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Report of the Ontario Energy Board

Mid-Term Review of the Demand Side Management
(DSM) Framework for Natural Gas Distributors
(2015-2020)

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1. INTRODUCTION AND BACKGROUND

Introduction

This report concludes the Ontario Energy Board's (OEB) policy consultation related to the Mid-Term Review of the 2015-2020 Demand Side Management (DSM) Framework for natural gas distributors. Through this report, the OEB makes updates to the existing 2015-2020 DSM Framework, provides direction on how the natural gas utilities should proceed with their DSM Plans over the remainder of the current term, and indicates that the development of the next multi-year framework will commence in early 2019.

Conservation opportunities and energy efficiency upgrades are important tools that customers can use to help manage energy costs and reduce their carbon footprint. The current portfolio of OEB-approved conservation programs offered by the natural gas utilities provide a number of opportunities for a gamut of customers. The ability to access expert advice and financial incentives related to energy efficiency upgrades helps lower energy costs, makes homes and workplaces more comfortable, and reduces Ontario's overall carbon footprint.

The OEB received feedback and comments from 12 stakeholders. In addition to the natural gas utilities, a wide variety of customer groups and advocacy representatives participated in the Mid-Term Review consultation. Among those groups who provided written comments included advocates for residential and low-income customers, schools, environmental organizations, building owners and operators, industrial customers, and power producers.

In order to ensure that the natural gas utilities can continue to provide natural gas conservation and energy efficiency opportunities to Ontario customers, the OEB has focused on making only necessary updates to the DSM Framework. The OEB has not accepted all requests made by various parties. The OEB will consider certain requests that have not been implemented at this time as part of the post-2020 DSM framework development.

Background

On March 26, 2014, the Minister of Energy issued a [Directive](#) to the OEB to establish a DSM policy framework, including a Mid-Term Review to align with the Mid-Term Review of the electricity sector Conservation First Framework. On March 31, 2014, the Minister of Energy [directed](#) the Independent Electricity System Operator (then Ontario Power Authority) to complete a Mid-Term Review of the Conservation First Framework no later than June 1, 2018.

On December 22, 2014, the OEB issued the [Report of the Board: Demand Side Management Framework for Natural Gas Distributors \(2015-2020\)](#), in which it noted that a Mid-Term Review would be completed by June 1, 2018 to align with the Mid-Term Review of the Conservation First Framework. The report indicated that the Mid-Term Review would allow the OEB to ensure that the DSM Framework continues to be reasonable and contributes to effective natural gas conservation programs for Ontario customers while achieving annual and long-term targets for reduced consumption.

As part of the [OEB's 2015-2020 DSM Decision](#) on Enbridge Gas Distribution Inc.'s (Enbridge Gas) and Union Gas Limited's (Union Gas) respective 2015-2020 DSM Plan applications (the DSM Decision), the OEB stated that the Mid-Term Review would assess performance on annual metrics, budget levels, impact on customer rates, and shareholder incentives, as well as allow the OEB to consider the DSM Framework relative to the overall energy conservation landscape. The OEB also outlined a number of studies and reports that Enbridge Gas and Union Gas would be required to submit as part of the Mid-Term Review.

On May 11, 2017, the OEB suggested to the Minister of Energy that it would be appropriate to defer completion of the DSM Mid-Term Review by six months to December 1, 2018. This extension would enable the consideration of an additional year of evaluated DSM program results and afford the utilities an opportunity to make further progress on the reports and studies required of them in the DSM Decision. On June 5, 2017, the Minister of Energy agreed that the extension would contribute to the robustness and usefulness of the results of the Mid-Term Review.

Scope of Mid-Term Review

As part of the Mid-Term Review the OEB assessed the studies and reports provided by the natural gas utilities. The OEB also considered all requests and recommended changes to the DSM Framework and DSM Plans from the natural gas utilities and

interested stakeholders. In making its determination on the appropriate updates, the OEB has considered the current energy landscape and government policy.

As indicated in the OEB's [letter](#) dated June 20, 2017 that initiated the Mid-Term Review, the appropriateness of continuing ratepayer-funded DSM, the inclusion of a shareholder incentive for natural gas utilities, and the general makeup of the DSM portfolios are topics that are more appropriately assessed and reconsidered as part of any post-2020 DSM Framework.

The initial scope of the Mid-Term Review also included a limited review of the DSM Framework in the context of the Cap & Trade program. However, the OEB discontinued its review of this topic because the government of Ontario enacted Ontario Regulation 386/18, *Prohibition Against the Purchase, Sale and Other Dealings with Emission Allowances and Credits* that revoked the Cap and Trade Regulation (Cap and Trade Revocation Regulation) on July 3, 2018.

2. PROCESS

The OEB initiated the Mid-Term Review policy consultation on June 20, 2017. The Mid-Term Review included two parts. In the first part, interested parties commented on two issues related to the relationship between DSM and the Cap and Trade program. Submissions from interested parties were due by September 1, 2017.

In the second part, Union Gas and Enbridge Gas submitted the studies and reports set out in the DSM Decision in two phases. As part of Phase 1, the natural gas utilities submitted various studies and reports as required by the DSM Decision by October 1, 2017. As part of Phase 2, the natural gas utilities completed their requirements from the DSM Decision by submitting the remainder of the studies and reports by January 15, 2018.

On August 15, 2018, the OEB issued a letter inviting interested stakeholders to attend a Stakeholder Meeting on September 6, 2018. The Stakeholder Meeting carried on to September 7, 2018. The purpose of the Stakeholder Meeting was to receive input on the status of the 2015-2020 DSM Plans. The OEB indicated that due to the government of Ontario filing the Cap and Trade Revocation Regulation, the Stakeholder Meeting would focus on the reports and studies submitted by the natural gas utilities.

Following the Stakeholder Meeting, all parties had the opportunity to provide written comments to the OEB by September 28, 2018. All material submitted as part of the OEB's DSM Mid-Term Review consultation can be found on the [OEB's website](#).

3. SUMMARY OF CONCLUSIONS

The current suite of natural gas conservation programs approved as part of the OEB's DSM Decision continue to be appropriate and effective. Verified program results from the 2015 and 2016 program years show strong performance and long-term natural gas reductions across the residential, commercial and industrial sectors. Therefore, the OEB concludes that material changes to the DSM Framework and DSM Plans are not warranted at this time.

The OEB has determined that the following updates to the DSM Framework and/or the natural gas utilities' 2015-2020 DSM Plans are appropriate to allow the successful implementation of programs for the remainder of the 2015 to 2020 term.

1. Target and Scorecard related approvals (common to both natural gas utilities)

- a) The approved 2016-2018 scorecards will continue to the end of the current term that expires on December 31, 2020. Scorecards for the 2019 and 2020 program years can be found in Appendix A.
- b) The target adjustment formula that calculates annual targets for a number of programs (those that require future financial commitments) will be modified. This change is necessary in order to ensure annual targets are appropriate and consistent with the DSM Decision.

2. Program related approvals

- a) **Energy Leaders** (Enbridge Gas)
The previously approved Energy Leaders Program will continue for the duration of the current multi-year term. This program has proved to be beneficial in advancing new technologies.
- b) **Residential Home Energy Conservation** (Enbridge Gas)
The Residential Home Energy Conservation Program will be modified. With these modifications (discussed in further detail below), Enbridge Gas' program will be aligned with Union Gas' program, making it easier for residential customers throughout Ontario to understand the program and for Enbridge Gas to administer the program.
- c) **Residential Adaptive Thermostat Program** (Union Gas)
This pilot project will be expanded to a full program for the duration of the current multi-year term. The results of Union Gas' pilot study show strong market adoption.

d) **Open Bill Access** (Union Gas)

Union Gas is to continue the development and roll out of its Open Bill Access program. This program enables, amongst other things, financing of energy efficiency purchases and billing using Union Gas customer's utility bill. No additional funding will be provided and Union Gas must continue to ensure that the program is consistent with Enbridge Gas' program.

e) **Cost of Carbon - Cost-Effectiveness Analysis** (common to both natural gas utilities)

The cost of carbon, using the publicly available federal carbon cost, will be explicitly included as part of all cost-effectiveness analyses. This will ensure that all benefits are being accounted for when determining the cost-effectiveness of the natural gas utilities' programs.

f) **Future Infrastructure Planning** (common to both natural gas utilities)

Case studies and data analysis should continue in order to better understand how DSM can be included within the natural gas utilities' infrastructure planning processes. The proposed roadmap provided by the natural gas utilities is a starting point. The OEB expects the natural gas utilities to develop more robust procedures to ensure conservation opportunities can be reasonably considered as alternatives to future capital projects.

There were a number of additional requests made by the natural gas utilities and non-utility stakeholders. The OEB will consider the topics listed below as part of the development of the post-2020 DSM Framework.

- Budget modifications, including increases and re-allocation of approved funding
- Target modifications, including adjustments to productivity factor
- Shareholder incentive structure
- Scorecard modifications, including metric weighting
- Amortizing DSM costs
- New programs, including pilots

The OEB will begin the development of the post-2020 DSM Framework early in 2019. Further details will be provided at a later date.

4. KEY POLICY ISSUES

The OEB considered a number of sometimes competing policy issues when determining the appropriateness of changes to the current DSM Framework. In reviewing the requests from interested stakeholders related to budgets, targets, and program parameters, the OEB also considered the experience to-date with the existing OEB-approved programs, the overall bill impacts to customers, conservation and climate change policy, and the merger of Enbridge Gas and Union Gas.

The 2015-2020 DSM Framework was developed after multiple months of stakeholder consultation. The OEB approved the natural gas utilities' multi-year plans following a lengthy adjudicative process that included several weeks of oral hearing and detailed submissions by many intervenors. As the current DSM plans are proving to be successful to date, the OEB is of the view that material changes to the DSM Framework and Plans are not required at this time. The OEB will consider potentially broader changes as part of the post-2020 DSM framework development.

