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September 4, 2015

VIA RESS, EMAIL and COURIER

Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street
Suite 2700
Toronto, ON M4P 1E4

Dear Ms. Walli,

**Re: Enbridge Gas Distribution Inc. (the "Company" or "Enbridge")
Ontario Energy Board (the "Board") File: EB-2015-0049
Multi-Year Demand Side Management Plan (2015 to 2020)
Undertaking Responses**

Enclosed please find the following undertaking responses:

- Exhibit J6.10;
- Exhibits J8.1, and 8.15, and
- Exhibits J9.5, 9.8 and 9.9.

Also enclosed please find the corrected undertaking response for:

- Exhibit J5.3_Attachment, page 6

This completes Enbridge's undertaking responses.

The submission has been filed through the Board's Regulatory Electronic Submission System ("RESS") and will be available on the Company's website under the "Other Regulatory Proceedings" tab at www.enbridgegas.com/ratecase.

If you require further information, please contact the undersigned.

Yours truly,

(Original Signed)

Bonnie Jean Adams
Regulatory Coordinator

Encl.

cc: Mr. Dennis O'Leary, Aird & Berlis
EB-2015-0049 Intervenors

UNDERTAKING J6.10

UNDERTAKING

TR, page 158

Enbridge to endeavour to prepare a document similar to Union's Exhibit A, Tab 3, Appendix A, Schedule 4.

RESPONSE

Please see below a table showing participant savings by rate class in likeness to Union's Exhibit A, Tab 3, Appendix A, Schedule 4, as created on a best efforts basis. Enbridge has produced this table in order to be responsive, but wishes to highlight notable concerns with this representation:

- Evaluating participant savings on a rate class basis combines multiple offers which encompass a variety of objectives and differing value propositions for customers. As a result, while in theory the analysis offers insight into all of Enbridge's DSM offers, in another way it offers insight into none;
- Enbridge's rate allocation and subsequent bill impact analyses encompass its entire budget, inclusive of many activities which are valuable for society and ratepayers but may not produce direct or measureable gas savings. This may create an imbalance where costs are shown, but all savings are not;
- Some of Enbridge's offers are measured and analyzed by number of participants, where others are measured and analyzed by number of units (i.e., a single participant may install multiple units of a single or multiple technologies). The Company has made best efforts to rectify and normalize this issue for the purpose of this analysis; and,
- The Company has removed the My Home Health Record offer from this analysis (though the cost of this offer in rates is still shown for consistency with the Company's pre-filed evidence). This offer is intended to reach over 1.3 million customers in 2020; including this many participants in the table below would have a likely skew the analysis.

Witnesses: K. Mark
B. Ott

Rate Class	Average Annual Savings per Participant (m ³)	Annual Volumes for Typical Customer (m ³)	Average Variable Unit Rate (\$ / m ³) ¹	Annual			Monthly		
				Savings (\$)	Cost in Rates (\$) ²	Difference (\$)	Savings (\$)	Cost in Rates (\$) ²	Difference (\$)
	(a)	(b)	(c)	(d) = (a) * (c)	(e)	(f) = (d) - (e)	(g) = (d/12)	(h) = (e/12)	(i) = (g) - (h)
Rate 1	415	2,400	\$0.27	\$110.04	\$26.57	\$83.47	\$9.17	\$2.21	\$6.96
Rate 6	4,615	22,606	\$0.23	\$1,070.74	\$147.96	\$922.78	\$89.23	\$12.33	\$76.90
Rate 9	-	-	-	-	-	-	-	-	-
Rate 110	132,530	598,568	\$0.14	\$18,555.42	\$1,374.86	\$17,180.56	\$1,546.28	\$114.57	\$1,431.71
Rate 115	648,473	4,471,609	\$0.15	\$99,384.72	\$13,125.97	\$86,258.75	\$8,282.06	\$1,093.83	\$7,188.23
Rate 125	-	-	-	-	-	-	-	-	-
Rate 135	103,066	598,567	\$0.19	\$19,474.78	\$3,603.53	\$15,871.25	\$1,622.90	\$300.29	\$1,322.60
Rate 145	179,587	598,568	\$0.18	\$32,522.36	\$2,092.05	\$30,430.31	\$2,710.20	\$174.34	\$2,535.86
Rate 170	233,042	9,976,120	\$0.18	\$40,885.00	\$12,286.46	\$28,598.55	\$3,407.08	\$1,023.87	\$2,383.21
Rate 200	-	-	-	-	-	-	-	-	-
Rate 300	-	-	-	-	-	-	-	-	-

1. Derived from EB-2015-0163

2. Exhibit B, Tab 2, Schedule 4, Table 12

Witnesses: K. Mark
B. Ott

UNDERTAKING J8.1

UNDERTAKING

TR, page 10

Enbridge to provide its response to undertaking no. JT4.4

RESPONSE

Please find attached a table outlining Enbridge's responses to Synapse's recommendations accompanied by commentary on possible budget implications. The Company has prepared its thoughts on this matter on a best efforts basis, however, Enbridge wishes to ensure that the Board understands that time limitations and the complexity inherent in the request have not allowed Enbridge to generate a comprehensive analysis of each recommendation's budget implications, or any possible interactions between recommendations. The Company would also note that it has not provided commentary regarding the appropriate timing of implementation for Synapse's recommendations where further exploration or action may be warranted, as many of the recommendations may best be implemented as part of the mid-term review or at a later date.

Witnesses: M. Lister
F. Oliver-Glasford

RECOMMENDATION	ENBRIDGE'S RESPONSE	IMPLICATIONS ON BUDGET
Chapter 3. Overview and Assessment of the Plans		
1. The utilities should coordinate with each other to track and report data comprehensively and consistently. It was difficult to obtain data for this analysis at the offering -level, including costs by costs categories (marketing, incentive, evaluation, administration, and performance incentive), savings and benefits by fuel type (gas, electricity, water, non-energy benefits), cost-effectiveness (total costs, benefits, net benefits, and benefit-cost ratios), and performance incentives (maximum incentive and target incentive). Such information should be readily available in plans and reports in a transparent format that is consistent across the utilities.	Enbridge sees some value in improving the consistency of data reporting with Union. Enbridge could work with Union to identify areas where such consistency can be achieved in time for the mid-term review. It should be noted that complete consistency may not be achievable given that the utilities have different offer portfolios, different internal systems, and different conventions with respect to budgets, targets, results, and other key data points.	Uncertain.
2. Participation should be planned for and reported in detail, including the number of participants expected to be served, definitions of what a participant represents in each program (number of units, houses, etc.), and the number of customers that are eligible to participate in each program. This data should be provided for each year of the plan and during annual reporting.	Enbridge believes its current Plan as filed provides the necessary information for the Board to render a decision on whether it meets the expectations as set out in the Framework. Obtaining the information required to meet this recommendation is not always possible, however, Enbridge will investigate further and seek to provide this type of information in its annual report.	None to marginal increase due to increased administrative requirements.

