	4	13%	4%	31%	1	17%	0%	64%	8	11%	6%	20%
3	5	15%	5%	31%	3	10%	2%	27%	0	0%	N/A	N/A	8	11%	6%	20%
4	13	38%	22%	56%	12	40%	23%	59%	3	50%	12%	88%	28	40%	30%	51%
5	12	35%	20%	54%	8	27%	12%	46%	2	33%	4%	78%	22	31%	22%	42%

Question 25e. How important was being able to connect the smart thermostat to other smart home devices in motivating your decision to purchase an ecobee smart thermostat?

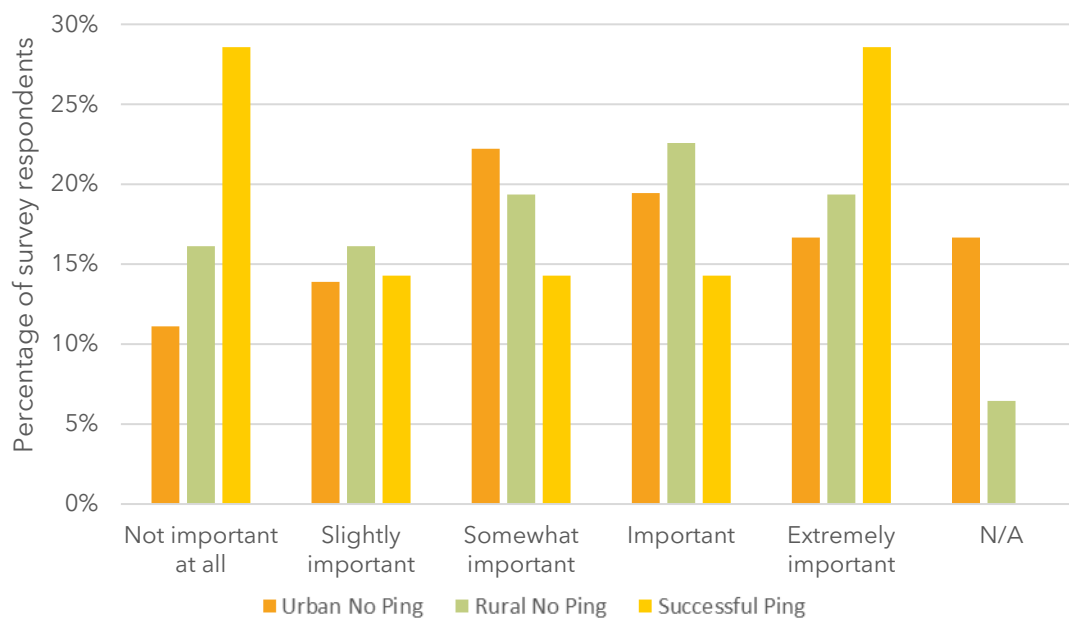


Figure 28. Distribution of Responses Associated with Survey Question 25e with Rural vs. Urban Breakdown

The importance of being able to connect the ecobee device to other smart home systems appears to be mixed, and is slightly skewed towards it contributing to the purchase decision.

Table 28. Detailed Results for Questions 25e at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	4	13%	4%	31%	5	17%	6%	36%	2	29%	4%	71%	11	17%	10%	26%
2	5	17%	6%	35%	5	17%	6%	36%	1	14%	0%	58%	11	17%	10%	26%
3	8	27%	12%	46%	6	21%	8%	40%	1	14%	0%	58%	15	23%	15%	33%
4	7	23%	10%	42%	7	24%	10%	44%	1	14%	0%	58%	15	23%	15%	33%
5	6	20%	8%	39%	6	21%	8%	40%	2	29%	4%	71%	14	21%	13%	31%

Question 25f. How important was reducing household environmental footprint and/or greenhouse gas emissions in motivating your decision to purchase an ecobee smart thermostat?

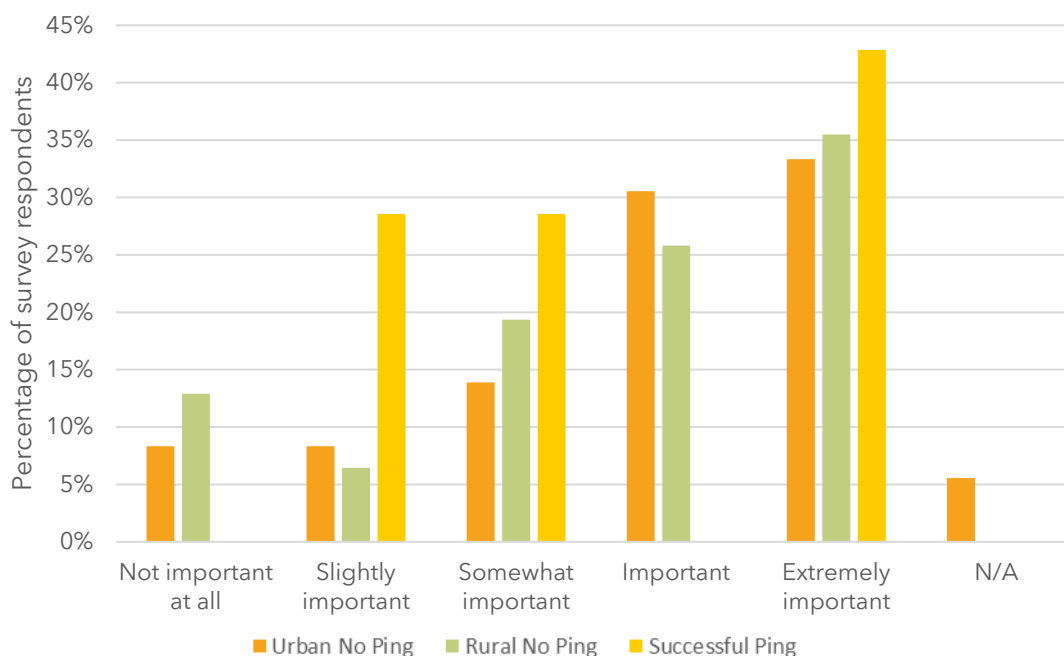


Figure 29. Distribution of Responses Associated with Survey Question 25f with Rural vs. Urban Breakdown

Reducing the household environmental footprint and/or GHG emissions was appeared to be an important consideration for most respondents, with 62% saying it was an important or extremely important factor in their decision.

Table 29. Detailed Results for Questions 25e at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	3	9%	2%	24%	4	13%	4%	30%	0	0%	N/A	N/A	7	10%	5%	18%
2	3	9%	2%	24%	2	7%	1%	21%	2	29%	4%	71%	7	10%	5%	18%
3	5	15%	5%	31%	6	19%	8%	38%	2	29%	4%	71%	13	18%	11%	27%
4	11	32%	17%	51%	8	26%	12%	45%	0	0%	N/A	N/A	19	26%	18%	36%
5	12	35%	20%	54%	11	36%	19%	55%	3	43%	10%	82%	26	36%	27%	46%

Question 25g. How important was your interest in having New Tech in motivating your decision to purchase an ecobee smart thermostat?

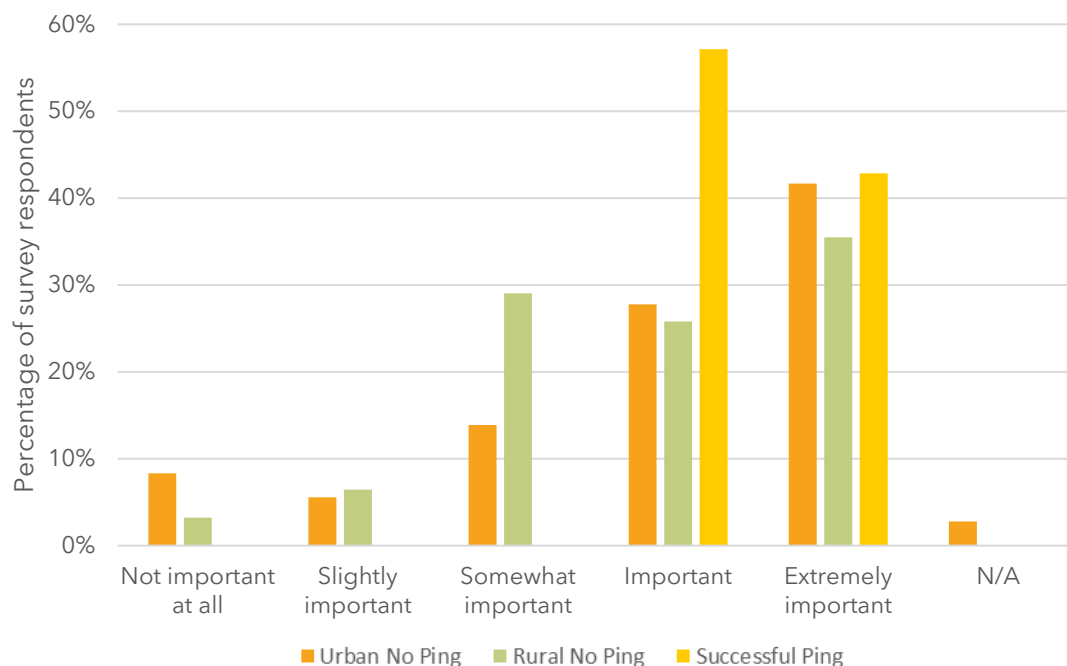


Figure 30. Distribution of Responses Associated with Survey Question 25f with Rural vs. Urban Breakdown

Many respondents noted the importance of having new technology as motivational in their decision to purchase the smart thermostat, with over 50% of respondents noting it was important to extremely important.