As part of the DSM Framework, the OEB indicated that a maximum \$2 per month cost threshold for residential customers was appropriate in order to establish program budgets. The OEB has not been convinced to adjust these cost parameters for the 2015-2020 DSM Framework at the mid-term. The current suite of programs offered by the natural gas utilities provides opportunities for a wide variety of customers. As the costs of the programs are shared across all customers, including those who do not participate, any increase to the DSM budgets should either provide a greater opportunity for more inclusion or address areas where significant potential remains. With energy bills being an important consideration for many customers, both small and large, the OEB must balance the importance of funding energy efficiency advancements and conservation efforts with reasonable bill impacts to customers. The Mid-Term Review proposals that would increase the DSM budget, for the most part, lack sufficient evidence that the benefits justify increased rate impacts to customers at this time. A more thorough review of DSM budgets will be considered as part of the next DSM term.

Other factors that can influence the DSM Framework are provincial and federal climate change policy and the merger of the natural gas utilities. As the Cap and Trade program is no longer in place, the provincial energy efficiency programs that once existed no longer require immediate resolution. It is expected that the merger of Enbridge Gas and Union Gas will result in greater efficiencies and more consistent program delivery throughout the province. However, the merger is still in its very early stages. The OEB will be better positioned to determine the appropriateness of significant changes brought on by the merger as part of the post-2020 DSM framework development.

As previously acknowledged by the OEB, DSM should play a role in the natural gas utilities' capital infrastructure planning process to ensure appropriate alternatives are being thoroughly considered. Changes to natural gas savings metrics and targets are critical in driving an effective DSM framework that yields significant results. During the development of the post-2020 DSM framework, the OEB will be informed by the on-going integrated electricity and natural gas conservation potential study. The OEB may also consider ideas about reductions in overall energy bills and total building usage for inclusion in future natural gas utility performance targets. DSM budget levels must continue to be balanced with the costs to customers. In considering the appropriateness of future funding, the OEB will assess how costs are recovered from rate payers, potentially including new proposals such as amortizing DSM costs. Finally, the makeup of the natural gas utilities' future multi-year DSM plans should include a focused and cohesive direction. The OEB will also consider the need for greater opportunities for smaller customers (residential, low income, small commercial, institutional) and the appropriateness of a reduced focus on larger, more sophisticated customers (industrial, power producers, etc.).

5. ANALYSIS

The current DSM Framework spans six years. This provides program continuity. It also ensures stability and certainty for customers, the natural gas utilities, and other market participants, including contractors, vendors and manufacturers.

In order for the OEB to evaluate the on-going effectiveness of the DSM Framework and the approved DSM Plans, mid-term requirements were included in the DSM Decision.

The natural gas utilities were required to file various reports and studies outlined in Schedule D of the DSM Decision in two stages. The focus of these reports and studies included areas such as:

- Integrated program delivery across natural gas utilities and with electricity conservation providers
- Research into mass market conservation opportunities
- Progress reports on pilot programs
- Research related to overhead and administration cost benchmarks
- Suggested refinements and improvements to the DSM Framework, including utility performance scorecards, target adjustment formula and outcome-based performance metrics
- Analysis and recommendations on how to integrate conservation and energy efficiency efforts into the natural gas utilities' larger capital infrastructure planning

The OEB has summarized the various reports and studies submitted by the natural gas utilities below. In addition to the reports and studies, the natural gas utilities also made several requests for modifications to the DSM Framework and their DSM Plans. Non-utility stakeholders also submitted proposals and made submissions on the changes proposed by the natural gas utilities.

5.1 Program Results

The OEB has completed its evaluation of the natural gas utilities' 2015 and 2016 program results. The OEB took on the coordination function of Evaluation, Measurement, & Verification (EM&V) process as part of the DSM Framework. The goal of having the OEB lead the program evaluation was to ensure the utility-reported program results are thoroughly reviewed and verified through an independent process. The OEB has relied on its expert, independent Evaluation Contractor to lead all efforts. The OEB has also leveraged the insight and expertise of the Evaluation Advisory Committee (EAC). The EAC is comprised of gas utility staff, expert independent

stakeholders, the IESO and observers from the Ministry of Energy and Environmental Commissioner of Ontario.

Summary of Program Results

The key program results from 2015 and 2016 are summarized below, including:

- Achievement on the performance scorecards
- Natural gas savings achieved
- Participation levels achieved compared to OEB-approved targets
- Cost-effectiveness of the natural gas utilities' various program areas
- Program spending across various sectors

The table below shows a summary of the verified scorecard achievements by both natural gas utilities in 2015¹ and 2016². Overall, the natural gas utilities have performed very well compared to their annual targets.

Figure 1 – Enbridge Gas Performance Scorecard Achievement

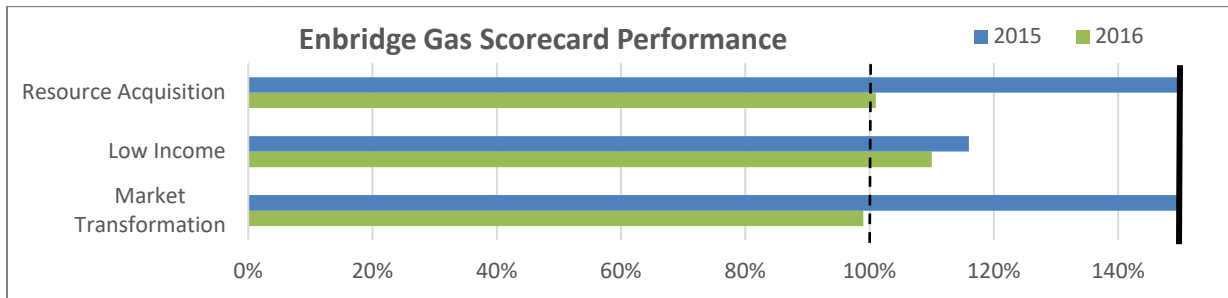
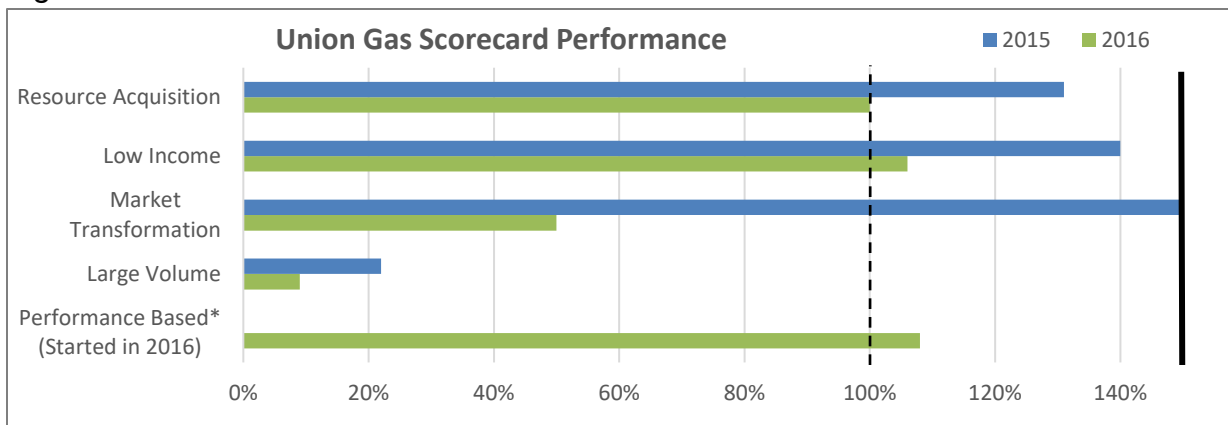


Figure 2 – Union Gas Performance Scorecard Achievement



¹ 2015 scorecard achievement was approved by the OEB in EB-2017-0323 and EB-2017-0324

² 2016 scorecard achievement was verified by the OEB's Evaluation Contractor as part of the OEB's 2016 DSM Annual Verification Report, October 30, 2018. Scorecard achievement is capped at 150%.

The overall natural gas savings achieved by the natural gas utilities are shown in figures below. Long-term natural gas savings are the primary objective of the DSM Framework. The natural gas utilities programs are designed to provide financial incentives so that customers can implement energy efficiency upgrades that have a long-term impact. The natural gas savings shown below are the total natural gas reductions over the lifetime of the various energy efficiency measures installed (or cumulative cubic meters (CCM) of natural gas savings).

Figure 3 – Lifetime Natural Gas Savings From 2015 and 2016 DSM Programs

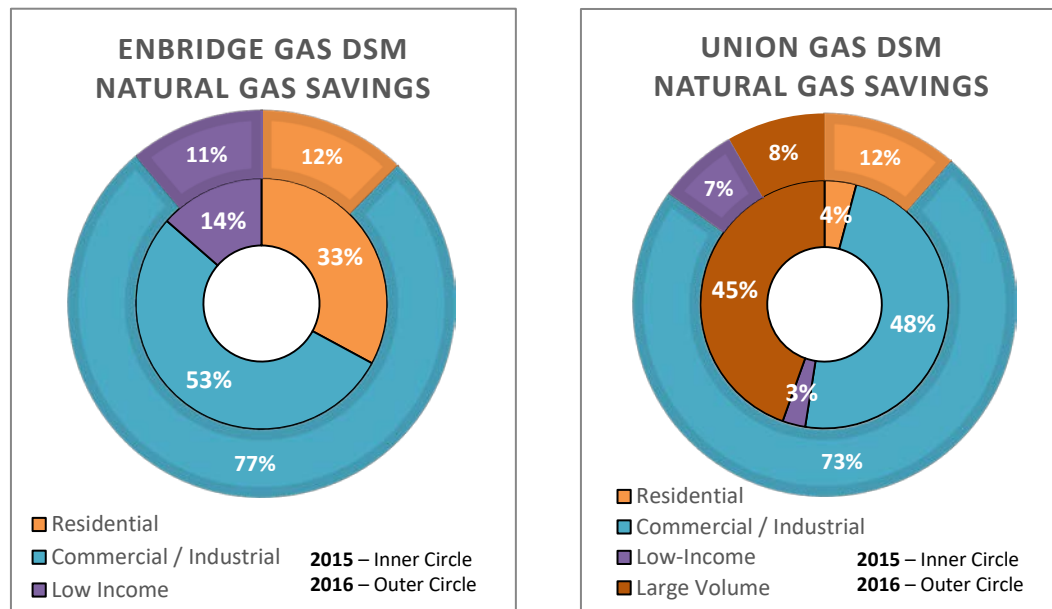


Figure 3(a) – Enbridge Gas DSM Savings

Figure 3(b) – Union Gas DSM Savings

The OEB approved some participation targets as part of the DSM Decision. This helps ensure that the natural gas utilities have high customer participation levels in their programs. The natural gas utilities have shown strong participation achievement in the first half of the multi-year term. The residential program’s participation targets and results are summarized in the table below.