Chapter 4. Assessment of Evaluation Plans			
4.9.1 Impact Evaluation Plan			
Enbridge and Union			
1. Both utilities should make sure that they provide in their evaluation plans key pieces of information recommended by SEE Action (2012).	In line with the DSM Filing Guidelines issued by the Board, Enbridge developed Evaluation Offer Plans using the IESOs EM&V Protocols as its basis in preparing is evidence. Moving forward, Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee with consideration of budgets and value derived.	None to marginal increase due to increased administrative requirements.	
2. Both utilities should provide information on their expectations on overall certainty of savings (i.e., confidence level and interval).	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee. However, it is worthwhile to note that in putting forth plans on the basis of current information, the Utility has a high level of confidence in the appropriateness of Plan targets.	None to marginal increase due to increased administrative requirements.	
3. Both utilities should provide information on the names of current evaluators already selected by the OEB, if any, or how the OEB should plan to select evaluators.	Enbridge believes this to be an appropriate topic for the newly formed Evaluation and Audit Committee.	None to marginal increase due to increased administrative requirements.	

Enbridge		
1. Enbridge's evaluation plan should mention the use of input assumptions or the TRM for specific offerings where applicable.	In the body of its evidence, Enbridge provided reference to input assumptions provided on the public record. Going forward, Enbridge could more explicitly include this information within the evaluation plan.	No additional costs.
2. Enbridge's evaluation plan should indicate how it plans to estimate net energy savings impacts.	Enbridge understands this may be a topic for the newly formed Evaluation and Audit Committee.	None to marginal increase due to increased administrative requirements.
4.9.2 Savings Verification Activities		
We recommend both companies provide detailed information on measure verification activities in their evaluation plans including, but not limited to, typical verification activities such as project site inspections, participant phone and mail surveys, and/or implementer and consumer documentation review.	Enbridge understands this to be an appropriate topic for the newly formed Evaluation and Audit Committee.	None to marginal increase due to increased administrative requirements.
4.9.3 Gross Impact Evaluation Approach		
Details of deficiencies for both Enbridge and Union are discussed in the section on evaluation plans for specific offerings below.		

4.9.4 Evaluation Study Schedules		
The utilities' evaluation plans should provide at minimum rough estimates of the start and end of the scheduled evaluation activities, and consider developing more detailed, potential evaluation schedules for key evaluation activities.	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee perhaps as part of the Evaluation Contractor role.	Marginal budget increases expected due to increased administrative requirements.
4.9.5 Process Evaluation Approach		
1. Both utilities should consider initiating process evaluation activities in the first year for all new offerings and also for existing offerings that have significant program design changes such as altered incentive designs and levels, because early evaluation activities could identify problems earlier.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	Increase in budget.
2. Both utilities should consider hiring and working with evaluation contractors during the early program development and implementation period.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	Marginal budget increases expected due to increased administrative requirements.

4.9.6 Timing of Impact and Process Evaluation Study		
1. A plan to launch impact evaluation activities in the first year for each offering (or even before the start of program implementation depending on the offerings in order to collect any baseline data and set up the overall evaluation infrastructure) should be proposed), and should involve data collection activities such as measure installation, field data collection, on-site surveys, metering and monitoring, and billing data collection and preparation.	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee.	Increase in budget.
2. Both utilities should consider initiating the process evaluation earlier than they propose as early evaluation activities could identify problems sooner, which then could be used to improve program designs earlier.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	Marginal budget increases expected due to increased administrative requirements.
3. Both utilities should consider hiring and working with process evaluation contractors during the early program development and implementation period.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	Marginal budget increases expected due to increased administrative requirements.

4.9.7 Evaluation Budget		
1. Both utilities should re-evaluate their evaluation budget based upon our recommendations on various issues on their evaluation plans, in particular because our review of their evaluation plans identified a number of offerings for which no evaluation activities are proposed over the course of the next five years.	Enbridge put forth an evaluation plan and related spending that is reasonable and appropriate given: 1) the understanding that "the Board expects to provide input on evaluation methodologies and help ensure that the operational characteristics considered will generate the data required to undertake robust and accurate evaluations" Appendix A p. 2 DSM Framework; and, 2) current impact evaluation activity creates a high level of certainty for reasonable levels of spending. If the new evaluation structure - or level of activity resulting from the new structure - creates more costs than was anticipated by the current process, these would need to be incremental to the budget dollars currently allocated in Enbridge's Plan. Note: the current budget does not account for conducting annual evaluations for each offer.	Increase in budget.
4.9.8 Cross-Offering Evaluation Studies		
1. Both utilities, or the OEB, should develop their plans to conduct various other cross offering evaluation studies such as a measure baseline study, a market characterization study, a free-ridership and spillover study, a measure life study, a non-energy benefit study, a market potential study, and a benchmarking study.	The Enbridge evaluation plan has been developed with consideration of these types of studies Exhibit B, Tab 2, Schedule 2 pages 1 and 2. Further, Enbridge understands that these may be topics for the newly formed Evaluation and Audit Committee.	Increase in budget.

2. Cross-offering evaluation studies should be joint studies initiated by the gas utilities or province-wide studies initiated by the OEB.	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee.	Marginal budget increases expected due to increased administrative requirements.
Chapter 5. Assessment of Programs and Offerings		
5.2 Cross Program Issues		
<i>Enbridge and Union</i>		
1. Both companies should consider developing an offering specifically targeting the multifamily building market segment similar to their low income multi-family offerings, or consider offering a single point-of-contact or one stop shopping dedicated to the multifamily market segment so that customers interested in implementing energy efficiency measures for their multi-family buildings could explore various types of offerings and incentives through a single point-of-contact.	Enbridge currently provides many of its offerings to the multifamily building market and will continue to do so going forward.	Marginal budget increases expected due to increased administrative requirements.
2. Both utilities should provide customers with zero or low interest financing to address lack of funding, one of the major barriers identified by Enbridge.	Enbridge supports and has committed to further research and engagement with the Board and Stakeholders in this area.	Increase in budget.

3. Both utilities should develop a residential product offering to promote the installation of high efficiency space heating and water heating equipment. This type of program is essential especially when the homeowners' HVAC equipment has failed or broken and they need to replace the equipment immediately.	Although Enbridge currently does have a high efficiency furnace in the Home Energy Conservation program, Enbridge regularly reviews and assesses new technologies that may be appropriate for its offerings and its portfolio.	Increase in budget.
<i>Union</i>		
1. Union should develop a commercial new construction offering similar to Enbridge's new construction offering.	N/A	N/A
5.3 Residential Resource Acquisition Programs		
5.3.2 Single-Family Retrofit		
<i>Enbridge</i>		
1. Enbridge should remove the requirement that customers must install at least two DSM measures to participate in the offering. Customers seeking to install one DSM measure at a time should not be turned away from the program.	Enbridge disagrees with this recommendation. The current program design, and in particular its pursuit of deep savings, is appropriate and responsive to the Board's direction through the Framework.	Increase in budget, as implementation would likely be in addition to pursuit of deep savings; as opposed to in lieu of deep savings.

2. Enbridge should focus not just on higher income homes, but on moderate income homes as well.	Enbridge is proposing to offer its HEC program franchise-wide, and does not limit eligibility based on income. Enbridge has relaxed its focus on income targeting, and has committed to marketing the offering to a broader base.	At proposed target levels, no increase in budget.
3. Enbridge should increase the offering incentive cap to be greater than \$2,000. For example, Enbridge could be consistent with Union's incentive cap of \$5,000.	Enbridge is not specifically opposed to increasing incentives. However, higher incentives accompanied with higher targets would have a significant impact on the overall DSM budget. Enbridge believes that its proposed targets in conjunction with the proposed level of incentives is responsive to the Board's direction and appropriate for the Ontario marketplace.	Significant increase in budget.
4. Enbridge should reconsider its tiered incentive structure, and consider offering a sliding scale incentive structure that should start at a lower savings level than the current 15 percent savings. This would to accommodate some customers that could just install one measure at a time.	Enbridge believes that its proposed incentive levels are appropriate, however, would be open to alternative suggestions. It should be noted that the Company's proposal for incentives was in part the product of engagement with stakeholders. 1) Enbridge does not believe that the lower bound threshold should be lower than 15% as the design of the offering is to driving for deeper savings.	Increase in budget.