Table 30. Detailed Results for Questions 25e at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	3	9%	2%	23%	1	3%	0%	17%	0	0%	N/A	N/A	4	6%	2%	12%
2	2	6%	1%	19%	2	7%	1%	21%	0	0%	N/A	N/A	4	6%	2%	12%
3	5	14%	5%	30%	9	29%	14%	48%	0	0%	N/A	N/A	14	19%	12%	28%
4	10	29%	15%	46%	8	26%	12%	45%	4	57%	18%	90%	22	30%	21%	40%
5	15	43%	26%	61%	11	36%	19%	55%	3	43%	10%	82%	29	40%	30%	50%

The next five questions are on a scale from 1-5, with "1" meaning completely disagree and "5" meaning completely agree, and relate to the respondents' perception of the ecobee device.

Question 26a. Based on your experience, a smart thermostat helps my home save energy.

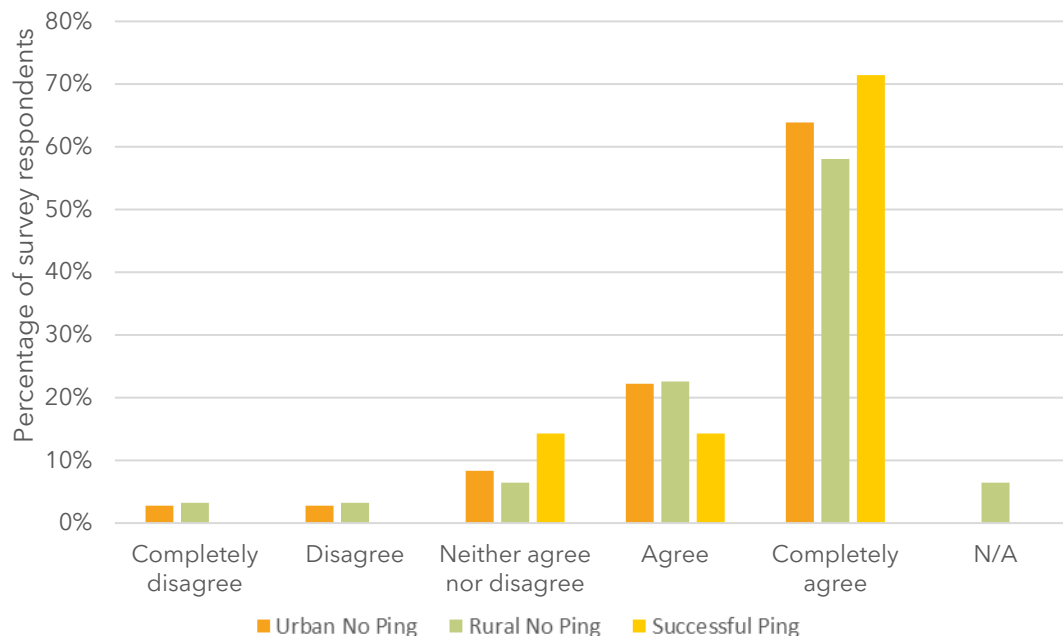


Figure 31. Distribution of Responses Associated with Survey Question 26a with Rural vs. Urban Breakdown

Most respondents agreed that the ecobee device helped them save energy, with 86% weighing their agreement as a 4/5 or 5/5.

Table 31. Detailed Results for Questions 26a at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	1	3%	0%	15%	1	3%	0%	18%	0	0%	N/A	N/A	2	3%	1%	9%
2	1	3%	0%	15%	1	3%	0%	18%	0	0%	N/A	N/A	2	3%	1%	9%
3	3	8%	2%	23%	2	7%	1%	23%	1	14%	0%	58%	6	8%	4%	16%
4	8	22%	10%	39%	7	24%	10%	44%	1	14%	0%	58%	16	22%	15%	32%
5	23	64%	46%	79%	18	62%	42%	79%	5	71%	29%	96%	46	64%	54%	73%

Question 26b. Based on your experience, using a smart thermostat introduces privacy and data security risks.

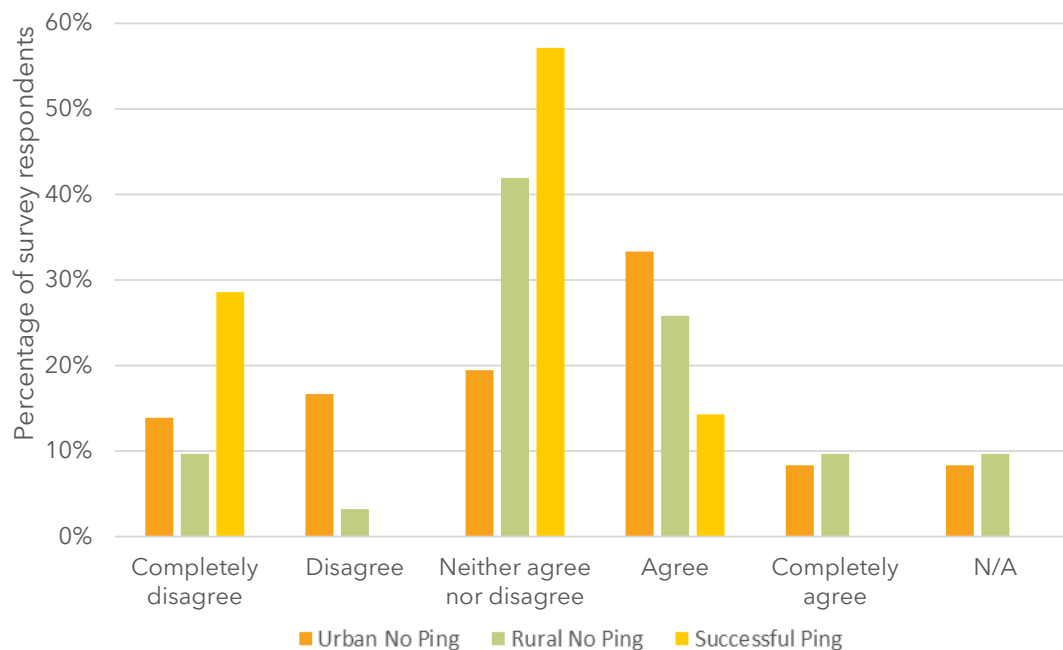


Figure 32. Distribution of Responses Associated with Survey Question 26b with Rural vs. Urban Breakdown

Responses associated with potential privacy concerns varied, with the majority (35%) expressing ambivalence in their agreement.

Table 32. Detailed Results for Questions 26b at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	5	15%	5%	32%	3	11%	2%	28%	2	29%	4%	71%	10	15%	8%	24%
2	6	18%	7%	36%	1	4%	0%	18%	0	0%	N/A	N/A	7	10%	5%	19%
3	7	21%	9%	39%	13	46%	28%	66%	4	57%	18%	90%	24	35%	26%	46%
4	12	36%	20%	55%	8	29%	13%	49%	1	14%	0%	58%	21	31%	22%	41%
5	3	9%	2%	24%	3	11%	2%	28%	0	0%	N/A	N/A	6	9%	4%	17%

Question 26c. Based on your experience, a smart thermostat helps keep my home more comfortable.