Table 1 – Target and Actual Comparison: Residential Participation Levels

	2015			2016		
	Target	Actual	% of Target	Target	Actual	% of Target
Enbridge Gas	762	5,646	741%	8,259	12,986	157%
Union Gas	1,254	2,529	202%	3,300	6,595	200%

All approved programs are analyzed on an annual basis to ensure they are cost-effective. The OEB’s Evaluation Contractor completes an independent assessment of the costs and benefits of the natural gas utilities’ program. At a minimum, for programs to be cost-effective, they must provide benefits equal to costs. Overall, the natural gas utilities’ programs have been found to be very cost effective, thereby providing significant benefits to customers.

Table 2 –Cost-effectiveness Results

	Union Gas		Enbridge Gas	
	2015	2016	2015	2016
Residential	1.03	1.67	2.24	1.96
Commercial & Industrial Prescriptive	3.29	3.43	4.20	3.24
Commercial & Industrial Custom	3.32	3.53	3.45	4.04
Low Income	1.25	1.53	1.75	1.95
Large Volume	5.97	5.02		

Figure 4 below shows the percentage of program spending by sector in 2015 and 2016. The natural gas utilities have continued to spend most or all of the budgets approved by the OEB. Budget levels will largely remain unchanged from the DSM Decision³, ensuring bill impacts remain stable.

Figure 4 – Program Spending as a Percentage of Overall 2015 and 2016 DSM Budgets

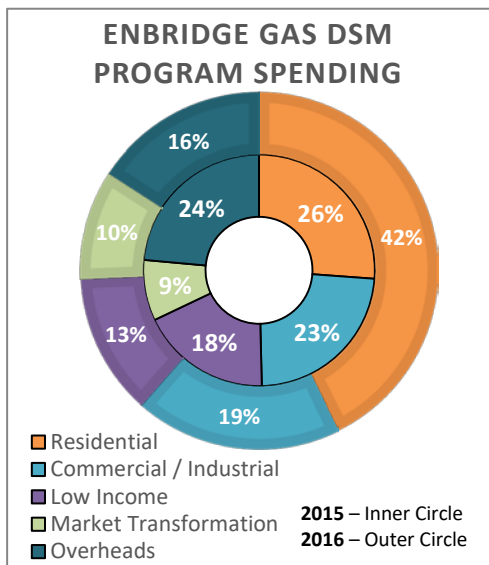


Figure 4(a) – Enbridge Gas DSM Spending

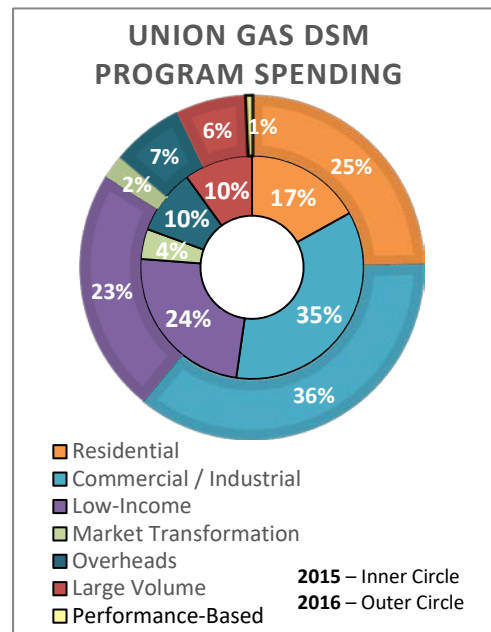


Figure 4(b) – Union Gas DSM Spending

³ The only changes to the budgets approved as part of the DSM Decisions include: 1) a continuation of Enbridge Gas’ Energy Leaders program (annual budget of \$0.4M), and, 2) expansion of Union Gas’ Residential Adaptive Thermostats pilot into a full program (annual budget of \$1.5M).

5.2 Common Requests from Utilities

The natural gas utilities made a number of requests for various changes to either the DSM Framework or their respective DSM Plans. Similar requests that were made by both utilities are discussed in this section.

5.2.1 Budget and Target Adjustments

As part of the DSM Decision, the OEB approved annual targets for all DSM programs. The OEB-approved targets were 10% greater than those proposed by the natural gas utilities. As part of the mid-term submissions, the natural gas utilities indicated that it is increasingly difficult to meet the OEB-approved targets within the current budget parameters. As a result, the natural gas utilities requested that the OEB approve a 10% budget increase, or conversely, reduce the approved targets by 10%. If approved, the additional funding would be used to provide additional financial incentives to customers.

Stakeholders who commented on this request were not supportive. Some parties indicated that approval of additional funding or changes to the approved targets should happen as part of a broader process. Further information on the need for the additional funding is required. Stakeholders also recommended the OEB review this issue as part of the post-2020 DSM Framework.

OEB Conclusion

The annual budgets approved as part of the DSM Decision will largely remain unchanged for the completion of the 2015-2020 DSM term. The results of the first two years of programs show that although challenging, the gas utilities' have been able to meet close to 100% of the weighted scorecard metrics. Therefore, the OEB-approved targets remain reasonable. Further, for the OEB to make a material adjustment to the natural gas utilities' DSM Plans, additional justification would be required. The OEB expects the natural gas utilities to continue to strive for cost efficiencies in its overheads and administration, including marketing and promotion costs, especially considering the merger of Enbridge Gas and Union Gas. Budget and target levels will be re-examined as part of the development of the post-2020 DSM Framework.

5.2.2 Funding for Energy Literacy

Enbridge Gas requested approval to continue its standalone Energy Literacy program with equal annual budgets of \$0.5M in 2019 and 2020. Union Gas did not propose a

standalone Energy Literacy program as part of its DSM plan, but did include other educational components within its programs. As part of the DSM Decision, the OEB directed Enbridge Gas to work with Union Gas and the IESO to ensure that the Energy Literacy program is comprehensive and included both gas and electricity conservation information. The OEB indicated its expectations that the natural gas utilities would propose an integrated program as part of the Mid-Term Review with consistent province-wide messaging.

As part of the Mid-Term Review, Union Gas requested approval of an annual budget of \$0.25M for 2019 and 2020 to support the development of a new Energy Literacy program. The natural gas utilities did not make a proposal for an integrated Energy Literacy program. The natural gas utilities indicated that although they have discussed integrated activities, they could not develop an integrated plan for the OEB's consideration since Union Gas did not have discrete funding.

OEB Conclusion

The OEB does not approve the requested Energy Literacy budgets for 2019 or 2020. The OEB expected the natural gas utilities to develop and propose an integrated Energy Literacy program. The absence of a discrete Energy Literacy budget for Union Gas is not an acceptable reason for not developing and proposing an integrated program.

The OEB continues to be of the view that customers in both the utilities' franchise areas should be receiving consistent energy conservation education and messaging. At a minimum, they should be receiving the same information from each gas utility. Given that the current suite of approved programs for both utilities includes educational information, the OEB expects Enbridge Gas and Union Gas to coordinate the educational components of their DSM programs for the remainder of the current multi-year term.

5.2.3 Scorecard Modifications

The natural gas utilities requested a number of modifications to the OEB-approved scorecards, including:

- Two modifications to the target adjustment formula:
 - Exempting programs with deferred customer incentives from the annual target adjustment formula
 - Revising the OEB-approved productivity factors to make them consistent for all programs

- General modifications to the structure of the scorecards, including moving some programs from one scorecard to another
 - Adjustments to metric weighting within a scorecard

Modifications to the Target Adjustment Formula

One central area of concern raised by the natural gas utilities is the impact of deferred customer incentives on the target adjustment formula. As part of the DSM Decision, the OEB requested that the natural gas utilities provide suggestions on appropriate changes to the target adjustment formula.

The issue raised by the natural gas utilities relates to programs that provide financial incentives to customers based on the customer meeting certain program requirements over multiple years, such as completing a new building project at a pre-determined efficiency level. Due to the nature of these programs, they require future financial commitments. These future commitments are not specifically recognized in the target adjustment formula approved in the DSM Decision. The target formula in the DSM Decision requires the natural gas utilities to include “actual annual program costs”. As future costs are funded in a single year, their inclusion in the target adjustment formula yields results that are inconsistent with the direction of the DSM Decision. To correct this mechanical issue with the target adjustment formula, the natural gas utilities proposed fixed targets to replace the target adjustment formula for the following programs:

- **Enbridge Gas:** Low-Income New Construction, Run-it-Right, Comprehensive Energy Management, Residential Savings by Design and Commercial Savings by Design
- **Union Gas:** RunSmart and Strategic Energy Management

Stakeholders who commented on the proposed updates to the target adjustment formula did not support fixed targets. SEC suggested that the OEB make a slight modification to the existing target adjustment formula and replace “actual annual program costs” with “annual accrued program costs”. SEC suggested this as an interim solution, until further evidence can be made available and a more thorough examination of the issue can be conducted as part of the post-2020 framework.