5. If Enbridge continues to offer a tiered incentive structure or offers a sliding-scale incentive, then it should lower the amount of savings required to achieve the various incentive levels or increase the level of incentives. As currently structured, a customer is required to achieve a significant reduction in usage in order to receive a relatively limited incentive amount.	See response to recommendation 5.3.2, Enbridge part 4.	Increase in budget.
6. Enbridge should consider providing incentives such that they are structured on a per square-foot basis, or on a percentage-of-total-project-cost basis for insulation measures. In addition, it should provide prescriptive incentives for other measures similar to Union's incentive structures. Such a structure provides flexibility to the customer, thereby allowing households of different sizes, shapes, and energy consumption to participate	Enbridge does not agree with this recommendation. Enbridge believes its offering and incentives are structured appropriately.	Increase in budget.
7. Enbridge should provide the required home energy audits at no cost to the customer.	Synapse has misunderstood the HEC program. Enbridge's program offsets a significant portion of the pre-program audit. Once the customer elects to participate in the offering, Enbridge's program provides additional money to additionally offset the cost of the post-program audit. Enbridge believes this design encourages audits at a minimum, as well as incenting participation in the offering.	No additional costs.

8. Enbridge should provide additional measures as part of this offering, such as faucet aerators, showerheads, programmable or adaptive thermostats, lighting measures, or smart strips. Such an offering ensures a holistic approach to program savings.	The HEC offer is not intended to be a simple rebate program. Enbridge does not believe that it would be appropriate for the gas utilities to utilize natural gas ratepayer funding to fund electric conservation measures. As a point of note, the Contractor workforce does educate consumers on these measures, however.	Increase in budget.
9. Enbridge should include in its impact evaluation plan a proposal to conduct a billing analysis for this offering.	Enbridge disagrees with this recommendation, as this offer focuses on improving building stock. Enbridge's view is that without a significant number of assumptions a billing analysis will yield results that do not appropriately represent the effects of the changes in building stock. For example, changes in behaviour must be controlled for to conclusively determine the impacts on consumption as a result of the offer. Failure to apply this normalization of non-stock components may lead to faulty conclusions about the efficacy of the program.	Increase in budget.
10. Enbridge should adopt Union's survey approach for its process evaluation.	Where it was not already intending to do so as a regular course of business, Enbridge agrees to consider adopting Union's survey approach in its process evaluation practices.	Increase in budget.

11. Enbridge should conduct any desk review of program records, data tracking systems, and materials such as marketing materials, training documents, and program manuals.	Enbridge currently undertakes this recommendation as part of its regular business activity. Enbridge recognizes that it may not have adequately articulated this practice in its pre-filed evidence.	No additional costs.
<i>Union</i>		
1. Union should consider providing incentives such that they are structured on a per square- foot basis, or on a percentage-of-total-project-cost basis. Such a structure provides flexibility to the customer, thereby allowing households of different sizes, shapes, and energy consumption to participate.	N/A	N/A
2. Union should provide the required home energy audits at no cost to the customer.	N/A	N/A
3. Union should provide additional measures as part of this offering, such as faucet aerators, showerheads, programmable or adaptive thermostats, lighting measures, or smart strips. Such an offering ensures a holistic approach to program savings.	N/A	N/A
4. Union should include in its impact evaluation plan a proposal to conduct a billing analysis for this offering.	N/A	N/A

5. Union should conduct any desk review of program records, data tracking systems, and materials such as marketing materials, training documents, and program manuals.	N/A	N/A
5.3.3 Residential Products		
<i>Enbridge and Union</i>		
1. Both Enbridge and Union could conduct a pilot study to explore the reliability and cost effectiveness of emerging measures suitable for the Energy Savings Kit offering that could replace any potentially obsolete efficiency technologies.	Enbridge is not opposed to continuous review and study of emerging technologies for its residential sector, and most assuredly undertakes this activity as part of its regular course of business.	Increase in budget.
2. Both Enbridge and Union should investigate the reliability and cost-effectiveness of emerging showerheads, and consider incorporating such showerheads into their new pilot study or existing offerings.	Enbridge is skeptical as to customer interest in a lower flow showerhead than has been provided in the past given its long experience with low flow showerheads and high removal rates. As stated above, Enbridge actively reviews emerging technologies, and would consider including them in offers in the future, where it may make sense to do so.	Increase in budget.
3. Both Enbridge and Union should consider partnering with electric utilities that offer incentives for similar thermostat measures, and ensure that the incentive amounts provided to customers are consistent between fuel types.	Enbridge will continue to explore opportunities for collaboration.	No additional budget.

Enbridge		
1. Enbridge should consider increasing the Adaptive Thermostat incentive to the equivalent of at least \$100 while evaluating both customer adoption rates for this type of measure and customer payback rates.	Enbridge is not opposed to higher incentives; however, this recommendation would result in significant additional budget impacts.	Increase in budget.
2. If Enbridge intends to use the TRM for its savings estimate claim, we recommend that Enbridge clearly states its intention in the plan.	Enbridge accepts this recommendation noting that it felt it had captured that assumption in its evaluation plan Exhibit B, Tab 2, Schedule 2, but could in future include specific information in the offer evaluation plan as appropriate.	No additional costs.
3. Enbridge's evaluation plan should include an Ontario-specific impact evaluation study on adaptive thermostats as existing impact evaluation studies are finding a significant level of natural gas savings ranging from 10 percent to 12 percent of annual heating consumption.	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee as part of the function for the Evaluation Contractor.	Increase in budget.
4. Enbridge should also conduct a survey of non-participants in its process evaluation in order to find out reasons for not participating in the offering. To the extent this offering requires Enbridge program staff or contractors to interact with customers to promote and/or install adaptive thermostats, Enbridge should also survey program staff and/or contractors.	As part of its regular business activity and internal review, Enbridge agrees with this recommendation with consideration of resources and priority in a given year.	Increase in budget.

<i>Union</i>				
	N/A	N/A	N/A	N/A
1. Union should provide an incentive for adaptive thermostats so that new technologies with higher savings potentials are available for customers looking to adopt them.				
2. Union should consider providing incentives for measures other than thermostats and instant hot water saving measures to ensure that all customers are served by a range of DSM technologies and to increase participation.	N/A	N/A	N/A	N/A
3. Union should conduct a literature review of standard thermostats and consider whether to discontinue this offering, or include a plan for the OEB to conduct a full impact evaluation study on this measure if it still believes there might be some savings impacts.	N/A	N/A	N/A	N/A
4. It might be beneficial to conduct a limited scale process evaluation study by piggybacking on Union's savings verification efforts and ask additional process related questions such as a question regarding the penetration rates of Energy Savings Kit measures.	N/A	N/A	N/A	N/A

5.4 C&I Resource Acquisition Programs			
5.4.2 C&I Prescriptive			
<i>Enbridge</i>			
1. Enbridge should provide a list of all of the eligible measures under its prescriptive offering.	In its Plan at Exhibit B, Tab 2, Schedule 6 Enbridge provides reference to the fact it has used the TRM measures for its filing.	No additional costs.	
2. Enbridge should present the proposed incentives as well as its payback analyses for this offering.	Enbridge has provided the proposed incentives within the body of the record. As noted for the record, the Company does not support the inclusion of payback periods, given that this will require too many assumptions to render meaningful conclusions.	No additional costs.	
3. Enbridge should explore an upstream incentive option as proposed by Union. This approach is an emerging incentive structure that could potentially have a substantial impact on the uptake on C&I energy efficiency measures.	Enbridge has explained throughout the body of the record that it will explore this channel further going forward.	Uncertain..	
4. Enbridge should provide detailed information on its marketing strategy by emulating Union's filing.	Enbridge has explained its marketing approaches throughout the body of the record. Specifically for this offering, Enbridge has indicated that marketing will include promotion through Energy Solutions Consultants, and indirectly through various channels such as HVAC contractors, engineering firms, distributors, and manufacturers, as well as through mass media, internet, and tradeshow.	No additional costs.	