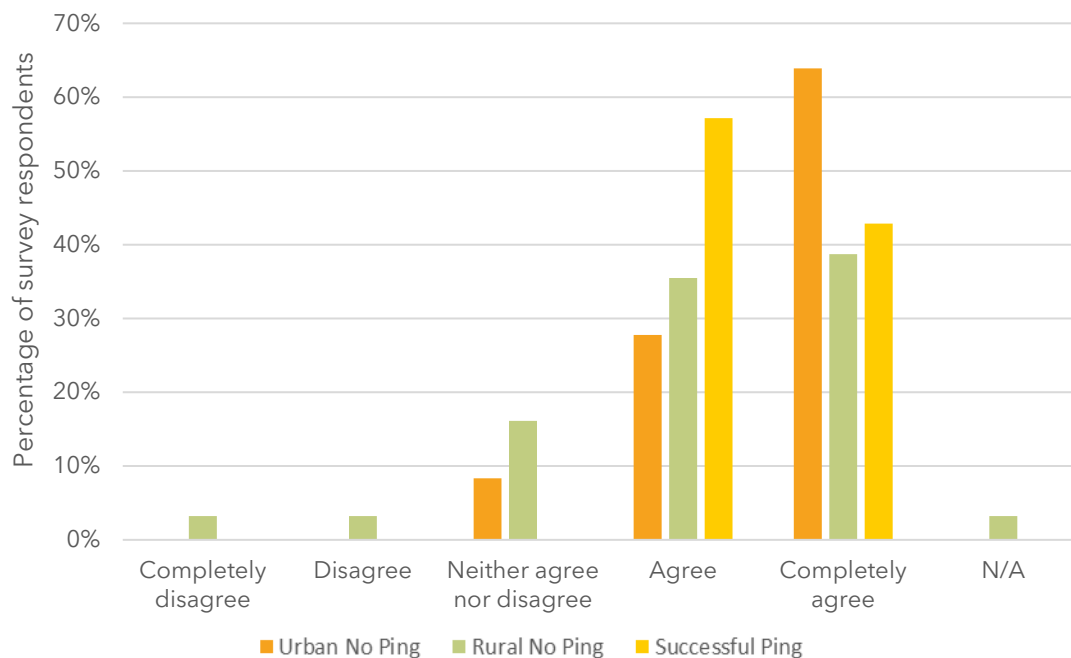


Figure 33. Distribution of Responses Associated with Survey Question 26c with Rural vs. Urban Breakdown

Roughly half (51%) of the survey respondents completely agree that the ecobee smart thermostat helps keep their home comfortable.

Table 33. Detailed Results for Questions 26c at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	0	0%	N/A	N/A	1	3%	0%	17%	0	0%	N/A	N/A	1	1%	0%	6%
2	0	0%	N/A	N/A	1	3%	0%	17%	0	0%	N/A	N/A	1	1%	0%	6%
3	3	8%	2%	23%	5	17%	6%	35%	0	0%	N/A	N/A	8	11%	6%	19%
4	10	28%	14%	45%	11	37%	20%	56%	4	57%	18%	90%	25	34%	25%	44%
5	23	64%	46%	79%	12	40%	23%	59%	3	43%	10%	82%	38	52%	42%	62%

Question 26d. Based on your experience, using a smart thermostat is difficult or complicated.

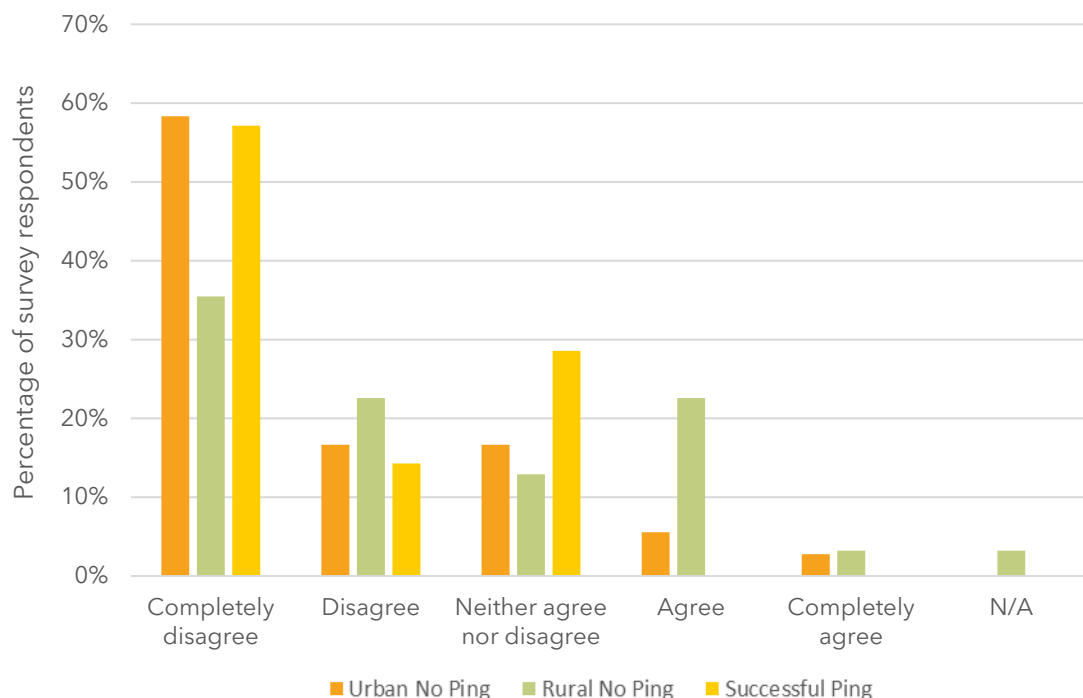


Figure 34. Distribution of Responses Associated with Survey Question 26d with Rural vs. Urban Breakdown

There was a high degree of disagreement with the question statement, indicating customers found operating the smart thermostat was not overly complex or difficult.

Table 34. Detailed Results for Questions 26d at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	21	58%	41%	75%	11	37%	20%	56%	4	57%	18%	90%	36	49%	39%	60%
2	6	17%	6%	33%	7	23%	10%	42%	1	14%	0%	58%	14	19%	12%	28%
3	6	17%	6%	33%	4	13%	4%	31%	2	29%	4%	71%	12	16%	10%	25%
4	2	6%	1%	19%	7	23%	10%	42%	0	0%	N/A	N/A	9	12%	7%	21%
5	1	3%	0%	15%	1	3%	0%	17%	0	0%	N/A	N/A	2	3%	1%	8%

Question 26e. Based on your experience, the benefits of a smart thermostat outweigh the drawbacks

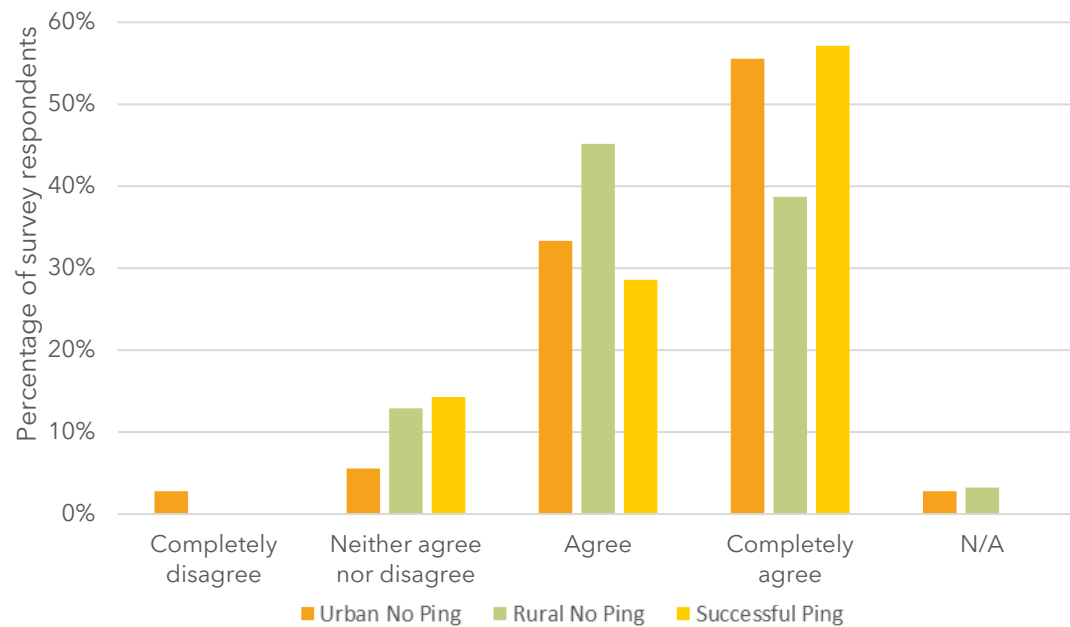


Figure 35. Distribution of Responses Associated with Survey Question 26e with Rural vs. Urban Breakdown

There is general agreement that the benefits of the smart thermostat outweigh the drawbacks.

Table 35. Detailed Results for Questions 26e at 90% Confidence Interval.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	1	3%	0%	15%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	1%	0%	6%
2	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A
3	2	6%	1%	19%	4	13%	4%	31%	1	14%	0%	58%	7	10%	5%	18%
4	12	34%	19%	52%	14	47%	28%	66%	2	29%	4%	71%	28	39%	29%	49%
5	20	57%	39%	74%	12	40%	23%	59%	4	57%	18%	90%	36	50%	40%	60%

Question 27. Is there anything else you would like to share about your experience with the Enbridge Gas Smart Thermostat Rebate program?