OEB Conclusion

The OEB will revise the target adjustment formula for the programs listed above. The revised target formula will replace “annual actual program costs” with “annual accrued program costs”. Accrued program costs are those costs that the gas utility is subject to providing to the customer in latter years should the customer fulfill its commitments to the program and be eligible for the financial incentives. The updated target adjustment formula has been applied to the 2018, 2019 and 2020 scorecards as shown in Appendix A.

The OEB will not accept the proposed fixed targets as there is limited material supporting the natural gas utilities’ proposals. Future targets for these types of programs will be considered as part of the development of the post-2020 DSM framework.

In addition to requesting fixed targets in place of the target adjustment formula for market transformation programs, Enbridge Gas also requested the OEB-approved productivity factor be lowered from 10% to 2%. Enbridge Gas noted that the programs subject to this increased productivity factor are mature and that this level of productivity adds stress to already difficult targets.

The OEB will not make any changes to the productivity factors set out in the DSM Decision. No parties other than Enbridge Gas supported this change. This type of change would require significantly more justification. Any changes to the productivity factors will be considered as part of the post-2020 DSM framework development.

Run-it-Right/RunSmart and Comprehensive/Strategic Energy Management Scorecard Changes

Resource Acquisition programs provide customers with rebates or financial incentives that reduce the overall cost of upgrading to more efficient technologies and equipment. The primary goal of Resource Acquisition programs is natural gas savings. Market Transformation programs focus on changing customer behaviour and attitudes related to energy efficiency and energy conservation. The primary focus of Market Transformation programs is education and building a stronger understanding of the benefits of energy efficiency and conservation. Market Transformation programs may provide a financial incentive, but the eligibility for a financial incentive is generally related to efficiency performance. For example, the level of efficiency of new homes built, or the overall reduction in natural gas for a commercial or industrial facility after a longer-term period of monitoring and assessment. Ultimately, Market Transformation

programs are meant to be the catalyst of long-term shift in market adoption of technologies, building practices and operational changes.

Currently, Run-it-Right/RunSmart and Comprehensive/Strategic Energy Management programs are included within Enbridge Gas' Market Transformation scorecard and Union Gas' Performance-Based scorecards. The OEB's 2015-2020 DSM Framework stressed the importance of including programs within the natural gas utilities' multi-year DSM Plans that influence customer behaviour to support reductions in natural gas consumption. The Run-it-Right/RunSmart and Comprehensive/Strategic Energy Management programs are congruent with the OEB's direction. These programs provide commercial and industrial customers with expert advice and recommendations on how to improve their energy usage through operational changes.

The OEB indicated that these programs should be re-classified as Resource Acquisition programs, instead of Market Transformation programs, at the Mid-Term Review as the main goal of these programs appears to be achieving natural gas savings. Therefore, Enbridge Gas proposed to move the participant metrics associated with its Run-it-Right and Comprehensive Energy Management programs from the Market Transformation scorecard to the Resource Acquisition scorecard.

Union Gas proposed to keep its similar programs, RunSmart and Strategic Energy Management, entirely within its Performance-Based Scorecard. Union Gas stated that it does not want to lose the focus on these smaller programs by including them on a scorecard with much larger programs.

Some stakeholders cautioned that moving programs across scorecards could be detrimental to the overall goals of the DSM Framework. Along with shifting the metrics from one program to another, the weight of the shareholder incentive allocated to that scorecard will also need to be revised. This may result in a shift in focus and less attention on important, but smaller programs.

OEB Conclusion

The OEB will not make any changes to the makeup of the scorecards approved as part of the DSM Decision at this time. It is appropriate to continue to include the Run-it-Right/Run Smart and Comprehensive/Strategic Energy Management programs within Enbridge Gas' Market Transformation and Union Gas' Performance-Based scorecards. These programs focus on educating commercial and industrial customers on how to best manage their energy usage, including operational improvements. Although these programs will likely result in natural gas savings, the main goal of the programs is

providing expert advice related to the benefits of energy efficiency and operational improvements. The OEB will consider adjustments to the structure of the scorecards, and the classification of these programs as either Resource Acquisition or Market Transformation, as part of the post-2020 DSM framework development.

5.2.4 Net-to-Gross Ratios

The natural gas utilities only receive credit for the program results (typically natural gas savings) from the customers that were influenced to undertake energy efficiency upgrades because of the natural gas utilities' programs.

Those customers who participate in a program to receive a financial incentive, but would have otherwise undertaken the energy efficiency upgrade without the incentive, are referred to as free riders. The natural gas utilities are not allowed to count the natural gas savings achieved from free riders towards the achievement of their DSM targets. However, the natural gas utilities are able to count natural gas savings from spillover. Spillover is a measure of how much the natural gas utilities' programs influence the adoption of energy efficiency beyond the financial incentives they provide program participants.

The portion of natural gas savings achieved by customers influenced by the natural gas utilities' program is called the net-to-gross ratio. Free ridership lowers the net-to-gross ratio as these customers were not influenced by the program. Conversely, spillover leads to a higher net-to-gross ratio. Free ridership accounts for the large majority of the net-to-gross adjustment. The results of a net-to-gross study have an impact on the total program results and in turn, on the natural gas utilities' shareholder incentive. A higher net-to-gross ratio (low free ridership and/or high spillover) may lead to a higher shareholder incentive.

As part of the OEB's evaluation of the natural gas utilities' 2015 program results, the OEB's Evaluation Contractor conducted a study to determine the influence of the natural gas utilities' custom programs. The custom programs make up the largest portion of their natural gas savings as they mainly target commercial and industrial customers. The results of the 2015 study showed that the natural gas utilities' net-to-gross values were 50% or less, which was lower than the net-to-gross value the natural gas utilities had been using until 2014, based on a net-to-gross study developed in 2008.

The natural gas utilities have requested the OEB abandon net-to-gross studies during the 2015-2020 term. The natural gas utilities have proposed a fixed net-to-gross ratio of

between 70% to 80% (or a free-ridership rate of 20%-30%) for all programs other than Low-Income. The natural gas utilities have questioned the value of the 2015 study methodology employed by the OEB's Evaluation Contractor. Additionally, a fixed net-to-gross value will provide more certainty and increase the ability to plan program delivery throughout the year.

OEB Conclusion

The OEB does not accept the natural gas utilities' request for a fixed net-to-gross value. These proposals are a fundamental departure from the principles enunciated in the 2015-2020 DSM Decision, and the proposed fixed net-to-gross ratios are significantly higher than the values derived as part of the 2015 net-to-gross study. As part of the evaluation of DSM program results, it is industry best practice to regularly study and measure how effective the natural gas utilities' programs are at influencing customers to undertake energy efficiency improvements and at transforming the market. No other stakeholder supported the natural gas utilities' request for fixed net-to-gross values.

The OEB will continue to rely on the advice, such as that provided in the [2016-2018 DSM EM&V plan](#) provided by the Evaluation Contractor, with input from the EAC, to determine the appropriate evaluation activities to undertake. Through the OEB-led evaluation process, the natural gas utilities' program results are thoroughly tested so that rate payers have the confidence that the programs they fund are producing the expected results. The OEB is of the view that measuring the natural gas utilities' influence is imperative to ensuring the programs are producing the results reported by the natural gas utilities. The OEB stresses that the natural gas utilities should actively screen potential program participants thoroughly, and actively seek out customers who can most greatly benefit from the programs, therefore ensuring program funds are used as effectively as possible.

5.2.5 Shareholder Incentive Modifications

The DSM Framework includes an annual shareholder incentive. This rewards the natural gas utilities for meeting and exceeding the annual performance targets. The natural gas utilities are eligible for a shareholder incentive if it achieves at least 75% of a target. The shareholder incentive increases with target achievement. In order to motivate the natural gas utilities to pursue results beyond their targets, 60% of the total shareholder incentive is available for achievement between 100% and 150% of a target. The current shareholder incentive for each gas utility enables them to receive \$4.2 million if the gas utility achieves 100% on all targets. The maximum shareholder incentive available is \$10.45 million if the gas utility achieves 150% of all targets.

The natural gas utilities have requested that the structure of the shareholder incentive be modified. The proposed changes would enable the natural gas utilities to earn the shareholder incentive at lower levels of achievement (as low as 25%, as requested by Union Gas), as well as making a larger portion of the overall amount available for achievement below and up to 100%.

OEB Conclusion

No non-utility stakeholder supported the natural gas utilities' shareholder incentive modifications. The OEB will make no changes to the shareholder incentive during the 2015-2020 term. The current shareholder incentive provides a significant opportunity for the natural gas utilities in the event they meet and exceed their annual targets. The OEB will review the appropriateness of the shareholder incentive, including the structure and overall amount available to the natural gas utilities, as part of the post-2020 DSM framework development.

5.2.6 Future Infrastructure Planning

As part of the DSM Decision, the OEB directed the natural gas utilities to work jointly on preparing a transition plan that outlines how to include DSM as part of future infrastructure planning activities. In response to the DSM Decision, the natural gas utilities worked jointly with a consultant to develop the transition plan. The transition plan identified how DSM can be included within the larger capital infrastructure planning undertaken by the natural gas utilities. The natural gas utilities have proposed to undertake various case studies and further analysis to better understand the effects of various efficiency measures and conservation impacts on overall and peak hourly demand. The natural gas utilities proposed to continue to integrate various planning processes and have dedicated internal resources to this undertaking.