5. As proposed by Union, Enbridge should also explore program coordination opportunities with LDCs as part of its process evaluation.	Enbridge is exploring collaboration opportunities with LDCs and will do so additionally through its process evaluation work.	No additional costs.
6. Enbridge should also include non-participants as part of their process evaluation.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	Increase in budget.
7. Enbridge should conduct a review of program materials and records.	Enbridge conducts such reviews as a part of its regular business practices.	No additional costs.
<i>Union</i>		
1. Union should provide the proposed incentive levels and also provide more detailed information on its payback analysis for its offering.	N/A	N/A
2. Union's evaluation plan should include an impact evaluation plan similar to Enbridge's plan.	N/A	N/A
3. Union should conduct a review of program materials and records as part of their process evaluation.	N/A	N/A

5.4.3 C&I Custom		
<i>Enbridge and Union</i>		
1. Both utilities should provide in their evaluation plans more detailed information regarding how project installation data are verified (eg., site inspection, phone surveys, application review) and how gross savings are measured (e.g. IPMVP, billing analysis).	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee.	No additional costs.
<i>Enbridge</i>		
1. For the Custom Commercial offering, we recommend Enbridge consider setting the incentive tiers at a more granular scale, for example by increasing the level of incentive for each 5 percent increase in savings or on a sliding scale. We also recommend that Enbridge make it clear what the actual savings thresholds are between the tiers. As is written, it is not clear what the level of incentive is for 10 percent energy savings.	Enbridge does not agree with this recommendation. Enbridge believes its incentives are structured appropriately. Enbridge proposed its incentives on the basis of its experience as well as input from stakeholders and customers.	Uncertain.
2. Enbridge should use a payback criteria to screen out free riders for their C&I custom offerings. Given that the payback thresholds from the example programs are also mainly for custom C&I projects, a threshold of one to three years may be appropriate.	Enbridge disagrees and does not see this as a best practice, nor is it consistent with achieving “all-cost effective” DSM in the market.	Increase in budget.

3. In line with the best practices discussed in Chapter 4, Enbridge should also survey non-participants and program administrator staff for the proposed process evaluation study.	As part of its regular business activity and internal review, Enbridge agrees with this recommendation with consideration of resources and priority in a given year.	Increase in budget.
4. For the proposed process evaluation, Enbridge should review simple payback years for each participation and investigate what level of payback threshold is reasonable for the purpose of reducing free riders.	Enbridge disagrees with this approach.	Marginal budget increases expected due to increased administrative requirements.
5.4.4 Small Business Direct Install: Recommendations		
Enbridge		
1. Enbridge should offer similar incentives for small business customers to install adaptable thermostats as it proposes for its residential customers. As part of the turnkey solution, Enbridge should facilitate the processing of rebates for this measure when participants are interested in implementing it.	Enbridge is not opposed to offering adaptive thermostats to commercial customers provided it can be done cost effectively. This may have a significant budget impact.	Increase in budget.
2. Enbridge should conduct a process evaluation to investigate the need for offering other low cost measures such as aerators, showerheads, and tank wraps.	Process evaluation falls within Enbridge's regular business activity and internal review. Enbridge agrees with this recommendation with consideration of resources and priority in a given year.	Increase in budget.

3. Enbridge should provide more detailed information as to how the impact evaluation should be conducted for this offering.	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee.	No additional costs.
4. For its proposed process evaluation, Enbridge should add the following specific activities: a. Interview Enbridge's program administrator staff in addition to participants and contractors. b. Investigate offering delivery specifics including program materials (e.g., marketing materials and tracking database), marketing practices, standardization of offers, audit procedures, invoicing and tracking procedures, and QA/QC	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	Marginal budget increases expected due to increased administrative requirements.
5.4.5 Small Commercial New Construction (Enbridge Only)		
<i>Enbridge</i>		
1. Enbridge should reduce its proposed performance-based incentive level to \$0.50/m3 or lower.	Enbridge does not agree with this recommendation. Enbridge believes its incentives are structured appropriately. Enbridge proposed its incentives on the basis of its experience as well as input from stakeholders and customers.	Decrease in budget. With lower incentive level, the target must also be reduced significantly.

2. For the small commercial new construction offering, Enbridge should consider adopting on-line marketing tools to generate phone calls from users as a follow-up to determine qualification for participation in the program.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	No additional costs.
3. Enbridge should follow best practices by providing public recognition for successful projects. Enbridge should also consider linking its Energy Leaders Initiative offering to the Small Commercial New Construction offering.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	No additional costs.
4. Enbridge should conduct a process evaluation early in the program cycle, ideally in the first year.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	Marginal budget increase.
5. Enbridge's evaluation plan should include impact evaluation plan.	It is Enbridge's understanding that pilots – recognizing this offer is a pilot - forms the basis for its impact evaluation.	No additional costs.
5.4.6 Energy Leaders Initiative		
<i>Enbridge</i>		
1. Enbridge should consider linking the Energy Leaders Initiative offering to Enbridge's new construction offerings, including the Small Commercial New Construction offering and the Savings by Design.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	No additional costs.

2. Enbridge should conduct a process evaluation early in the program cycle, ideally in the first year.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	Marginal budget increases expected due to increased administrative requirements.
3. Given this is a new offering, Enbridge should conduct a process evaluation early in the program cycle, ideally in the first year.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	Marginal budget increases expected due to increased administrative requirements.
4. Enbridge's plan should include impact evaluation plan.	Enbridge understands this impact evaluation related recommendation to be an appropriate topic for the newly formed Evaluation and Audit Committee with consideration of resources and priority in a given year. However, it should be noted that evaluation of this offer falls within the custom offer evaluation plan.	No additional costs.
5.5 Low Income Programs		
5.5.2 Low Income New Construction		
<i>Enbridge</i>		
1. Enbridge should roll out as a full offering, rather than as a pilot, the Low Income New Construction offering.	Enbridge's filing clearly outlines this recommendation is already in place.	No additional costs.