Five survey respondents provided the following feedback relating to their experience with Enbridge's Smart Thermostat Rebate program:

- The HVAC contractor hired to install the device did not provide insights into the smart features.
- Customer understands most settings but is not sure how to control the controls that impact the energy and comfortability of the home.
- Unclear how to turn off the motion sensor activation of the display
- I am thankful for the device; it helps me to take actions to save money.
- Customer would have chosen another device instead of ecobee.

4.0 Conclusion

The evaluation of Enbridge Gas Inc.'s Residential Adaptive T-Stat Offer highlights both its successes and areas for potential enhancement. The program is functioning effectively, with high levels of participant satisfaction and positive user experiences. Key findings demonstrate that 87.5% of the sampled "no ping" survey respondents have installed their ecobee device and 95% have successfully connected it to Wi-Fi, suggesting that the current performance metrics may underestimate the program's overall impact. While there is a slight variance in connectivity challenges between urban and rural participants, these differences are not statistically significant.

The study also identified several motivators for participation, including remote control functionality, having the latest technology, energy savings, and greenhouse gas emissions reductions, which reinforces the program's alignment with participant priorities. The ease of installation and application processes further contributed to the program's favorable reception. Additional hypothesized barriers associated with participant comfort/familiarity with technology and Wi-Fi connection/data-privacy do not appear to be substantiated by the survey results, however a separate study of barriers for non-adaptive T-Stat participants could provide valuable insights to help improve uptake of smart thermostats for reluctant customers.

To enhance the program's effectiveness and accessibility for participants, and validate the use of ecobee ping-rates to inform the Adaptive T-Stat Offer adjustment factors, the following recommendations are proposed for Enbridge's consideration:

1. Conduct a comparative study of 2023 and 2024 ecobee ping-rates versus telephone verification surveys across all manufacturers in the offer to validate the use of the ecobee ping-rates to inform the performance adjustment metrics.¹²
2. Provide detailed pre-purchase installation guidance to mitigate customer frustration.
3. Include compatibility information to help participants choose a thermostat suited to their home heating systems.
4. Emphasize the high-speed internet access requirement more prominently during the application process.

These enhancements can support continuous improvement efforts, ensuring the program delivers maximum value to participants while maintaining its positive reputation. By addressing these opportunities, Enbridge can further optimize the Adaptive T-Stat Offer, contributing to its goals of energy efficiency, customer satisfaction, and sustainability.

¹² Given ecobee introduced a new tool through which to track customer Wi-Fi connections, a comparative study could also be useful to instill greater confidence in the accuracy of ping-rate performance data.

Appendix A: Sample & Confidence

This document describes the sampling approach used to survey customers that purchased an ecobee smart thermostat through the Enbridge Adaptive Thermostat Rebate program and presents the resulting precision rates for each question at 90% confidence.

The sample included customers that either did not install or connect the thermostat to internet as well as customers that successfully installed and connected their thermostats. As summarized in Table 1, the populations for the survey included program years 2021 and 2022 for legacy Enbridge Gas Distribution and legacy Union Gas Limited. The population was segmented to enable exploration of potential divergent experiences for customers who reside in urban versus rural areas.

Table 1: Sample Frame Populations

Population	Utility	Year	Urban/Rural	Count
Did not connect to internet (No Ping)	Legacy Enbridge	2021	Urban	530
			Rural	105
		2022	Urban	346
			Rural	132
	Legacy Union	2021	Urban	153
			Rural	97
		2022	Urban	145
			Rural	76
Installed and connected to internet (Successful Ping)	Combined			8,937

The evaluation team conducted a telephone survey of a sample of program participants with the intention of obtaining representation from each of the groups outlined in Table 1. In order to limit the burden this research placed on Enbridge customers the sample frame was limited to 300 participants. As demonstrated in Table 2, the sample of participants completing surveys was sufficient to provided results at 90% confidence with $\pm 10\%$ precision (two-tailed) within the overall participant population and the total population of participants that did not successfully install their thermostats or connect to the internet. The sample provides results at 90% confidence with $\pm 10\%$ precision (one-tailed) within the urban and rural populations respectively.

Table 2: Sample Sizes and Confidence Levels

Sampling Group		Population Count	Sample Count	Margin of error at 90% confidence	
				2-Tailed	1-Tailed
Did not install or connect to internet (No Ping)	Urban	1,174	36	±14%	±7%
	Rural	410	33	±14%	±7%
	Total	1,584	69	±10%	±5%
Installed and connected to internet (Successful Ping)		8,937	7	±31%	±16%
Full Sample		10,521	76	±9%	±5%

The following tables provide detailed counts and frequencies associated with the survey responses, and include the margin of error at the 90% confidence level for survey questions as appropriate. The questions preceding each table are provided in lieu of labels.

Background/Screening

Q1. Did you receive the advance letter from Enbridge Gas notifying you about this survey?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	23	64%	46%	79%	26	79%	61%	91%	6	86%	42%	100%	55	72%	63%	81%
NO ADVANCED LETTER	13	36%	21%	54%	7	21%	9%	39%	1	14%	0%	58%	21	28%	19%	37%

Q2. Our records indicate that your household participated in Enbridge Gas' Smart Thermostat program and received a discount on an ecobee device. Is that correct?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	34	94%	81%	99%	30	94%	79%	99%	7	100%	59%	100%	71	95%	88%	98%
NON-PARTICIPANT	0	0%	N/A	N/A	1	3%	0%	16%	0	N/A	N/A	N/A	1	1%	0%	6%
Don't Know	2	6%	1%	19%	1	3%	0%	16%	0	N/A	N/A	N/A	3	4%	1%	10%

Q3. Is the device installed at your residence?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	32	94%	80%	99%	24	80%	61%	92%	7	100%	59%	100%	63	89%	81%	94%
No	2	6%	1%	20%	6	20%	8%	39%	0	0%	N/A	N/A	8	11%	6%	19%

Q4. ecobee thermostats are square shaped with rounded corners and say “ecobee” in small gray letters at the bottom. Does that description match the thermostat installed in your residence?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	2	100%	16%	100%	0	0%	N/A	N/A	0	0%	N/A	N/A	2	67%	14%	98%
No	0	0%	N/A	N/A	1	100%	3%	100%	0	0%	N/A	N/A	1	33%	2%	87%

Combined response to Q3 & Q4

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	34	94%	84%	99%	24	73%	62%	89%	7	100%	65%	100%	65	88%	80%	94%
No	2	6%	1%	17%	7	23%	11%	38%	0	0%	N/A	N/A	11	12%	7%	20%

Q5. Do you still have the ecobee thermostat you purchased through Enbridge Gas’ Smart Thermostat Rebate Program?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes, I have it, but it's not installed	2	100%	16%	100%	6	86%	42%	100%	0	0%	N/A	N/A	8	89%	57%	99%
No, I no longer have it	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A
Other	0	0%	N/A	N/A	1	14%	0%	58%	0	0%	N/A	N/A	1	11%	1%	43%

Q6. What did you do with the ecobee thermostat you purchased through the Enbridge Gas program?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
I returned it	0	0%	N/A	N/A	1	14%	0%	58%	0	0%	N/A	N/A	1	11%	1%	43%
Other	2	100%	16%	100%	6	86%	42%	100%	0	0%	N/A	N/A	8	89%	57%	99%

Q7. What type of thermostat are you currently using in your home instead of the ecobee?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Another smart thermostat	0	0%	N/A	N/A	1	14%	0%	58%	0	0	N/A	N/A	1	11%	1%	43%
My old thermostat	1	50%	1%	99%	2	29%	4%	71%	0	0	N/A	N/A	3	33%	10%	66%
Other (see bar graph)	1	50%	1%	99%	3	43%	10%	82%	0	0	N/A	N/A	4	44%	17%	75%
Don't Know	0	0%	N/A	N/A	1	14%	0%	58%	0	0	N/A	N/A	1	11%	1%	43%

Device Not In Use

Q8. Was the ecobee thermostat installed at any point?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
We attempted to install the device, but did not get it working	2	100%	16%	100%	4	57%	18%	90%	0	0	N/A	N/A	6	67%	35%	90%
No - It was never installed	0	0%	N/A	N/A	3	43%	10%	82%	0	0	N/A	N/A	3	33%	10%	66%

Q9. How long was the ecobee thermostat installed before it was removed?

Skip logic/confidence calculation as question did not trigger question for any respondents

Q10. Why did you remove the ecobee thermostat? [Do not read responses, probe to code]

Skip logic/confidence calculation as question did not trigger question for any respondents

Q11. Why haven't you installed your ecobee thermostat? [Do not read responses, probe to code]

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
It seems too complicated	0	0%	N/A	N/A	1	33%	1%	91%	0	0%	N/A	N/A	1	33%	2%	87%
Other	0	0%	N/A	N/A	2	67%	9%	99%	0	0%	N/A	N/A	2	67%	14%	98%

Q12. Are you planning to try to install the ecobee smart thermostat in the future?