OEB Conclusion

Stakeholders indicated reservations in the usefulness of the transition plan provided by the natural gas utilities. The OEB agrees that although the progress made is at an early stage, the transition plan does not advance the understanding of the role and impact that energy conservation can play in deferring or avoiding capital projects. Currently, leave to construct applications do not include a description of the DSM alternatives considered to help avoid and/or defer the proposed capital project. The natural gas utilities should continue to develop rigorous protocols to include DSM as part of their internal capital planning process. This should include a comprehensive evaluation of

conservation and energy efficiency considered as an alternative to reduce or defer infrastructure investments as part of all leave to construct applications.

5.3 Specific Requests by Enbridge Gas

Enbridge Gas made the following requests within its mid-term submissions:

- Funding for Energy Leaders
- Establish a new DSM Participant Incentive Deferral Account
- Modify the design of the Savings by Design Program
- Modify the Home Energy Conservation Program

5.3.1 Funding for Energy Leaders

The OEB approved an Energy Leaders pilot program until the end of 2018 as part of the DSM Decision. The program targets customers that have already made energy efficiency upgrades and assists them in achieving harder-to-reach energy reductions by providing higher financial incentives for new and innovative technologies. The DSM Decision indicated that Enbridge Gas would need to submit results of the pilot at the Mid-Term Review.

Enbridge Gas submitted the results of its pilot as part of the Mid-Term Review and requested approval to continue the program with equal annual budgets of \$0.4M in 2019 and 2020, which is equivalent to the annual budgets approved until 2018 in the DSM Decision. The pilot results provided evidence of an ice re-surfacing program that influenced the early adoption of an emerging technology to private arena owners and municipal facilities. Enbridge Gas proposed to focus on two other emerging technologies over the latter portion of the current term: demand circulation loops and natural gas heat pumps.

OEB Conclusion

Stakeholders were generally supportive of the continuation of the Energy Leaders pilot program. The OEB agrees that it is reasonable for Enbridge Gas to continue to offer this program in 2019 and 2020 as it has proven to be successful. Enbridge Gas is to track the costs of this program within the DSMVA and seek approval of recovery of the amounts as part of the annual DSM deferral and variance account application. The annual spending should be no greater than \$0.4M, the amount proposed by Enbridge Gas.

5.3.2 Establish a new DSM Participant Incentive Deferral Account

Enbridge Gas requested that the OEB approve a new deferral account that will allow it to track and carry forward approved DSM amounts for programs that span over multiple years. The deferred amounts would be used when a customer incentive commitment is due.

OEB Conclusion

The OEB will not approve the requested deferral account. Deferral accounts are needed when a utility incurs costs that have not been included in base rates. The utility will then seek recovery of these costs through the disposition of the deferral account balances. Enbridge Gas has already received approval for the funding required to support all programs until 2020. Therefore, it is inappropriate to approve a new deferral account.

The OEB appreciates that some future year financial commitments will likely fall outside of the current 2015-2020 DSM term. Therefore, the OEB will allow Enbridge Gas to use the DSMVA to track future financial commitments for programs with deferred customer incentives. Enbridge Gas ought to file a draft accounting order as part of its 2016 DSM deferral and variance account application to capture this change.

5.3.3 Savings by Design Program Modifications

Enbridge Gas requested to reduce the eligibility threshold for its Savings by Design programs from 25% above the 2012 Ontario Building Code to 15% above 2017 Ontario Building Code.

OEB Conclusion

The OEB supports Enbridge Gas' request. This program design modification is consistent with the DSM Decision. As part of the DSM Decision, the OEB indicated to Union Gas that its residential new construction program should continue to target improvements of 15% above the new 2017 Ontario Building Code standards. Both natural gas utilities should proceed with a threshold of 15% above 2017 Ontario Building Code for the remainder of the 2015-2020 term.

5.3.4 Residential Home Energy Conservation Program Modifications

The OEB approved Enbridge Gas' and Union Gas' residential programs as part of the DSM Decision, despite the differences in how customer incentives were calculated. Enbridge Gas' current program provides a single performance-based incentive that is calculated based on the total annual natural gas savings. Union Gas' program provides prescriptive financial incentives for individual energy efficiency technologies.

Enbridge Gas proposed to align its customer incentive calculations with Union Gas to give customers greater continuity across the province, and to make the program and the benefits to customers easier to understand. Enbridge Gas did not propose any changes to the OEB-approved budget. Going forward, Enbridge Gas proposed to provide prescriptive incentives for each individual energy efficiency measure installed, with an eligibility requirement of a minimum of two measures installed.

OEB Conclusion

The OEB supports the Home Energy Conservation design changes proposed by Enbridge Gas. These changes will allow customers to receive consistent, easy-to-understand programming across the province to help make energy efficiency improvements and manage energy costs.

5.4 Specific Requests by Union Gas

Union Gas made the following requests within its mid-term submissions:

- DSM budget and shareholder incentive reallocation procedure
- Funding for Residential Adaptive Thermostat Program
- Modify scorecards – Low-Income, Market Transformation, Performance-Based

5.4.1 DSM Budget and Shareholder Incentive Reallocation Procedure

Union Gas requested the ability to reallocate its OEB-approved budget and shareholder incentive amounts across approved DSM programs and scorecards. Union Gas indicated increased flexibility is needed to respond and adapt to changes in Ontario's energy conservation landscape.

OEB Conclusion

The OEB does not approve Union Gas' request for additional reallocation flexibility. The OEB notes that the DSMVA already provides some flexibility to reallocate funds between programs. Additionally, as the Cap and Trade program is no longer in effect, this should reduce the need for increased flexibility arising from other competing market actors. The OEB will consider proposals for additional flexibility to reallocate approved funds during the post-2020 DSM framework development.

5.4.2 Funding for Residential Adaptive Thermostat Program

As part of the DSM Decision, the OEB approved a residential adaptive thermostat pilot program for Union Gas. The OEB instructed Union Gas to submit the results of the pilot program at the Mid-Term Review for consideration as a full Resource Acquisition program. Union Gas requested approval to expand its Residential Adaptive Thermostat program from a pilot into a full program for 2019 and 2020.

Union Gas requested approval of an incremental annual budget of \$1.5M in both 2019 and 2020. The budget is proportional to Enbridge Gas' approved program and the number of residential customers for each utility; \$1.3M of annual funding would be spent on customer incentives (\$100 customer rebate per thermostat), and \$0.2M on promotion. An additional 34,645,000 cumulative cubic meters of natural gas savings was proposed to be added to the Resource Acquisition scorecard. This natural gas savings figure was calculated using technical standards of gas savings per thermostat that were reviewed by the OEB's Evaluation Contractor.

OEB Conclusion

Stakeholders were generally supportive of this request. The OEB supports Union Gas' request to expand this program in 2019 and 2020 as a greater number of residential customers will be able to participate and receive important benefits of this smart technology.

Union Gas will track program expenditures in the DSMVA. The OEB supports a notional target of 34,645,000 cumulative cubic meters of natural gas savings. Union Gas' 2019 and 2020 Resource Acquisition scorecards have been updated to reflect this notional target in Appendix A. Union Gas should provide supporting evidence for this target as part of its 2019 DSM deferral and variance account application. This will be the first time the additional natural gas savings are included within the Resource Acquisition scorecard. Parties will have the ability to test this figure as part of that application.

5.4.3 Scorecard Modifications

Union Gas proposed to modify three scorecards: Low Income, Market Transformation and Performance-Based.

Low Income Scorecard

Currently there are two cumulative natural gas savings metrics for this program: one assigned to social and assisted housing and the other to market rate buildings. Union Gas proposed to combine these two metrics into a single natural gas savings metric within its Low-Income Multi-Family program. The rationale for this proposed change is to align the approved budget with the target. The budget for the Multi-Family program is not differentiated between social and assisted housing and market rate buildings.

OEB Conclusion

Stakeholders did not support this proposal. They indicated that this would result in Union Gas solely focusing on the area of the market it has the most success.

The OEB does not approve the proposed Low Income scorecard modification. It is important that Union Gas continue to focus on both areas of the market that this program aims to address. Maintaining separate metrics will ensure this happens. Union Gas has shown an ability to use its approved budget effectively and a combined cumulative natural gas savings metric is not required. The OEB will consider changes to this program and the scorecard during the post-2020 DSM framework development.

Market Transformation Scorecard

Union Gas proposed to continue with the structure of the approved Market Transformation scorecards as outlined in the OEB's [revised DSM Decision](#) issued on February 24, 2016.

OEB Conclusion

The OEB agrees. The 2019 and 2020 scorecards are in Appendix A.

Performance-Based Scorecard

Union Gas proposed to remove the target adjustment formula for its performance based programs: RunSmart and Strategic Energy Management.

OEB Conclusion

As discussed in Section 5.2.3 above, the OEB has made a modification to the target adjustment formula to address the issue of future financial commitments to customers.

5.4.4 Open Bill Access

As part of the DSM Decision, the OEB directed Union Gas to work with Enbridge Gas and establish a similar Open Bill Access program. This program allows third party companies to use the utility bill to charge for services provided. Union Gas followed this direction and developed its own Open Bill Access program. The program is expected to be available to third party companies and customers in the latter portion of 2018. Funding to develop Union Gas' Open Bill Access program came from the approved 2018 DSM budget.

OEB Conclusion

Stakeholders were generally supportive of this program. However, if the investment was not already made or committed, some stakeholders suggested that Union Gas defer the rollout of the program until the two natural gas utilities have merged as the two natural gas utilities would be expected to share the same billing system.

The OEB appreciates Union Gas' efforts in creating an Open Bill Access program. The OEB agrees that if the investment to provide access to this program has largely been made or committed, Union Gas should proceed in order to allow customers to have access to this financing opportunity as soon as possible. While it is expected that the natural gas utilities will eventually share the same billing system, this may take some time to implement. In the interim, Union Gas is encouraged to ensure consistency with Enbridge Gas' program, as this would simplify participation by contractors and other service providers in the province by having programs that are harmonized.