2. Without further substantiation of the usefulness of the street poster marketing approach, Enbridge should consider redirecting funds for these posters to other marketing opportunities.	Enbridge will market the offer appropriately to achieve successful results.	No additional costs.
3. Enbridge should clearly state how IDP documents are used to establish estimated savings, and how it intends to verify the claimed savings.	Enbridge can seek to include additional information in future filings.	No additional costs.
4. As this is a new pilot, it should conduct a process evaluation study and identify the effectiveness of the proposed incentives and delivery mechanisms and areas for improvements.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	No additional costs.
<i>Union</i>		
1. A comprehensive suite of low income offerings should include Low Income New Construction, Low Income Single-Family and Low Income Multi-Family offerings, which are referred to as core offerings in this section. Union should provide a Low Income New Construction offering. This offering should be consistent with Enbridge's program, including the recommendations above.	N/A	N/A

5.5.3 Low Income Single Family			
<i>Enbridge and Union</i>			
1. If they do not do so already, Enbridge and Union should consider performing a blower door test, using infrared thermography, and conducting combustion analysis, draft testing, and combustion appliance zone tests in audits.	Enbridge currently undertakes many of noted verification tests. Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee.	No additional costs.	
2. Enbridge and Union should consider adding early replacement measures, heating equipment repairs, boilers, water heaters (including tankless and solar hot water), windows, duct sealing, duct insulation, and boiler reset control measures to their offerings.	Enbridge conducts ongoing assessments of the cost-effectiveness and appropriateness of including additional technologies to the Low-Income market. Most of the measures included in the recommendation have been considered and were found to be not cost effective.	Increase in budget.	
<i>Enbridge</i>			
1. Enbridge should also consider adding pipe wrap to its offering.	Enbridge disagrees with this recommendation.	Increase in budget.	
2. Enbridge should consider offering incentives to address as many of the health and safety barriers to weatherization as possible.	Enbridge is committed to tracking and exploring ways of working through health and safety barriers.	Increase in budget.	

3. If Enbridge plans to rely on the forthcoming TRM, it should clearly state so. However, as energy savings are expected to be significant (e.g., exceeding 10 percent), we recommend using an energy billing analysis on a sample of offering participants.	In the body of its evidence, Enbridge provided reference to input assumptions provided on the public record. Going forward, Enbridge could more explicitly include this information within the evaluation plan. Enbridge disagrees with this recommendation, as this offer focuses on improving building stock. Enbridge's view is that without a significant number of assumptions a billing analysis will yield results that do not appropriately represent the effects of the changes in building stock. For example, changes in behaviour must be controlled for to conclusively determine the impacts on consumption as a result of the offer. Failure to apply this normalization of non-stock components may lead to faulty conclusions about the efficacy of the program.	Increase in budget.
4. Enbridge should include in its survey plan non-participants or administrative staff as surveyees.	Where it was not already intending to do so as a regular course of business, Enbridge agrees to ensure it considers surveying non-participants or administrative staff in its process evaluation practices.	Marginal budget increase.
5. Enbridge should make sure that it conducts a review of program materials and tracking records in its proposed process evaluation study.	Enbridge conducts such reviews as a part of its regular business practices.	No additional costs.

<i>Union</i>		
1. Instead of waiting for the Aboriginal offering to start before beginning its process evaluation, Union should start its evaluation as early as possible in the first year of the low income weatherization offering.	N/A	N/A
2. Instead of the proposed energy modeling analysis, Union should propose a plan for the OEB to conduct a billing analysis as historical consumption data exist and expected energy savings are likely to be substantial.	N/A	N/A
3. Union should conduct a review of program materials and tracking records in its proposed process evaluation study.	N/A	N/A
5.5.4 Low Income Multi-Family		
1. Enbridge and Union should consider adding early replacement measures, heating equipment repairs, furnaces, water heaters (including tankless and solar hot water), windows, programmable thermostats, duct sealing, duct insulation, boiler reset control measures and pipe wrap to their offerings.	Enbridge conducts ongoing assessments of the cost-effectiveness and appropriateness of including additional technologies to the Low-Income market. Most of the measures included in the recommendation have been considered and were found to be not cost effective.	Increase in budget.

2. Leverage the existing Low Income Multi-family Working Group to discuss providing a single point of contact for building owners, financing options to augment and/or reduce incentives over time, and a more flexible audit structure to improve program cost effectiveness. Improved cost effectiveness may free up some funds, enabling the working group to consider providing additional program oversight and support to building owners. This would in turn mitigate costs by improving project completion rates.	Enbridge meets frequently with the Low Income Working Group. Enbridge is amenable to developing coordinated messages, but has not found that somewhat different offerings have caused any measurable market confusion.	Marginal budget increase.
3. Enbridge and Union should provide reasonably consistent custom incentive offerings, unless differences are merited and explained in plans. Enbridge	Enbridge's incentive structure stems from historical learnings and the evolution of its franchise area. Enbridge attributes a high value in offering enhanced incentives to this vulnerable market segment and would not be comfortable reducing incentives to the match those offered by Union Gas.	Marginal budget increase.
1. Enbridge should clarify whether it plans to offer high efficiency boilers as both a prescriptive and custom measure.	Enbridge currently offers boilers to Low Income Multi-residential on a custom basis.	No additional costs.

Enbridge

2. In order to find answers to its research issues in its evaluation plan, Enbridge should conduct a process evaluation and investigate the issues.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	No additional costs.
<i>Union</i>		
1. Union should roll out as a full program, rather than as a pilot, its Low Income Multi- Family offering.	N/A	N/A
2. Union should offer an incentive for operational improvements, similar to Enbridge.	N/A	N/A
3. In its process evaluation, Union should also interview participating contractors and offering delivery agents to gain a holistic view on the effectiveness of this offering, including how tenants are benefiting from the offering.	N/A	N/A
4. Union should conduct a review of program materials and tracking records in its proposed process evaluation study.	N/A	N/A

5.5.5 Aboriginal Offering		
<i>Enbridge</i>		
1. If Enbridge has Aboriginal groups in its service territory, Enbridge should consider offering this program, in coordination with Union, to Aboriginal groups.	Should Enbridge in the future have any Aboriginal communities in its service territory, then yes, Enbridge would seek to collaborate with Union and applicable LDCs to include such an offering within its portfolio. In the meantime, Aboriginal populations within Enbridge's franchise area are of course able to participate in any suitable offering within Enbridge's current portfolio.	N/A
5.5.6 Furnace End-of-Life Upgrade Offering		
<i>Union</i>		
1. Consider moving this program within the core low income offerings, similar to Enbridge.	N/A	N/A
5.6 Residential Market Transformation Programs		
5.6.2 Residential New Construction		
<i>Enbridge</i>		
1. Enbridge could consider expanding its marketing to other stakeholders and decision makers in the new construction market, including architects, developers, contractors, and homebuyers.	An example of Enbridge's marketing efforts with stakeholders in the new construction market includes Savings by Design, whose Integrated Design Process already brings together architects, developers, and contractors.	Marginal budget increase.