	No Ping Urban	No Ping Rural	Successful Ping	Total
--	---------------	---------------	-----------------	-------

	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	2	100%	16%	100%	4	57%	18%	90%	0	0%	N/A	N/A	6	67%	35%	90%
No	0	0%	N/A	N/A	3	43%	10%	82%	0	0%	N/A	N/A	3	33%	10%	66%

Q13. Why aren't you planning to install the ecobee smart thermostat?

Wi-Fi Connection Experience

Q14. When your ecobee thermostat was installed, did you connect it to Wi-Fi?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	32	94%	80%	99%	23	96%	79%	100%	7	1	59%	100%	62	95%	89%	99%
No	2	6%	1%	20%	1	4%	0%	21%	0	0	N/A	N/A	3	5%	1%	12%

Q15. How soon after installing it did you connect the thermostat to Wi-Fi?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Within one week	29	91%	75%	98%	20	87%	66%	97%	7	100%	59%	100%	56	90%	82%	96%
Between 1 week and 1 month	1	3%	0%	16%	1	4%	0%	22%	0	0%	N/A	N/A	2	3%	1%	10%
Between 1 - 3 months	1	3%	0%	16%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	2%	0%	7%
Between 3 - 6 months	1	3%	0%	16%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	2%	0%	7%
More than 2 yrs	0	0%	N/A	N/A	1	4%	0%	22%	0	0%	N/A	N/A	1	2%	0%	7%
Don't Know	0	0%	N/A	N/A	1	4%	0%	22%	0	0%	N/A	N/A	1	2%	0%	7%

Q16. Were there any issues with connecting the device to Wi-Fi?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0	N/A	N/A
No	32	100%	89%	100%	22	96%	78%	100%	7	100%	59%	100%	61	98%	93%	100%
Don't Know	0	0%	N/A	N/A	1	4%	0%	22%	0	0%	N/A	N/A	1	2%	0%	7%

Q17. Is your ecobee thermostat currently connected to Wi-Fi?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Yes	31	97%	84%	100%	20	87%	66%	97%	7	100%	59%	100%	58	94%	86%	98%
No	1	3%	0%	16%	1	4%	0%	22%	0	0%	N/A	N/A	2	3%	1%	10%
Don't Know	0	0%	N/A	N/A	2	9%	1%	28%	0	0%	N/A	N/A	2	3%	1%	10%

Q18. Why didn't you connect your ecobee thermostat to Wi-Fi?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Not interested in using Wi-Fi connected features	0	0%	N/A	N/A	1	100%	3%	100%	0	0%	N/A	N/A	1	33%	2%	87%
Other	2	100%	16%	100%	0	0%	N/A	N/A	0	0%	N/A	N/A	2	67%	14%	98%

2.5 Program Experience

Q19.a How difficult or easy was it to apply for the discount through the Enbridge Gas portal?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A
2	1	3%	0%	15%	0	0%	N/A	N/A	1	14%	0%	58%	2	3%	1%	9%
3	2	6%	1%	19%	2	7%	1%	23%	0	0%	N/A	N/A	4	6%	2%	12%
4	5	14%	5%	30%	8	28%	13%	47%	1	14%	0%	58%	14	20%	12%	29%
5	27	77%	60%	90%	19	66%	46%	82%	5	71%	29%	96%	51	72%	62%	81%

Q19.b How difficult or easy was it to purchase an ecobee thermostat online?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0	N/A	N/A
2	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0	N/A	N/A
3	1	3%	0%	15%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	1%	0%	7%
4	4	12%	3%	28%	5	18%	6%	37%	0	0%	N/A	N/A	9	13%	7%	22%
5	29	85%	69%	95%	23	82%	63%	94%	7	100%	59%	100%	59	86%	77%	92%

Q19.c How difficult or easy was it to install the device once you received it?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	2	6%	1%	21%	4	18%	5%	40%	0	0%	N/A	N/A	6	10%	5%	19%
2	7	22%	9%	40%	2	9%	1%	29%	1	20%	1%	72%	10	17%	10%	27%
3	8	25%	12%	43%	5	23%	8%	45%	2	40%	5%	85%	15	25%	16%	36%
4	6	19%	7%	36%	5	23%	8%	45%	2	40%	5%	85%	13	22%	14%	33%
5	9	28%	14%	47%	6	27%	11%	50%	0	0%	N/A	N/A	15	25%	16%	36%

Q19.d How difficult or easy was it to connect the device to Wi-Fi?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	1	3%	0%	16%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	2%	0%	8%
2	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A
3	1	3%	0%	16%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	2%	0%	8%
4	4	12%	3%	28%	5	23%	8%	45%	1	17%	0%	64%	10	16%	9%	26%
5	27	82%	65%	93%	17	77%	55%	92%	5	83%	36%	100%	49	80%	70%	88%

Q20. On a scale from one to five, with one being not clear at all to five being extremely clear, how clear were the installation instructions provided with the ecobee thermostat?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Not clear at all	1	3%	0%	15%	1	3%	0%	17%	0	0%	N/A	N/A	2	3%	1%	8%
Slightly clear	1	3%	0%	15%	0	0%	N/A	N/A	1	14%	0%	58%	2	3%	1%	8%
Moderately clear	5	14%	5%	30%	4	13%	4%	30%	1	14%	0%	58%	10	14%	8%	22%
Very clear	11	31%	16%	48%	14	45%	27%	64%	2	29%	4%	71%	27	37%	27%	47%
Extremely clear	14	39%	23%	57%	6	19%	8%	38%	2	29%	4%	71%	22	30%	21%	40%
Don't Know	4	11%	3%	26%	6	19%	8%	38%	1	14%	0%	58%	11	15%	9%	23%

Q21. Did you consult any of the following resources for help with installation?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Instructions from Enbridge Gas' website	0	0	N/A	N/A	0	0	N/A	N/A	0	0	N/A	N/A	0	0%	N/A	N/A

Enbridge Gas online installation video	0	0	N/A	N/A	0	0	N/A	N/A	0	0	N/A	N/A	0	0%	N/A	N/A
Summer Hill Customer service	0	0	N/A	N/A	0	0	N/A	N/A	0	0	N/A	N/A	0	0%	N/A	N/A
ecobee website	1	100%	3%	100%	2	40%	5%	85%	0	0	N/A	N/A	3	50%	15%	85%
ecobee customer service	0	0%	N/A	N/A	1	20%	1%	72%	0	0	N/A	N/A	1	17%	1%	58%
Google search	0	0%	N/A	N/A	2	40%	5%	85%	0	0	N/A	N/A	2	33%	6%	73%
YouTube videos	1	100%	3%	100%	1	20%	1%	72%	0	0	N/A	N/A	2	33%	6%	73%
Help from a family member, friend or acquaintance	0	0%	N/A	N/A	1	20%	1%	72%	0	0	N/A	N/A	1	17%	1%	58%
Hire a contractor to install	0	0	N/A	N/A	0	0	N/A	N/A	0	0	N/A	N/A	0	0%	N/A	N/A
Other -	0	0%	N/A	N/A	2	40%	5%	85%	0	0	N/A	N/A	2	33%	6%	73%

Q22. Are there any resources that would have helped you with installation?

Skip logic/confidence calculation as question did not trigger question for any respondents

Awareness and Motivation

Q23. On a scale from one to five, with one being do not understand at all, and five being completely understand to how well do you feel you understand the benefits of using a smart thermostat?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
Not at all understand	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0	N/A	N/A
Slightly understand	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0	N/A	N/A
Moderately understand	2	6%	1%	19%	2	7%	1%	21%	0	0%	N/A	N/A	4	5%	2%	12%
Mostly understand	14	39%	23%	57%	11	36%	19%	55%	1	14%	0%	58%	26	35%	26%	45%
Completely understand	20	56%	38%	72%	18	58%	39%	76%	6	86%	42%	100%	44	60%	49%	69%

Q24. What are the benefits of using a smart thermostat, from your perspective?