5.5 Requests from Other Stakeholders

The OEB received written comments from 10 non-utility stakeholders as part of the Mid-Term Review consultation. In addition to comments on the natural gas utilities' requests, some stakeholders provided new suggestions for the OEB's consideration.

Environmental Defence (ED) and the Green Energy Coalition (GEC) filed a joint submission. ED and GEC made a number of recommendations that are summarized below.

Amortize DSM Costs

ED and GEC suggested that the OEB consider amortizing DSM costs. Specifically, they suggested that a portion of the natural gas utilities' 2019 and 2020 DSM costs be amortized over the lifetime of the energy efficient equipment installed. Additionally, they suggested that the OEB explore amortizing all DSM costs for the post-2020 DSM framework. The benefits of amortizing DSM costs include:

- Softening rate impacts – spreading the cost over 15 years will enable participants to pay for the cost of the DSM program with the savings from reduced gas usage.
- Consistency with supply-side investments – the cost of the natural gas utilities' new capital infrastructure is amortized over a period of time.
- Intergenerational fairness – amortization decreases the number of customers that pay for DSM programs but do not benefit.
- Allows for greater expansion of cost-effective DSM – reduces the amount of upfront costs, allowing for a greater breadth of programming to be implemented.

OEB Conclusion

Stakeholders who commented on this concept were generally supportive of continuing the discussions as part of the post-2020 DSM framework development. The OEB agrees that amortizing DSM costs over the lifetime of the energy efficiency programs should be explored during the post-2020 DSM framework development.

5.5.1 Accurately Account for Carbon Costs

ED and GEC suggested that the OEB include carbon costs to the DSM screening and cost-effectiveness analyses while maintaining the 15% non-energy benefit adder. The

natural gas utilities also suggested this through a [letter](#) filed on April 20, 2018. This addition would properly account for a material benefit of conservation programs.

OEB Conclusion

The OEB agrees that all material benefits of DSM should be recognized as part of the screening and cost-effectiveness analyses. As such, the OEB agrees that the cost of carbon should be added to the TRC-Plus cost effectiveness test. This will ensure that planning and cost-effectiveness analyses fully consider the costs and benefits of the DSM programs. The natural gas utilities should include the federal cost of carbon as part of future avoided cost updates, as it is the most relevant public data source currently available. The OEB will also include the cost of carbon in the cost-effectiveness analysis undertaken as part of the annual program evaluation work. Additionally, the OEB will maintain the non-energy benefit adder of 15% currently included in the TRC-Plus cost-effectiveness test. The OEB will further consider this topic as part of the post-2020 DSM framework development.

5.5.2 Pilot Program: Performance/Benchmarking

ED and GEC recommended that the natural gas utilities develop an energy performance and benchmarking pilot program. The pilot program would test a program concept that analyzes data from a group of similar buildings, for example schools, to determine square foot energy use benchmarks. The benchmark information would in turn allow the utilities to identify and focus on those customers with the greatest savings potential. The benefits of this program include maximizing program funding and achieving the greatest level of savings.

OEB Conclusion

While the OEB is interested in the concepts presented, it is not practical to implement this program at this stage of the 2015-2020 DSM Framework. The OEB encourages the natural gas utilities to begin exploring this concept. This appears to be a good candidate for a pilot program in the post-2020 DSM framework.

5.5.3 Other Proposals

ED and GEC made other proposals including mandating greater savings, between 10% and 30%, by expanding DSM programs and budgets, and proposing material changes to the shareholder incentive structure.

OEB Conclusion

As previously discussed in section 5.2.5, the OEB will not make changes to the shareholder incentive during the 2015-2020 term. The OEB will review the appropriateness of the shareholder incentive, including the structure and overall amount available to the natural gas utilities, as part of the post-2020 DSM framework development.

The OEB also views the notion of exploring greater savings as being an intrinsic part of the discussions in section 5.5.1 of this report which will be further explored as part of the post-2020 DSM framework.

5.6 Mid-Term Studies and Reports

As required by the OEB, the natural gas utilities provided several studies and reports. Some of those studies and reports did not culminate into proposals for the OEB to consider as part of the DSM Mid-Term Review. A summary of these mid-term requirements and associated OEB comments are provided in Table 3 below.

Table 3 – Summary of Mid-Term Studies and Reports

	Mid-Term Requirement	Utility Response	OEB Comment
Enbridge Gas Distribution Inc.			
E1	Explore an integrated program with electricity utilities related to adaptive thermostats	Enbridge Gas collaborated with Toronto Hydro to offer adaptive thermostat program.	Enbridge Gas should continue to explore additional opportunities to provide customers with a single point of contact for energy conservation opportunities.
E2	Provide the evaluation results of Small Commercial New Construction Pilot	Enbridge Gas did not implement the program. Rather, it re-directed the entirety of program funds (approximately \$1.7M) to the Residential Home Energy Conservation (HEC) program to meet participant incentive costs.	The DSM Guidelines indicated that the natural gas utilities should inform the OEB and stakeholders in the event cumulative fund transfers among OEB-approved programs exceeds 30% of the budget. Enbridge Gas transferred 100% of its Small Commercial New Construction budget. The OEB will re-evaluate the policy related to funding transfers as part of the post-2020 DSM framework development.
Union Gas Limited			
U1	Explore different conservation measures and technologies for a mass market residential program	Union Gas has proposed to expand its residential adaptive thermostats pilot into a full program.	Union Gas should continue to explore other opportunities for new mass-market programs for residential customers.
Requirements of both natural gas utilities			
C1	Provide evidence showing how it has lowered free ridership rates of its custom programs	<p>Enbridge Gas has focused on education and training, program design and participant screening.</p> <p>Union Gas has enhanced several key program design and implementation practices, including updated program eligibility, and improved documentation and screening.</p>	The updates provided by Union Gas are encouraging. Ensuring rigorous screening of potential participants, discrete program eligibility and a greater effort on seeking out participants who can benefit greatest from the programs is essential. Both natural gas utilities should continue to be diligent in their screening efforts to ensure that customers participating in their programs would not otherwise undertake the energy efficiency upgrades on their own. The OEB cautions that dedicating resources to education, technical advice, and workshops may not have the intended impact on lowering free ridership levels.

	Mid-Term Requirement	Utility Response	OEB Comment
C2	Demonstrate all low-income programs have a TRC-Plus result of at least 0.7	2016 Low-Income Program TRC-Plus Results: Enbridge Gas: 1.9 Union Gas:1.5	The current Low-Income programs, on aggregate, pass the cost-effectiveness test. However, when evaluated on its own, Union Gas' Furnace End-of-Life program falls below the threshold with a 0.51 TRC-Plus result. The natural gas utilities should continue to monitor low-income programs to ensure they are providing value.
C3	Provide summary of market needs and demonstration of how Market Transformation programs are prioritized	The natural gas utilities indicated that Market Transformation programs are generally identified through consultation with stakeholders to understand underserved areas of the market. The current new construction Market Transformation programs are appropriate due to remaining educational and awareness barriers and the significant opportunity.	The natural gas utilities should continually monitor and assess the impact of their market transformation programs. This will ensure that the programs are achieving their intended goal of helping to re-shape the particular market the program is targeting. Specifically, the natural gas utilities should analyze, based on evaluation best practice, natural gas savings achieved for those participants in the Run-it-Right and RunSmart Programs and provide the findings of the program evaluation during the development of the post-2020 DSM framework. The natural gas utilities should work with the OEB's Evaluation Contractor and the EAC to ensure its evaluation is sufficient.
C4	Consider appropriateness of categorizing Residential New Construction as Resource Acquisition programs	Both natural gas utilities proposed to maintain the Residential New Construction program in the Market Transformation Scorecard. The programs focus is educating builders in the hopes that all builders construct new homes to a high efficiency level.	The OEB agrees that it is reasonable to keep the Residential New Construction programs within the Market Transformation scorecard. This will maintain the focus on these important programs and enable effective results.
C5	Provide evidence related to program overhead and portfolio overhead (or administration) costs	The natural gas utilities engaged a consultant to undertake a jurisdictional review. The natural gas utilities noted the importance of having a clear definition of administrative and overhead costs. The natural gas utilities are concerned current overhead budgets are too low.	The OEB appreciates the administrative cost efficiencies the natural gas utilities have strived to achieve. The OEB encourages the utilities to continue to identify areas of optimization. As part of the post-2020 DSM framework development, the OEB will develop a more precise definition of Administrative and Overhead costs.
C6	Provide evidence related to additional outcome-based performance scorecard metrics	The natural gas utilities presented a summary of some new metrics, but suggested to maintain the status quo.	The OEB will explore new metrics, including performance-based metrics, as part of the post-2020 framework development.
C7	Evidence related to integrated conservation programs developed with IESO	The natural gas utilities and the IESO worked collaboratively to provide a Residential Whole Home Program.	The integrated Whole Home Program was a successful partnership. The OEB encourages continued collaboration. As part of the post-2020 framework development, the OEB will explore other areas of integration.

6. CONCLUSIONS

This DSM Mid-Term Report addresses multiple objectives. It responds to the Minister of Energy's 2014 Directive and allows the OEB to review and assess the effectiveness of the multi-year DSM plans. The Mid-Term Review has also allowed stakeholders the ability to propose changes and introduce new concepts and ideas. The OEB will consider these proposals as part of the post-2020 DSM framework development. Finally, the Mid-Term Review provides the necessary updates to allow the natural gas utilities to continue to offer and deploy successful energy conservation programs to Ontario customers, uninterrupted and in an efficient and effective manner.

The natural gas utilities should implement the updates to their DSM plans for the 2019 program year as described in this Report. The natural gas utilities should continue to re-examine the design and delivery of their programs to ensure they are optimized to provide the best value to customers. The OEB expects that as the merger between Enbridge Gas and Union Gas proceeds, the utilities will strive for cohesion and begin planning for a combined DSM plan in the post-2020 term. The OEB expects further efficiencies as a result of having a single utility providing natural gas conservation programs to customers.