2. Enbridge should consider whether it is an appropriate use of program spending to incent builders for up to 50, 100, or 200 energy efficient homes, or whether fewer homes would be as effective.	Enbridge disagrees with this recommendation, as its experience with new construction customers indicates incenting the construction of fewer homes would not produce the market transformation Enbridge is looking to achieve.	Decrease in budget.
3. Enbridge could provide additional services related to technical training during the design/build process.	Through the Integrated Design Process of the Savings by Design offering, builders and developers are linked to technical experts who in turn will work with builders throughout the build process to show them how to get 25 or 15% above code. Therefore, technical training is already done as part of the program.	No additional costs.
4. Enbridge should follow Union's survey plan for its process evaluation and include homeowners, non-participating builders, program staff, and consultants as surveys.	Enbridge agrees to ensure it considers surveying homeowners, non-participant builders, program staff and consultants in its process evaluation practices.	Increase in budget.
5. Enbridge should make sure that its process evaluation plan includes a review of program materials and reporting.	Enbridge conducts such reviews as a part of its regular business practices.	No additional costs.
<i>Union</i>		
1. Union should not turn away builders that are not already enrolled in the program, as doing so would create lost opportunities.	N/A	N/A

2. Union should commit to continuing support of a new construction offering, whatever the new design may be with the new building code.	N/A	N/A
3. Union should make sure that its process evaluation plan includes a review of program materials and reporting.	N/A	N/A
5.6.3 Residential Behaviour		
<i>Enbridge</i>		
1. Enbridge should work with OPower to ensure they have the customer data needed to individualize the reports to the extent practicable.	Household-specific data is already required to provide individualized reports in the My Home Health Record offering.	No additional costs.
2. Enbridge will need to ensure that the emailed reports are actually received by the recipients, and are not captured in email junk mail filters.	OPower has a proven track record in ensuring electronic reports are received by customers who elect electronic communications. A performance standard for OPower includes ensuring that these reports are received by customers.	No additional costs.
3. Enbridge should assess the offering budget to determine whether it can be reduced, or should at least justify the seemingly high amount budgeted for this offering.	Enbridge has provided detailed pricing information. Postal rates in Canada are higher than in the US, and OPower has given us permission to state that EGD has achieved its lowest ever data analytics cost per customer due to the scale at which we are proposing to roll out the offer.	No additional costs.

4. Enbridge's evaluation plan should follow the impact evaluation approach proposed by Union.	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee.	Increase in budget.
5. Enbridge's survey plan should also include offering delivery agents (e.g., Opower) as well as non-program participants.	Enbridge agrees to ensure it considers surveying delivery agents and non-program participants in its process evaluation practices.	Increase in budget.
6. Enbridge should also conduct a review of offering materials and reporting.	Enbridge conducts such reviews as a part of its regular business practices.	No additional costs.
<i>Union</i>		
1. Union should provide the Board with an update on the specific offering details once a vendor has been selected, which should include identification of any changes to the program description included in the current plan.	N/A	N/A
2. Union should assess the offering budget to determine whether it can be reduced, or should at least justify the seemingly high amount budgeted for this offering.	N/A	N/A
3. Union should conduct a process evaluation study particularly because its behavior offering is new.	N/A	N/A

Home Rating		
<i>Enbridge</i>		
1. Enbridge should detail the actions it expects to take within this offering so as to determine whether such activities are an appropriate use of program spending.	The anticipated actions that will be taken in the Home Rating offering are outlined in Enbridge's proposed DSM Plan in exhibit B, Tab 2, Schedule 1, page 71-75.	No additional costs.
2. Enbridge should conduct a billing analysis on a sample of offering participants to verify energy savings to the extent the savings are expected to be substantial.	Enbridge disagrees that billing analysis of a sample of offering participants is appropriate for this offering. Though improved energy efficiency is the ultimate goal of all DSM offerings, participation in the offering is the metric for Home Rating, not energy savings.	Increase in budget.
3. Enbridge could investigate whether providing an incentive to homeowners and/or real estate agents that complete a home energy label prior to the sale of the home would increase adoption of home labeling. Its process evaluation study is an appropriate place for this investigation.	Enbridge disagrees with this recommendation. However, on a go-forward basis agrees to consider this further as part of its offering reviews and process evaluation.	Increase in budget.
4. Enbridge should include other key players as surveyees, in particular real estate agents and program administrator staff.	Enbridge agrees to ensure it considers surveying delivery agents and non-program participants in its process evaluation practices.	Increase in budget.

5.7 C&I Market Transformation Programs		
5.7.2 Commercial New Construction		
Enbridge		
1. Enbridge should set the incentive toward energy modeling at a certain percentage of the total modeling cost (Nowak, Kushler, Witte, & York, 2013).	Enbridge disagrees with this recommendation. In Enbridge's experience, paying for the cost of the modeling is the most important part of enticing builders into the program. The cost of the modeling is cost effective and included as part of the total offering incentive.	Decrease in budget. With lower incentive level, the target must also be reduced significantly.
2. Enbridge should offer performance incentives for both building design teams and building owners under its Commercial Savings by Design offering. We also recommend Enbridge consider adopting tiered or sliding-scale incentives.	Savings by Design' Integrated Design Process covers the cost of bringing together relevant players (architects, develops, contractors) and provides an allowance for builders to include members of their staff to join the design team. In consultation with participants, Enbridge has learned that performance-based incentives would not be substantial enough to entice them to participate.	Increase in budget.
3. Enbridge should offer a similar financial assistance for projects achieving net-zero energy buildings or deeper energy savings.	Enbridge is not opposed to exploring how it can further encourage achievement by customers of deeper energy savings, and continues to consider its approach to Net Zero projects.	Increase in budget.

4. Enbridge should provide public recognition to successful projects in this Commercial Savings by Design offering in accordance with best practices in new construction programs. We also recommend Enbridge consider linking the Energy Leaders Initiative offering to this offering.	In addition to feature vignettes provided already on the Savings by Design website, Enbridge is amenable to providing further recognition of successful participants. Enbridge actively monitors participants in a number of offerings, including Commercial Savings by Design, for possible enrollment into the Energy Leaders Initiative.	No additional costs.
5. Because the commissioning step is an integral aspect of new construction, Enbridge's proposed new offering should be part of the Commercial SBC offering so that every new construction project participating in the SBC will have an opportunity to enhance their commissioning initiatives.	Commercial Savings by Design participants are not prohibited from participating in Phase 1 or 3 of the commissioning process, but Phase 2 is already a required step for every Saving by Design participant.	No additional costs.
6. Enbridge should provide more detailed information on their impact evaluation plans for both commercial new construction offerings. Enbridge should propose for the OEB to review all key project data and verify modeled energy savings.	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee.	No additional costs.
7. Enbridge should also include a plan for the OEB to examine to what extent the new commissioning offering leads to additional savings.	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee and in particular part of the function for the Evaluation Contractor.	Increase in budget.

8. We recommend Enbridge consider including in its survey and interview plan other market and program actors including non-participants, offering delivery agents, and program administrator staff. Enbridge should also review program materials and reporting data.	Enbridge agrees to ensure it considers surveying delivery agents and non-program participants in its process evaluation practices. Enbridge conducts program material and reporting data reviews as a part of its regular business practices.	Increase in budget.
5.7.3 Commercial Behaviour		
<i>Enbridge</i>		
Energy Compass and Small Commercial & Industrial Behavioural		
1. Enbridge should conduct process evaluation studies to evaluate the effectiveness of these two offerings. Enbridge should particularly investigate to what extent the offerings increase participation rates in other DSM offerings and programs, as this is one of the core goals for the offerings.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	Increase in budget.
Energy Compass		
1. Enbridge should provide evidence that Energy Compass has successfully increased participation in other efficiency offerings.	With a new IT system as proposed in this application, Enbridge would be in a good position to enable this type of information gathering, possibly as a component of a process evaluation.	Increase in budget.

Small Commercial & Industrial Behavioural		
1. Enbridge should provide budget information for this offering.	This offer is being proposed as a pilot program for the 2016-2017 heating system. The Company will provide the results of the pilot program in time for the mid-term review.	No additional costs.
2. Enbridge should ensure that OPower has the customer data needed to individualize the reports, including information on type of industry and major energy uses.	Enbridge will ensure the vendor has the appropriate information necessary.	No additional costs.
3. If Enbridge wants to claim savings from this offering, Enbridge should propose a plan for the OEB to engage an external independent evaluator for the pilot very early in the process and allow that evaluator to conduct a randomized control trial to randomly assign customers to treatment and control groups.	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee.	No additional costs.
5.7.4 Schools		
<i>Enbridge</i>		
1. Enbridge should indicate how goals would be set and who would set them.	Enbridge is in the process of undertaking pilots. Enbridge will address how to set goals and implement them. Enbridge has already engaged in preliminary dialogue with the Ministry of Education and certain school boards.	No additional costs.