Skip logic/confidence calculation as question did not trigger question for any respondents

Q25.a How important was reducing household energy use and costs in motivating your decision to purchase the ecobee smart thermostat?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	2	6%	1%	19%	0	0%	N/A	N/A	0	0%	N/A	N/A	2	3%	1%	8%
2	1	3%	0%	15%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	1%	0%	6%
3	4	11%	3%	27%	4	13%	4%	30%	0	0%	N/A	N/A	8	11%	6%	19%
4	7	20%	8%	37%	10	32%	17%	51%	2	29%	4%	71%	9	26%	18%	36%
5	21	60%	42%	76%	7	55%	36%	73%	5	71%	29%	96%	43	59%	49%	69%

Q25b. How important was the ability to control the thermostat remotely in motivating your decision to purchase an ecobee smart thermostat?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	0	0%	N/A	N/A	1	3%	0%	18%	0	0%	N/A	N/A	1	1%	0%	7%
2	0	0%	N/A	N/A	2	7%	1%	23%	0	0%	N/A	N/A	2	3%	1%	9%
3	2	6%	1%	19%	2	7%	1%	23%	1	14%	0%	58%	5	7%	3%	14%
4	3	9%	2%	23%	6	21%	8%	40%	2	29%	4%	71%	11	16%	9%	24%
5	30	86%	70%	95%	18	62%	42%	79%	4	57%	18%	90%	52	73%	63%	82%

Q25c. How important was having access to detailed energy reports and data on household power use over time in motivating your decision to purchase an ecobee smart thermostat?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	4	12%	3%	28%	2	7%	1%	22%	0	0%	N/A	N/A	6	9%	4%	16%
2	3	9%	2%	24%	3	10%	2%	27%	0	0%	N/A	N/A	6	9%	4%	16%
3	8	24%	11%	41%	1	43%	26%	63%	5	71%	29%	96%	26	37%	27%	47%
4	1	32%	17%	51%	9	30%	15%	49%	1	14%	0%	58%	2	30%	21%	40%
5	8	24%	11%	41%	3	10%	2%	27%	1	14%	0%	58%	1	17%	10%	26%

Q25d. How important were the Advanced scheduling options and occupancy sensors that adapt to your routine in motivating your decision to purchase an ecobee smart thermostat?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	1	3%	0%	15%	3	10%	2%	27%	0	0%	N/A	N/A	4	6%	2%	13%

						%										
2	3	9%	2%	24%	4	13%	4%	31%	1	17%	0%	64%	8	11%	6%	20%
3	5	15%	5%	31%	3	10%	2%	27%	0	0%	N/A	N/A	8	11%	6%	20%
4	1	38%	22%	56%	1	40%	23%	59%	3	50%	12%	88%	2	40%	30%	51%
5	1	35%	20%	54%	2	27%	12%	46%	2	33%	4%	78%	2	31%	22%	42%

Q25e. How important was being able to connect the smart thermostat to other smart home devices in motivating your decision to purchase an ecobee smart thermostat?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	4	13%	4%	31%	5	17%	6%	36%	2	29%	4%	71%	1	17%	10%	26%
2	5	17%	6%	35%	5	17%	6%	36%	1	14%	0%	58%	1	17%	10%	26%
3	8	27%	12%	46%	6	21%	8%	40%	1	14%	0%	58%	5	23%	15%	33%
4	7	23%	10%	42%	7	24%	10%	44%	1	14%	0%	58%	5	23%	15%	33%
5	6	20%	8%	39%	6	21%	8%	40%	2	29%	4%	71%	4	21%	13%	31%

Q25f. How important was reducing household environmental footprint and/or greenhouse gas emissions in motivating your decision to purchase an ecobee smart thermostat?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	3	9%	2%	24%	4	13%	4%	30%	0	0%	N/A	N/A	7	10%	5%	18%
2	3	9%	2%	24%	2	7%	1%	21%	2	29%	4%	71%	7	10%	5%	18%
3	5	15%	5%	31%	6	19%	8%	38%	2	29%	4%	71%	13	18%	11%	27%
4	11	32%	17%	51%	8	26%	12%	45%	0	0%	N/A	N/A	19	26%	18%	36%
5	12	35%	20%	54%	11	36%	19%	55%	3	43%	10%	82%	26	36%	27%	46%

Q25g. How important was your interest in having New Tech in motivating your decision to purchase an ecobee smart thermostat?

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	3	9%	2%	23%	1	3%	0%	17%	0	0%	N/A	N/A	4	6%	2%	12%
2	2	6%	1%	19%	2	7%	1%	21%	0	0%	N/A	N/A	4	6%	2%	12%
3	5	14%	5%	30%	9	29%	14%	48%	0	0%	N/A	N/A	14	19%	12%	28%
4	10	29%	15%	46%	8	26%	12%	45%	4	57%	18%	90%	22	30%	21%	40%
5	15	43%	26%	61%	11	36%	19%	55%	3	43%	10%	82%	29	40%	30%	50%

Q26.a Based on your experience, a smart thermostat helps my home save energy.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	1	3%	0%	15%	1	3%	0%	18%	0	0%	N/A	N/A	2	3%	1%	9%
2	1	3%	0%	15%	1	3%	0%	18%	0	0%	N/A	N/A	2	3%	1%	9%
3	3	8%	2%	23%	2	7%	1%	23%	1	14%	0%	58%	6	8%	4%	16%
4	8	22%	10%	39%	7	24%	10%	44%	1	14%	0%	58%	16	22%	15%	32%
5	23	64%	46%	79%	18	62%	42%	79%	5	71%	29%	96%	46	64%	54%	73%

Q26.b Based on your experience, using a smart thermostat introduces privacy and data security risks.

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	5	15%	5%	32%	3	11%	2%	28%	2	29%	4%	71%	10	15%	8%	24%
2	6	18%	7%	36%	1	4%	0%	18%	0	0%	N/A	N/A	7	10%	5%	19%
3	7	21%	9%	39%	13	46%	28%	66%	4	57%	18%	90%	24	35%	26%	46%
4	12	36%	20%	55%	8	29%	13%	49%	1	14%	0%	58%	21	31%	22%	41%
5	3	9%	2%	24%	3	11%	2%	28%	0	0%	N/A	N/A	6	9%	4%	17%

Q26.c Based on your experience, a smart thermostat helps keep my home more comfortable

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	0	0%	N/A	N/A	1	3%	0%	17%	0	0%	N/A	N/A	1	1%	0%	6%
2	0	0%	N/A	N/A	1	3%	0%	17%	0	0%	N/A	N/A	1	1%	0%	6%
3	3	8%	2%	23%	5	17%	6%	35%	0	0%	N/A	N/A	8	11%	6%	19%
4	10	28%	14%	45%	11	37%	20%	56%	4	57%	18%	90%	25	34%	25%	44%
5	23	64%	46%	79%	12	40%	23%	59%	3	43%	10%	82%	38	52%	42%	62%

Q26.d Based on your experience, using a smart thermostat is difficult or complicated

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	21	58%	41%	75%	11	37%	20%	56%	4	57%	18%	90%	36	49%	39%	60%
2	6	17%	6%	33%	7	23%	10%	42%	1	14%	0%	58%	14	19%	12%	28%
3	6	17%	6%	33%	4	13%	4%	31%	2	29%	4%	71%	12	16%	10%	25%
4	2	6%	1%	19%	7	23%	10%	42%	0	0%	N/A	N/A	9	12%	7%	21%
5	1	3%	0%	15%	1	3%	0%	17%	0	0%	N/A	N/A	2	3%	1%	8%

Q26.e Based on your experience, the benefits of a smart thermostat outweigh the drawbacks

	No Ping Urban				No Ping Rural				Successful Ping				Total			
	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI	#	%	Lower 90% CI	Upper 90% CI
1	1	3%	0%	15%	0	0%	N/A	N/A	0	0%	N/A	N/A	1	1%	0%	6%
2	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A	0	0%	N/A	N/A
3	2	6%	1%	19%	4	13%	4%	31%	1	14%	0%	58%	7	10%	5%	18%
4	12	34%	19%	52%	14	47%	28%	66%	2	29%	4%	71%	28	39%	29%	49%
5	20	57%	39%	74%	12	40%	23%	59%	4	57%	18%	90%	36	50%	40%	60%

Q27. Is there anything else you would like to share about your experience with the Enbridge Gas Smart Thermostat Rebate program?

Skip logic/confidence calculation as question did not trigger question for any respondents

Appendix B: Participant Survey

This document presents the survey instrument for past participants in Enbridge Gas' Residential Adaptive Thermostat Rebate offer who had purchased a thermostat and successfully installed and Wi-Fi connected it, or did not install/connect it to Wi-Fi. As summarized in Table 1, this survey was administered to past program participants as a phone survey.

Table 3: Data Collection Activity Detail

Element	Value
Data Collection Type	Phone survey
Target Population	Customers who purchased an ecobee.com thermostat using an Enbridge Gas Instant Rebate, including those who successfully installed and Wi-fi connected the device, did not install it, and/or did not connect it to Wi-Fi
Sampling Approach	Random, for identified sampling cohorts segmented by geography (Urban/Rural). Weight of final sample based on participant population by utility (Enbridge Gas and Union Gas) and year (2021 and 2022).