The OEB will begin development of the post-2020 DSM framework in early 2019. Interested stakeholders will be able to participate in the process. The OEB will provide further information in due course.

APPENDIX A

ONTARIO ENERGY BOARD

NATURAL GAS DEMAND SIDE MANAGEMENT

2015 TO 2020 DSM FRAMEWORK

MID-TERM REVIEW

EB-2017-0127
EB-2017-0128

2018-2020 Scorecards

**DSM Mid-Term Review
Appendix A - Scorecards**

Enbridge Gas Distribution Inc. - 2018 Resource Acquisition Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Home Energy Conservation Residential Adaptive Thermostats Commercial & Industrial Custom Commercial & Industrial Prescriptive Commercial & Industrial Direct Install Run-it-Right	Large Volume Customers Cumulative Natural Gas Savings (m3)	75% of Target	2017 metric achievement (LRAM natural gas savings) / 2017 Large Volume Customers Resource Acquisition actual spend without overheads x 2018 Large Volume Customers Resource Acquisition budget without overheads x 1.02	150% of Target	40%
Comprehensive Energy Management (CEM)	Small Volume Customers Cumulative Natural Gas Savings (m3)	75% of Target	2017 metric achievement (LRAM natural gas savings) / 2017 Small Volume Customers Resource Acquisition actual spend without overheads x 2018 Small Volume Customers Resource Acquisition budget without overheads x 1.02	150% of Target	40%
Home Energy Conservation	Residential Deep Savings Participants (Homes)	75% of Target	2017 metric achievement / 2017 actual program spend without overheads x 2018 program budget without overheads x 1.02	150% of Target	20%

Note: Metric achievement is calculated using verified program savings used for LRAMVA purposes

Enbridge Gas Distribution Inc. - 2019 Resource Acquisition Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Home Energy Conservation Residential Adaptive Thermostats Commercial & Industrial Custom Commercial & Industrial Prescriptive Commercial & Industrial Direct Install Run-it-Right	Large Volume Customers Cumulative Natural Gas Savings (m3)	75% of Target	2018 metric achievement (LRAM natural gas savings) / 2018 Large Volume Customers Resource Acquisition actual spend without overheads x 2019 Large Volume Customers Resource Acquisition budget without overheads x 1.02	150% of Target	40%
Comprehensive Energy Management (CEM)	Small Volume Customers Cumulative Natural Gas Savings (m3)	75% of Target	2018 metric achievement (LRAM natural gas savings) / 2018 Small Volume Customers Resource Acquisition actual spend without overheads x 2019 Small Volume Customers Resource Acquisition budget without overheads x 1.02	150% of Target	40%
Home Energy Conservation	Residential Deep Savings Participants (Homes)	75% of Target	2018 metric achievement / 2018 actual program spend without overheads x 2019 program budget without overheads x 1.02	150% of Target	20%

Note: Metric achievement is calculated using verified program savings used for LRAMVA purposes

Enbridge Gas Distribution Inc. - 2020 Resource Acquisition Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Home Energy Conservation Residential Adaptive Thermostats Commercial & Industrial Custom Commercial & Industrial Prescriptive Commercial & Industrial Direct Install Run-it-Right	Large Volume Customers Cumulative Natural Gas Savings (m3)	75% of Target	2019 metric achievement (LRAM natural gas savings) / 2019 Large Volume Customers Resource Acquisition actual spend without overheads x 2020 Large Volume Customers Resource Acquisition budget without overheads x 1.02	150% of Target	40%
Comprehensive Energy Management (CEM)	Small Volume Customers Cumulative Natural Gas Savings (m3)	75% of Target	2019 metric achievement (LRAM natural gas savings) / 2019 Small Volume Customers Resource Acquisition actual spend without overheads x 2020 Small Volume Customers Resource Acquisition budget without overheads x 1.02	150% of Target	40%
Home Energy Conservation	Residential Deep Savings Participants (Homes)	75% of Target	2019 metric achievement / 2019 actual program spend without overheads x 2020 program budget without overheads x 1.02	150% of Target	20%

Note: Metric achievement is calculated using verified program savings used for LRAMVA purposes

Enbridge Gas Distribution Inc. - 2018 Low Income Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Home Winterproofing	Cumulative Natural Gas Savings (m3)	75% of Target	2017 metric achievement (LRAM natural gas savings) / 2017 actual program spend without overheads x 2018 program budget without overheads x 1.02	150% of Target	45%
Low-Income Multi-Residential	Cumulative Natural Gas Savings (m3)	75% of Target	2017 metric achievement (LRAM natural gas savings) / 2017 actual program spend without overheads x 2018 program budget without overheads x 1.02	150% of Target	45%
Low-Income New Construction	Number of Project Applications	75% of Target	2017 metric achievement / 2017 accrued program cost without overheads x 2018 program budget without overheads x 1.02	150% of Target	10%

Note: Metric achievement is calculated using verified program savings used for LRAMVA purposes

Enbridge Gas Distribution Inc. - 2019 Low Income Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Home Winterproofing	Cumulative Natural Gas Savings (m3)	75% of Target	2018 metric achievement (LRAM natural gas savings) / 2018 actual program spend without overheads x 2019 program budget without overheads x 1.02	150% of Target	45%
Low-Income Multi-Residential	Cumulative Natural Gas Savings (m3)	75% of Target	2018 metric achievement (LRAM natural gas savings) / 2018 actual program spend without overheads x 2019 program budget without overheads x 1.02	150% of Target	45%
Low-Income New Construction	Number of Project Applications	75% of Target	2018 metric achievement / 2018 accrued program cost without overheads x 2019 program budget without overheads x 1.02	150% of Target	10%

Note: Metric achievement is calculated using verified program savings used for LRAMVA purposes

Enbridge Gas Distribution Inc. - 2020 Low Income Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Home Winterproofing	Cumulative Natural Gas Savings (m3)	75% of Target	2019 metric achievement (LRAM natural gas savings) / 2019 actual program spend without overheads x 2020 program budget without overheads x 1.02	150% of Target	45%
Low-Income Multi-Residential	Cumulative Natural Gas Savings (m3)	75% of Target	2019 metric achievement (LRAM natural gas savings) / 2019 actual program spend without overheads x 2020 program budget without overheads x 1.02	150% of Target	45%
Low-Income New Construction	Number of Project Applications	75% of Target	2019 metric achievement / 2019 accrued program cost without overheads x 2020 program budget without overheads x 1.02	150% of Target	10%

Note: Metric achievement is calculated using verified program savings used for LRAMVA purposes

Enbridge Gas Distribution Inc. - 2018 Market Transformation Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
School Energy Competition	Schools	75% of Target	2017 metric achievement / 2017 actual program spend without overheads x 2018 program budget without overheads x 1.1	150% of Target	10%
Run-it-Right	Participants	75% of Target	2017 metric achievement / 2017 accrued program costs without overheads x 2018 program budget without overheads x 1.1	150% of Target	20%
Comprehensive Energy Management (CEM)	Participants	75% of Target	2017 metric achievement / 2017 accrued program costs without overheads x 2018 program budget without overheads x 1.1	150% of Target	20%
Residential Savings by Design	Builders	75% of Target	2017 metric achievement / 2017 accrued program costs without overheads x 2018 program budget without overheads x 1.1	150% of Target	10%
	Homes Built	75% of Target	2017 metric achievement / 2017 accrued program costs without overheads x 2018 program budget without overheads x 1.1	150% of Target	15%
Commercial Savings by Design	New Developments	75% of Target	2017 metric achievement / 2017 accrued program costs without overheads x 2018 program budget without overheads x 1.1	150% of Target	25%

Enbridge Gas Distribution Inc. - 2019 Market Transformation Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
School Energy Competition	Schools	75% of Target	2018 metric achievement / 2018 actual program spend without overheads x 2019 program budget without overheads x 1.1	150% of Target	10%
Run-it-Right	Participants	75% of Target	2018 metric achievement / 2018 accrued program costs without overheads x 2019 program budget without overheads x 1.1	150% of Target	20%
Comprehensive Energy Management (CEM)	Participants	75% of Target	2018 metric achievement / 2018 accrued program costs without overheads x 2019 program budget without overheads x 1.1	150% of Target	20%
Residential Savings by Design	Builders	75% of Target	2018 metric achievement / 2018 accrued program costs without overheads x 2019 program budget without overheads x 1.1	150% of Target	10%
	Homes Built	75% of Target	2018 metric achievement / 2018 accrued program costs without overheads x 2019 program budget without overheads x 1.1	150% of Target	15%
Commercial Savings by Design	New Developments	75% of Target	2018 metric achievement / 2018 accrued program costs without overheads x 2019 program budget without overheads x 1.1	150% of Target	25%

Enbridge Gas Distribution Inc. - 2020 Market Transformation Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
School Energy Competition	Schools	75% of Target	2019 metric achievement / 2019 actual program spend without overheads x 2020 program budget without overheads x 1.1	150% of Target	10%
Run-it-Right	Participants	75% of Target	2019 metric achievement / 2019 accrued program costs without overheads x 2020 program budget without overheads x 1.1	150% of Target	20%
Comprehensive Energy Management (CEM)	Participants	75% of Target	2019 metric achievement / 2019 accrued program costs without overheads x 2020 program budget without overheads x 1.1	150% of Target	20%
Residential Savings by Design	Builders	75% of Target	2019 metric achievement / 2019 accrued program costs without overheads x 2020 program budget without overheads x 1.1	150% of Target	10%
	Homes Built	75% of Target	2019 metric achievement / 2019 accrued program costs without overheads x 2020 program budget without overheads x 1.1	150% of Target	15%
Commercial Savings by Design	New Developments	75% of Target	2019 metric achievement / 2019 accrued program costs without overheads x 2020 program budget without overheads x 1.1	150% of Target	25%