2. The offering should explicitly encourage participation by diverse groups of students, members of the faculty and administration, and building operators.	Enbridge will ensure that members of faculty, administration, and building operators will be engaged as appropriate to ensure that the offering is effective and savings results can be attained. However, Enbridge will retain its focus on engaging students as its primary focus.	Increase in budget.
3. The offering should be coupled with other enabling strategies or offerings so that identified opportunities result in a wider range of measures, to make full use of metering and energy management system capabilities.	Enbridge will ensure that members of faculty, administration, and building operators will be engaged as appropriate to ensure that the offering is effective and savings results can be attained. However, Enbridge will retain its focus on engaging students as its primary focus.	Marginal budget increase.
4. Enbridge's evaluation plan should include an impact analysis.	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee.	Increase in budget.
5. The process evaluation for the School Energy Competition should include investigation of its effect on participation in other DSM offerings, participants' use of the energy management system, and effectiveness of materials. It can do this through interviews with key persons in participating schools, implementation contractors, and program administrator staff, and through review of records, educational materials, marketing materials, and the energy management system.	Enbridge agrees with this recommendation and notes that it will undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	Increase in budget.

6. To the extent that the School Energy Competition will reduce electricity consumption, Enbridge should consider coordinating with electric distribution companies on this offering.	Enbridge agrees with this recommendation and will continue to explore opportunities for coordination and collaboration with local distribution companies.	Marginal budget increase.
5.8 Large Volume Customers Program		
<i>Union</i>		
1. To ensure that recommended measures are implemented, Union should (a) if a customer does not implement the recommendations from the technical assistance, then Union should collect the costs for the technical assistance from the customer; (b) require execution of an agreement including customer energy savings commitments, and/or (c) require implementation of all recommended measures that meet certain conditions (e.g., a payback period of 1.5 years or less).	N/A	N/A
2. It would be appropriate to at least conduct a process evaluation to examine the effectiveness of this offering and identify any modifications for offer training, specialized technical support, and audits by qualified Union Professional Engineers.	N/A	N/A

5.9 Performance-Based and Market Transformation Programs

5.9.2 Retro-commissioning

Enbridge

1. Enbridge should consider requiring that participants implement identified measures with a very short payback (e.g., 1 year or less) without any utility financial incentive, to screen out free riders.	Enbridge does not agree with this recommendation. As noted on the record, Enbridge believes including a payback criterion as an eligibility requirement is problematic because it presumes that a customer will automatically undertake the project. As explained, this has not been Enbridge's experience for the following reasons: • Customers have many competing priorities • Ignores other reasons customers do not undertake projects (risk, reliability, quality, trust in the technology) • Subjects DSM projects to potentially volatile cost of gas • Customer dissatisfaction with having to walk away from customers under a variety of circumstances • Customers aren't even aware in many cases what alternatives are available to them Payback analysis is not reflective of a proper investment analysis – ignores time value of money and future cash flows	Increase in budget.
2. Enbridge should consider redesigning the incentive structure consistent with common models by implementing a mechanism to ensure energy performance improvement.	Enbridge's plan and incentives are not inconsistent with others. This program provides funding for implementation of selected operational improvements, similar to Enbridge's Run it Right.	Increase in budget.

3. Enbridge should provide information about the EMIS, and charges after the first 12 months. It should also consider redesigning the offering to ensure longer-term savings.	Enbridge will take this recommendation under advisement noting that savings will vary by project, and costs will vary according to the measure(s) installed.	Increase in budget.
4. Enbridge should provide estimates of participation, savings, and payback at the offering level.	As Enbridge has explained throughout the record, Enbridge expects savings from operational / behavioural changes to be in the 2-3% range. There may be other capital opportunities identified that would be addressed through other offerings (such as the DI, Custom, etc.). Participation levels are expected to begin at 75 in 2015 and trend upwards to about 115 by 2020. EGD cannot provide a payback analysis because of the wide and varied circumstances experienced by a wide and varied customer group. Savings will vary by project, and costs will vary according to the measure(s) installed.	No additional costs.
5. Enbridge's evaluation plan should include an impact evaluation based on the IPMVP Option c.	Currently, Enbridge conducts pre- and post-retrofit billing analysis, but does not follow IPMVP Path C. Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee.	Increase in budget.
6. Enbridge should propose a plan for an evaluation contractor to conduct appropriate measure installation verification activities including desk review of project files and onsite inspection on a sample of projects, as discussed in the Cross Offering Evaluation Issues section above.	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee and in particular part of the function for the Evaluation Contractor.	Increase in budget.

7. Enbridge should conduct the following process evaluation tasks: (a) reviews of records, materials, tools, etc., (b) interviews and discussions with program management and staff, implementing contractors, subcontractors, and field staff, and (c) interviews, discussions, surveys and/or focus groups with participants and non-participants.	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	Increase in budget.
<i>Union</i>		
1. Union should clarify whether or not savings as a result of capital investments would count towards eligible savings.	N/A	N/A
2. Union should consider a more aggressive participation goal.	N/A	N/A
3. Union should consider taking into account occupancy and any other important factors to adjust billing meter data.	N/A	N/A
4. We recommend Union propose a plan an evaluation contractor to conduct on-site audits and inspect operating conditions and installed equipment on a sample of projects.	N/A	N/A

5. Union should conduct a process evaluation study as a way to identify opportunities for program design and delivery improvement in line with the best practices that are recommended for Enbridge above.	N/A	N/A
5.9.3 Strategic Energy Management		
<i>Enbridge and Union</i>		
1. To the extent that SEM activities will save electricity consumption, both Enbridge and Union should consider exploring opportunities to coordinate with electric distribution programs.	EGD will continue to seek out opportunities to collaborate with LDCs. Presentations and/or conversations with IESO, Toronto Hydro, EnerSource and PowerStream have taken place regarding the CEM offering.	Marginal budget increase.
<i>Enbridge</i>		
1. Enbridge should clearly indicate whether or not savings from capital improvements are excluded from the calculation of eligible savings.	Ideally, the CEM offer will help customers identify potential capital improvements available to them. To the extent that capital improvements are undertaken, these projects would be accounted for within the Custom or Prescriptive offerings, as applicable. The savings associated with such retrofit activity would not be counted as savings under the CEM offer.	No additional costs.

2. Enbridge should provide context for the size of the incentives.	The incentive structure for this offering is described in Enbridge's Exhibit B, Tab 2, Schedule 1, pages 95-96. For example, medium size customer consuming 1.5 million m3 could be eligible for the following incentives: - Monitoring system \$70,000, one time - Behavioural incentive (assume 3%) \$13,500 year-over-year if savings continue after rebasing - Training \$10,000, one time	No additional costs.
3. If financial incentives are linked to energy savings, then the program design should include elements to encourage participants to sustain energy performance improvement efforts after performance incentives are no longer provided.	Enbridge already complies with this recommendation, in that participants will be eligible to receive the proposed incentives year-over-year for the duration of the program as long as new savings initiatives are implemented. An objective for the offer is to drive towards a cultural shift towards energy management within the customer's business.	Increase in budget.
4. Enbridge should indicate in its evaluation plan whether or not savings eligible for the performance incentives would be normalized for weather and production.	Enbridge clarifies that savings would be normalized for weather and production variables.	No additional costs.
5. Enbridge should indicate in its evaluation plan that an appropriate M&V method by project will be determined based on the project boundary.	Enbridge understands that this may be a topic for the newly formed Evaluation and Audit Committee and in particular part of the function for the Evaluation Contractor.	No additional costs.