The survey is intended to provide insights and inform recommendations to support continuous improvement relating to Enbridge Gas' Residential Adaptive Thermostat Rebate offer installation and connection rates. It will also explore participant motivations, perceived barriers, and rationale associated with their level of installation and Wi-Fi connection of the device.

Table 2. Research question themes.

Research Questions	Associated Survey Items
What are the motivations, perceived barriers, and rationale for participants who received the smart thermostat but did not install it?	Q6, Q8, Q10, Q11, Q13
What are the motivations, perceived barriers, and rationale for participants who received and installed the smart thermostat, but did not connect it to Wi-Fi?	Q14, Q15, Q16, Q17, Q18
What are the motivations, perceived barriers, and rationale for participants who received, installed, and connected their ecobee device to Wi-Fi?	Q2, Q3, Q14, Q15, Q16, Q17, Q18,

What are the barriers to full participation?	Q19, Q20, Q21, Q22, Q23, Q24, Q25, Q26, Q27,
--	--

1.0 Survey Instrument

2.6 Introduction

Hello XX, may I please speak with YY?

Hello YY, my name is ZZ, and I am calling on behalf of the SeeLine Group to ask you some questions about Enbridge Gas' Smart Thermostat Instant Rebate program. You should have received a letter notifying you of this call and outlining the reason for the survey. Enbridge is offering a \$25 grocery gift card for participating in the survey for one of the following: Farm Boy, Food Basics, Metro, No Frills, or Sobeys. I will ask you your preferred grocer when we are finished.

[INTERVIEWER NOTE: If customer asks who the SeeLine Group is:

The SeeLine Group is a consulting firm that specializes in sustainability and energy conservation program design, implementation, and evaluation. Enbridge has hired the SeeLine Group to evaluate their Smart Thermostat Rebate program.]

[INTERVIEWER NOTE: ONLY OFFER IF RESPONDENT IS SKEPTICAL:

If you have any questions about this research effort, please contact Enbridge Gas' Customer Call Centre at: 1-877-362-7434.]

[Intro Setup Questions]

Are you the person in your household that would be familiar with your experience applying for the Smart Thermostat Instant Rebate, purchasing the thermostat, and installing it?

- Yes [If Yes → [Q3](#)]
- No [if No → ASK TO SPEAK WITH THE PERSON FAMILIAR WITH THE PROGRAM AND RESTART SURVEY INTRODUCTION.

IF THE PERSON FAMILIAR IS NOT HOME → CODE AS BUSY / CALL BACK LATER

IF THE PERSON FAMILIAR IS NOT INTERESTED IN PARTICIPATING IN THE SURVEY → CODE DECLINED / NOT INTERESTED

NOTE: IF CUSTOMER ANSWERS "NO" OR IS "NOT INTERESTED" IN PARTICIPATING IN THE SURVEY AND ASKS ABOUT THE GIFT CARD,

Remind them that the gift card is being offered for customers that complete the survey and ask them if they would like to complete the survey.

If yes → go to next question.

If no → Code as DECLINED / NOT INTERSTED

If the customer is upset and wants/asks for a gift card → go to
TERMINATION MESSAGE / Q28]

[IF NO ONE CAN SPEAK TO THE PROGRAM - TERMINATION MESSAGE]:

Thank you for your interest in this research, unfortunately, we need to hear from people who participated in, and are able to speak to their experience in, the Enbridge Gas Smart Thermostat Discount Program. **[Go to Q28 - gift card/which grocer]**

2.7

2.8 Background/Screening

This survey should take approximately 10 minutes to complete and we thank you in advance for your participation.

Q1. Did you receive the advance letter from Enbridge Gas notifying you about this survey?

a. Yes [IF YES → Q2]

b. No [IF NO → CODE AS "NO ADVANCED LETTER AND TELL THEM]:

An Enbridge Gas employee will be contacting you by phone to confirm your address for the gift card [and go to → go to Q2]

[The following note is only to be used if the customer wonders why Enbridge will call them/has concerns:

It appears your address may be inconsistent with Enbridge's records and some from the Smart Thermostat Instant Rebate program will follow up to ensure you receive the gift card. If you have any questions or concerns, please feel free to call Enbridge's Customer Call Centre at 1-877-362-7434.

Q2. Our records indicate that your household participated in Enbridge Gas' Smart Thermostat program and received a discount on an ecobee device. Is that correct?

[SELECT ONE]

c. Yes, that is correct

d. No, our household did not apply for a discount on an ecobee smart thermostat
[à CODE AS "NON-PARTICIPANT" AND → GO TO Q28 TERMINATION MESSAGE]

97. Don't know [IF Don't Know → Q4]

Q3. Is the device installed at your residence?

[SELECT ONE]

a. Yes

[IF Yes → go to Q14]

b. No

[IF no → go to [Q5](#)]

97. Don't know

[IF don't know → go to [Q4](#)]

[Q4](#). ecobee thermostats are square shaped with rounded corners and say "ecobee" in small gray letters at the bottom. Does that description match the thermostat installed in your residence? [*If needed:*] I can wait if you need to go check.

[SELECT ONE]

a. Yes

[IF Yes → go to Q14]

b. No

[IF No → go to Q5]

97. Don't know / Not able to able to check

[IF Don't know / can't check → GO TO Q28 TERMINATION MESSAGE]

Q5. Do you still have the ecobee thermostat you purchased through Enbridge Gas' Smart Thermostat Rebate Program? [*Do not read responses, probe to code*]

[SELECT ONE]

a. Yes, I have it and it is installed

[IF Yes, installed → go to Q14]

b. Yes, I have it, but it is not installed

[IF Yes, has it but not installed → go to Q6]

c. No, I no longer have it

[IF customer No longer has thermostat → Go to Q6]

96. Other

[IF Other → Go to Q6]

Q6. What did you do with the ecobee thermostat you purchased through the Enbridge Gas program? [**Do not read responses, probe to code**]

[SELECT ONE]

- a. I threw it away or recycled it
- b. I sold it
- c. I gifted it to someone
- d. I returned it
- e. I lost it
- f. I installed it at a different property

96. Other, please specify: [OPEN-ENDED RESPONSE - IF INSTALLED AT A DIFFERENT PROPERTY, PLEASE NOTE WHERE (eg, Cottage or Rental property)]

Q7. What type of thermostat are you currently using in your home instead of the ecobee?

[SELECT ONE]

- a. Another smart thermostat purchased with a discount from Enbridge Gas
 - b. Another smart thermostat purchased without a discount
 - c. My old thermostat
 - d. A new thermostat that does not have internet connected capabilities
 - e. Other, please specify: [OPEN-ENDED RESPONSE]
97. Don't know

2.9 Devices Not In Use

[IF Q5=b, c or 96 (device is not installed)]

Q8. Was the ecobee thermostat installed at any point?

[SELECT ONE]

- a. Yes - the device was installed and working [*If needed: Meaning it maintained the set temperature.*]

[IF Yes → go to Q9]

- b. We attempted to install the device, but did not get it working

[If b, attempted to install → go to Q12]

c. No - It was never installed

[IF No, device never installed → go to Q11)

[NOTE - MULTIPLE CONTINGENT 'NEXT' Qs ASSOCIATED WITH ANSWER TO Q8]

Q9. How long was the ecobee thermostat installed before it was removed?

[SELECT ONE -- the closest option to customer's response]

- a. Less than one week
- b. Between one week and one month
- c. Between one month and six months
- d. Between six months and one year
- e. Between one and two years
- f. More than two years
- 97. Don't know

Q10. Why did you remove the ecobee thermostat? [Do not read responses, probe to code - SELECT MULTIPLE]

- a. It did not work properly
- b. It was difficult to use
- c. I did not know how to use it
- d. Privacy and security concerns with data
- e. No longer interested in using a smart thermostat
- f. Wanted a different smart thermostat
- g. HVAC contractor replaced it when installing new equipment
- h. It was missing a part / the "C-Wire"
- i. Other, please specify: [OPEN-ENDED RESPONSE]
- 97. Don't know

[IF Q8 = c. Device was never installed]

Q11. Why haven't you installed your ecobee thermostat?

[Do not read responses, probe to code]

[MULTIPLE RESPONSE]

- a. Have not had the time
- b. It seems too complicated
- c. The C-wire part was missing
- d. I don't know how to install it
- e. Privacy and security concerns with data
- f. Does not seem compatible with my heating and cooling system
- g. No longer interested in using a smart thermostat
- h. Decided to install a different smart thermostat

96. Other, please specify: [OPEN-ENDED RESPONSE –
PLEASE NOTE ANY MENTION OF "C-WIRE" OR PERCEIVED MISSING PART]

97. Don't know

[IF Q11 = any answer – go to Q12]

Q12. Are you planning to try to install the ecobee smart thermostat in the future?