Union Gas Limited - 2018 Resource Acquisition Scorecard

		Metric Targets			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Home Reno Rebate Commercial & Industrial Custom Commercial & Industrial Prescriptive Commercial & Industrial Direct Install	Cumulative Natural Gas Savings (m3)	75% of Target	2017 metric achievement (LRAM natural gas savings) / 2017 Resource Acquisition actual spend without overheads x 2018 Resource Acquisition budget without overheads x 1.02	150% of Target	75%
Home Reno Rebate	Home Reno Rebate Participants (Homes)	75% of Target	2017 metric achievement / 2017 actual program spend without overheads x 2018 program budget without overheads x 1.02	150% of Target	25%

Note: Metric achievement is calculated using verified program savings used for LRAMVA purposes

Union Gas Limited - 2019 Resource Acquisition Scorecard

		Metric Targets			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Home Reno Rebate Residential Adaptive Thermostat Commercial & Industrial Custom Commercial & Industrial Prescriptive Commercial & Industrial Direct Install	Cumulative Natural Gas Savings (m3)	75% of Target	2018 metric achievement (LRAM natural gas savings) / 2018 Resource Acquisition actual spend without overheads x 2019 Resource Acquisition budget without overheads (and not including Residential Adaptive Thermostat program) x 1.02 + 34,645,500 m3	150% of Target	75%
Home Reno Rebate	Home Reno Rebate Participants (Homes)	75% of Target	2018 metric achievement / 2018 actual program spend without overheads x 2019 program budget without overheads x 1.02	150% of Target	25%

Note: Metric achievement is calculated using verified program savings used for LRAMVA purposes

Union Gas Limited - 2020 Resource Acquisition Scorecard

		Metric Targets			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Home Reno Rebate Residential Adaptive Thermostat Commercial & Industrial Custom Commercial & Industrial Prescriptive Commercial & Industrial Direct Install	Cumulative Natural Gas Savings (m3)	75% of Target	2019 metric achievement (LRAM natural gas savings) / 2019 Resource Acquisition actual spend without overheads x 2020 Resource Acquisition budget without overheads x 1.02	150% of Target	75%
Home Reno Rebate	Home Reno Rebate Participants (Homes)	75% of Target	2019 metric achievement / 2019 actual program spend without overheads x 2020 program budget without overheads x 1.02	150% of Target	25%

Note: Metric achievement is calculated using verified program savings used for LRAMVA purposes

**DSM Mid-Term Review
Appendix A - Scorecards**

Union Gas Limited - 2018 Low Income Scorecard		Metric Target			
		Lower Band	Target	Upper Band	Weight
Programs	Metrics				
Home Weatherization Furnace End-of-Life Aboriginal	Cumulative Natural Gas Savings (m3)	75% of Target	2017 metric achievement (LRAM natural gas savings) / 2017 actual program spend without overheads x 2018 program budget without overheads x 1.02	150% of Target	60%
Multi-family	Social and Assisted Multi-Family Cumulative Natural Gas Savings (m3)	75% of Target	2017 metric achievement (LRAM natural gas savings) / 2017 actual program spend without overheads x 2018 program budget without overheads x 1.02	150% of Target	35%
	Market Rate Multi-Family Cumulative Natural Gas Savings (m3)	75% of Target	2017 metric achievement (LRAM natural gas savings) / 2017 actual program spend without overheads x 2018 program budget without overheads x 1.02	150% of Target	5%

Union Gas Limited - 2019 Low Income Scorecard		Metric Target			
		Lower Band	Target	Upper Band	Weight
Programs	Metrics				
Home Weatherization Furnace End-of-Life Aboriginal	Cumulative Natural Gas Savings (m3)	75% of Target	2018 metric achievement (LRAM natural gas savings) / 2018 actual program spend without overheads x 2019 program budget without overheads x 1.02	150% of Target	60%
Multi-family	Social and Assisted Multi-Family Cumulative Natural Gas Savings (m3)	75% of Target	2018 metric achievement (LRAM natural gas savings) / 2018 actual program spend without overheads x 2019 program budget without overheads x 1.02	150% of Target	35%
	Market Rate Multi-Family Cumulative Natural Gas Savings (m3)	75% of Target	2018 metric achievement (LRAM natural gas savings) / 2018 actual program spend without overheads x 2019 program budget without overheads x 1.02	150% of Target	5%

Union Gas Limited - 2020 Low Income Scorecard		Metric Target			
		Lower Band	Target	Upper Band	Weight
Programs	Metrics				
Home Weatherization Furnace End-of-Life Aboriginal	Cumulative Natural Gas Savings (m3)	75% of Target	2019 metric achievement (LRAM natural gas savings) / 2019 actual program spend without overheads x 2020 program budget without overheads x 1.02	150% of Target	60%
Multi-family	Social and Assisted Multi-Family Cumulative Natural Gas Savings (m3)	75% of Target	2019 metric achievement (LRAM natural gas savings) / 2019 actual program spend without overheads x 2020 program budget without overheads x 1.02	150% of Target	35%
	Market Rate Multi-Family Cumulative Natural Gas Savings (m3)	75% of Target	2019 metric achievement (LRAM natural gas savings) / 2019 actual program spend without overheads x 2020 program budget without overheads x 1.02	150% of Target	5%

Union Gas Limited - 2018 Large Volume Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Large Volume Program for T2/R100 Customers	Cumulative Natural Gas Savings (m3)	75% of Target	Three-year rolling average (2015-2017) Rate T2/Rate 100 cost effectiveness x 2018 budget without overheads x 1.02	150% of Target	100%

*Cost effectiveness = Final verified metric achievement used for LRAMVA purposes divided by final actual program spend for that year

Union Gas Limited - 2019 Large Volume Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Large Volume Program for T2/R100 Customers	Cumulative Natural Gas Savings (m3)	75% of Target	Three-year rolling average (2016-2018) Rate T2/Rate 100 cost effectiveness x 2019 budget without overheads x 1.02	150% of Target	100%

*Cost effectiveness = Final verified metric achievement used for LRAMVA purposes divided by final actual program spend for that year

Union Gas Limited - 2020 Large Volume Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Large Volume Program for T2/R100 Customers	Cumulative Natural Gas Savings (m3)	75% of Target	Three-year rolling average (2017-2019) Rate T2/Rate 100 cost effectiveness x 2020 budget without overheads x 1.02	150% of Target	100%

*Cost effectiveness = Final verified metric achievement used for LRAMVA purposes divided by final actual program spend for that year

**DSM Mid-Term Review
Appendix A - Scorecards**

Union Gas Limited - 2018 Market Transformation Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Optimum Home	Participating Builders (Regional Top 10)	6	8	12	10%
	Prototype Homes Built	45%	60%	90%	30%
	Percentage of Homes Built (>20% above OBC 2012) by Participating Builders	3.75%	5%	7.5%	10%
Commercial New Construction	New Developments Enrolled by Participating Builders	75% of Target	2017 metric achievement / 2017 actual program spend without overheads x 2018 program budget without overheads x 1.1	150% of Target	50%

Union Gas Limited - 2019 Market Transformation Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Optimum Home	Participating Builders (Regional Top 10)	3	4	6	10%
	Prototype Homes Built	68%	90%	100%	10%
	Homes Built (>15% above OBC 2017) by Participating Builders	75% of Target	2018 metric achievement / 2018 actual program spend without overheads x 2019 program budget without overheads x 1.1	150% of Target	30%
Commercial New Construction	New Developments Enrolled by Participating Builders	75% of Target	2018 metric achievement / 2018 actual program spend without overheads x 2019 program budget without overheads x 1.1	150% of Target	50%

Union Gas Limited - 2020 Market Transformation Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
Optimum Home	Homes Built (>15% above OBC 2017) by Participating Builders	75% of Target	2019 metric achievement / 2019 actual program spend without overheads x 2020 program budget without overheads x 1.1	150% of Target	50%
Commercial New Construction	New Developments Enrolled by Participating Builders	75% of Target	2019 metric achievement / 2019 actual program spend without overheads x 2020 program budget without overheads x 1.1	150% of Target	50%

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Union Gas Limited - 2018 Performance-Based Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
RunSmart	Participants	75% of Target	2017 metric achievement / 2017 accrued program cost without overheads x 2018 program budget without overheads x 1.1	150% of Target	10%
	Savings (%)	75% of Target	2017 metric achievement / 2017 accrued program cost without overheads x 2018 program budget without overheads x 1.1	150% of Target	40%
Strategic Energy Management (SEM)	Participants	75% of Target	2017 metric achievement / 2017 accrued program cost without overheads x 2018 program budget without overheads x 1.1	150% of Target	10%
	Savings (%)	4%	5%	8%	40%

Union Gas Limited - 2019 Performance-Based Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
RunSmart	Participants	75% of Target	2018 metric achievement / 2018 accrued program cost without overheads x 2019 program budget without overheads x 1.1	150% of Target	10%
	Savings (%)	75% of Target	2018 metric achievement / 2018 accrued program cost without overheads x 2019 program budget without overheads x 1.1	150% of Target	40%
Strategic Energy Management (SEM)	Savings (%)	75% of Target	2018 metric achievement / 2018 accrued program cost without overheads x 2019 program budget without overheads x 1.1	150% of Target	50%

Union Gas Limited - 2020 Performance-Based Scorecard		Metric Target			
Programs	Metrics	Lower Band	Target	Upper Band	Weight
RunSmart	Participants	75% of Target	2019 metric achievement / 2019 accrued program cost without overheads x 2020 program budget without overheads x 1.1	150% of Target	10%
	Savings (%)	75% of Target	2019 metric achievement / 2019 accrued program cost without overheads x 2020 program budget without overheads x 1.1	150% of Target	40%
Strategic Energy Management (SEM)	Savings (%)	75% of Target	2019 metric achievement / 2019 accrued program cost without overheads x 2020 program budget without overheads x 1.1	150% of Target	50%