[SELECT ONE]

a Yes

[IF Yes, → go to Q19]

b No

[IF no, → go to Q13]

97. Don't know

Q13. Why aren't you planning to install the ecobee smart thermostat?

a. [OPEN-ENDED RESPONSE]

[→ Go to Q19]

Wi-Fi Connection Experience

[IF Q4 = a (Yes, device is installed), or Q4 = a (yes, the device was installed at some point) → Go to Q14]

Q14. When your ecobee thermostat was installed, did you connect it to Wi-Fi?

[SELECT ONE - note there are 5 options: a., b., 97., 98., and 99.]

a. Yes

[IF Yes, → go to Q15]

b. No

[If No → go to Q18]

97. Don't know [→ pause to allow the customer to check to see if their ecobee device is connected to WiFi. **Provide guidance if needed:**

On ecobee device, go to Menu > General > Settings > WiFi, and make sure the WiFi radio button is enabled.

If this guidance changed the person's response, please choose 98 or 99 as appropriate.]

98. Didn't know at first, but after guidance Yes

[→ Q15]

99. Didn't know at first, but after guidance No

[→ Q18]

Q15. How soon after installing it did you connect the thermostat to Wi-Fi?

[SELECT ONE]

a. Within one week

b. Between one week and one month

c. Between one month and three months

d. Between three months and six months

e. Between six months and one year

f. Between one and two years

g. More than two years

97. Don't know

[ALL ANSWERS → Q16]

Q16. Were there any issues with connecting the device to Wi-Fi?

[SELECT ONE]

- a. Yes, please specify: [OPEN-ENDED RESPONSE]
- b. No
- 97. Don't know

[ALL ANSWERS, → go to Q17]

Q17. Is your ecobee thermostat currently connected to Wi-Fi?

[SELECT ONE]

- a. Yes

If Q17 = yes, go to Q19

- b. No
- 97. Don't know

[If Q14=b/NO → go to Q18]

Q18. Why didn't you connect your ecobee thermostat to Wi-Fi?

[MULTIPLE RESPONSE, RANDOMIZE ORDER OF OPTIONS A-G, SELECT ALL THAT APPLY]

- a. Do not have Wi-Fi at home
- b. Have not had the time
- c. It was too complicated
- d. Tried to connect it to Wi-Fi but it did not work
- e. Did not understand instructions with device
- f. Privacy and security concerns with data
- g. Not interested in using Wi-Fi connected features (like remote control of thermostat)

96. Other, please specify: [OPEN-ENDED RESPONSE]

97. Don't know

Program Experience

[ASK ALL]

Q19. The following **four** questions relate to the level of difficulty or ease associated with the purchase and installation of the ecobee thermostat on a scale of one-five, with one being extremely difficult and five being extremely easy.

[Enter response 1-5, Enter NA if not applicable (e.g., the person did not do this) - Description of scale:

1 = Extremely Difficult

2 = Somewhat difficult

3 = Neither Easy nor Difficult

4 = Somewhat easy

5 = Extremely easy

NA = Not applicable/did not do this

a. How difficult or easy was it to apply for the discount through the Enbridge Gas portal?

[INPUT answer 1-5 or NA]

b. How difficult or easy was it to purchase an ecobee thermostat online?

[INPUT answer 1-5 or NA]

c. How difficult or easy was it to install the device once you received it?

[INPUT answer 1-5 or NA]

d. How difficult or easy was it to connect the device to Wi-Fi?

[INPUT answer 1-5 or NA]

Q20. On a scale from one to five, with one being not clear at all to five being extremely clear, how clear were the installation instructions provided with the ecobee thermostat?

[SELECT ONE]

1. Not clear at all

2. Slightly clear

3. Moderately clear

4. Very clear

5. Extremely clear

97. Don't know

[ASK Q21 ONLY IF:

Q8 = b, attempted to install but couldn't get it working, or

Q10 = a, b, or c, installing the device was difficult/too complicated, or

Q11 = b, installation of ecobee thermostat or connecting to internet seems/is complicated
OR tried installation but did not get device working]

Q21. Did you consult any of the following resources for help with installation?

[MULTIPLE RESPONSE]

- a. Instructions from Enbridge Gas' website?
- b. Enbridge Gas online installation video
- c. Summer Hill Customer service?
- d. Enbridge Gas customer service
- e. ecobee website
- f. ecobee customer service
- g. Google search
- h. YouTube videos
- i. Help from a family member, friend, or acquaintance
- j. Hire a contractor to install?

96. Other, please specify: [OPEN-ENDED RESPONSE]

[ALL ANSWERS, → go to Q22]

Q22. Are there any resources that would have helped you with installation?

- a. [OPEN-ENDED RESPONSE]

2.10 Awareness and Motivation

[ASK ALL]

Q23. On a scale from one to five, with one being do not understand at all, and five being completely understand to how well do you feel you understand the benefits of using a smart thermostat?

[SELECT ONE]

1. Not at all understand
2. Slightly understand
3. Moderately understand
4. Mostly understand
5. Completely understand

[IF Q23 = 3-4, respondent has at least a moderate understanding of benefits of the thermostat, → go to Q 24]

Q24. What are the benefits of using a smart thermostat, from your perspective?

- a. [OPEN-ENDED RESPONSE]

[ASK ALL]

Q25. The next **seven** questions are on a scale from 1-5, with "1" meaning not important at all and "5" meaning extremely important and relate to how important the factor was in deciding to purchase the ecobee smart thermostat.

[PROVIDE ADDITIONAL DEFINITIONS OF SCORING RANGE AS NEEDED]:

1. Not important at all
 2. Slightly important
 3. Somewhat important
 4. Important
 5. Extremely important
 6. NA. Not Applicable
-
- a. How important was reducing household energy use and costs in motivating your decision to purchase the ecobee smart thermostat?
[INPUT ANSWER 1-5, OR N/A]
 - b. How important was the ability to control the thermostat remotely in motivating your decision to purchase an ecobee smart thermostat?
[INPUT ANSWER 1-5, OR N/A]
 - c. How important was having access to detailed energy reports and data on household power use over time in motivating your decision to purchase an ecobee smart

thermostat?

[INPUT ANSWER 1-5, OR N/A]

- d. How important were the Advanced scheduling options and occupancy sensors that adapt to your routine in motivating your decision to purchase an ecobee smart thermostat?

[INPUT ANSWER 1-5, OR N/A]

- e. How important was being able to connect the smart thermostat to other smart home devices in motivating your decision to purchase an ecobee smart thermostat?

[INPUT ANSWER 1-5, OR N/A]

- f. How important was reducing household environmental footprint and/or greenhouse gas emissions in motivating your decision to purchase an ecobee smart thermostat?

[INPUT ANSWER 1-5, OR N/A]

- g. How important was your interest in having New Tech in motivating your decision to purchase an ecobee smart thermostat?

[INPUT ANSWER 1-5, OR N/A]

[ASK ALL]

Q26. Based on your experience with your ecobee thermostat, please rate the extent to which you agree or disagree with the following statements on a one-to-five scale, where "1" is completely disagree and "5" is completely agree:

[PROVIDE ADDITIONAL DEFINITIONS OF SCORING RANGE AS NEEDED]:

1. Completely disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Completely agree
6. Not Applicable

- a. Based on your experience, a smart thermostat helps my home save energy.

[INPUT ANSWER 1-5, OR N/A]

- b. Based on your experience, using a smart thermostat introduces privacy and data security risks.

[INPUT ANSWER 1-5, OR N/A]

- c. Based on your experience, a smart thermostat helps keep my home more comfortable

[INPUT ANSWER 1-5, OR N/A]

- d. Based on your experience, using a smart thermostat is difficult or complicated
[INPUT ANSWER 1-5, OR N/A]
- e. Based on your experience, the benefits of a smart thermostat outweigh the drawbacks
[INPUT ANSWER 1-5, OR N/A]

[ASK ALL]

Q27. Is there anything else you would like to share about your experience with the Enbridge Gas Smart Thermostat Discount program?

[SELECT ONE]

- a. Yes, please explain: [OPEN-ENDED RESPONSE]
- b. No

[END – ASK ALL]

Q28. Thank you for your time taking this survey. As a thank you, Enbridge Gas will mail a \$25 gift card to you for one of the following grocery stores: Farm Boy, Food Basics, Metro, No Frills, or Sobeys. Please let us know which of these grocery stores you would prefer:

- a. Farm Boy
- b. Food Basics
- c. Metro
- d. No Frills
- e. Sobeys

Look for a letter in the mail from Enbridge Gas with your gift card. Please note, given the Canada Post Strike, there will unfortunately be a delay in receiving the thank you letter and gift card from Enbridge Gas, and we apologize in advance if this causes you any inconvenience. Thank you again for your time.