6. Enbridge should conduct the following process evaluation tasks: (a) reviews of records, materials, tools, etc., (b) interviews and discussions with program management and staff, implementing contractors, subcontractors, and field staff, and (c) interviews, discussions, surveys and/or focus groups with participants and non-participants	Enbridge agrees with this recommendation and notes that it does undertake this activity on a regular basis as part of its business operations and internal program and offering reviews.	Increase in budget.
<i>Union</i>		
1. Union should consider using a sliding scale for determining performance incentives.	N/A	N/A
2. Union should describe customer eligibility and requirements.	N/A	N/A
3. Union should indicate in its plan that an appropriate M&V method by project will be determined based on the project boundary.	N/A	N/A
4. Union should conduct a process evaluation study as a way to identify opportunities for program design and delivery improvements, according to the best practices that are recommended for Enbridge above.	N/A	N/A

Chapter 6. Shareholder Incentives		
6.2 Proposed Shareholder Incentive Scorecard and Metrics		
1. The Board should continue to allow shareholder incentive metrics that motivate the utilities to save energy and increase customer participation in the DSM programs.	Enbridge agrees with this recommendation	No additional costs.
2. The Board should consider requiring the utilities to develop metrics or other mechanisms that focus on program cost-effectiveness. Such a metric would ensure that the utilities keep costs low while achieving significant savings.	Enbridge does not agree that a separate metric is required to focus on cost effectiveness.	No additional costs.
3. The utilities' scorecard metrics should be similar to each other where practical and appropriate.	Enbridge agrees to consider this in future filings where appropriate.	Uncertain.
4. Similar to Enbridge, Union should develop separate metrics for lower and higher volume customers within the Resource Acquisition scorecard.	N/A	N/A
5. Union should include a metric within the Low Income scorecard related to increasing participation in the Low Income program.	N/A	N/A

6. Union should consider including a scorecard for the Large Volume program to ensure that the costs for that program are appropriately spent.	N/A	N/A
6.3 Performance Incentive Target Adjustments		
1. The Board should reject both Enbridge's and Union's proposed shareholder incentive target adjustment mechanisms because the overall five-year savings goal targets that the utilities are required to achieve should not be adjusted during the course of the plan.	Enbridge believes fairness should serve as a guiding principle in the establishment of its multi-year DSM plan. A best practice identified by Synapse is that the shareholder incentive not be impacted by events outside of the utility's control (p. 119). In EGD's view, the Board could either choose to hold all input assumptions constant or adjust targets during the plan term. EGD is relatively indifferent between these two choices but elected to change targets along the way as it makes use of best available information throughout the term of the plan.	Uncertain.
2. The Board should thoroughly investigate whether the initial goals (and therefore shareholder incentive targets) established during this planning process are challenging to achieve to ensure the utilities remain motivated to reach greater savings throughout the plan term.	Enbridge believes the proposed targets are very challenging, for four primary reasons: 1. The proposed targets are higher than any past results achieved in any category; 2. The proposed targets include many new offerings that have not yet been tested; 3. The potential study shows that targets are within 10% of the achievable potential outlined for our franchise area; and, 4. Taken together, Enbridge has proposed a significantly higher total volume of effort (i.e. breadth and depth of offerings) needed to achieve its targets.	No additional costs.

Chapter 7. Coordination between Gas and Electric Programs

1. Both companies should take a more pro-active role to lead the way for more electricity and gas DSM coordination, in particular in (a) coordinating among themselves; (b) identifying those programs that are most suited to electricity and gas coordination; and (c) offering standard program design templates that electric utilities could select from.

Enbridge recognizes that more collaboration is an important objective in the evolution of DSM. In its report, Synapse acknowledges the policy environment in Ontario is especially difficult to navigate. Examples of barriers to collaboration include the following:

- There are no gas/electric utilities in Ontario;
- Administrative processes between electric and gas are very different;
- There are over 70 electric utilities, each with their own interests and priorities, and only 2 gas utilities;
- Discrepancies (at times very significant) exist in customer incentives, budgets, savings methodologies, attribution factors; and
- Objectives and metrics between electric and gas are not always aligned (e.g. LDCs focus on kWh while gas utilities focus on CCM and participants counts);

Other issues with respect to collaboration include:

- Legal contracts governing relationships;
- Sharing of customer information
- Distribution of costs and distribution of claimed savings.

Enbridge will continue to pursue opportunities to engage and consult both the IESO and LDCs directly to advance these important discussions.

Increase in budget.

2. With regard to coordinating among themselves, both companies should identify program design issues that both companies could use to coordinate with electric companies, work out some of the details of how the programs will be marketed and delivered to customers, and propose methods for allocating costs and energy savings between electricity and gas utilities	Enbridge can work with Union over time to see if this can be effectively accomplished.	Marginal budget increase.
3. Both companies should start by offering coordination for their whole building offerings (e.g., new construction programs, retrofit/audit programs, and retro-commissioning offerings) because such offerings are very good candidates for cross-utility coordination.	Enbridge has explored opportunities for coordination between utilities on New construction, Retrofit / Energy Audit and Retro-commissioning offerings.	Marginal budget increase.
4. Both companies should develop standard program design “templates” for coordinating the electric and gas programs so that both gas and electric companies could reduce time and resources required for program coordination activities and develop programs that are more consistent and transparent arrangements between electric and gas utilities	Per prior responses to Synapse's recommendations, Enbridge could commit to working more intensively with Union once both utilities have Board-approved offerings. There are more than 70 LDCs operating in Ontario, each with different targets, customer bases and priorities, operating with different set of processes. While standardization may help, it may also result in templates that are too generic to appeal to any specific electric utility.	Marginal budget increase.

Chapter 8. Customer Financing		
1. Identify a third party to establish and lead a finance working group. The purpose of this group is to: a. research how well existing financing offerings meet the needs of customers in each program; b. identify opportunities to design new offerings, targeted to specific programs and customers within these programs; c. identify additional sources of financing, including third-party and ratepayer funds; and d. discuss the value of financing for specific types of customers, such as low income and Aboriginal groups.		Increase in budget.
Chapter 9. Use of Input Assumptions in Evaluation		
9.2 Applying New or Updated Input Assumptions		
1. The best, most up-to-date information available, including recent evaluation updates, should be used for (a) reliability needs, (b) regulatory plans and program design; and (c) regulatory reporting, including achieved performance incentives and LRAM.	Enbridge believes fairness should serve as a guiding principle in the establishment of its multi-year DSM plan. A best practice identified by Synapse is that the shareholder incentive not be impacted by events outside of the utility's control (p. 119). In EGD's view, the Board could either choose to hold all input assumptions constant or adjust targets during the plan term. EGD is relatively indifferent between these two choices but elected to change targets along the way as it makes use of best available information throughout the term of the plan.	No additional costs.

9.3 Net Savings Assumptions		
1. Evaluations for free-ridership and spillover should be conducted on a more frequent, regular basis. The last study was conducted in 2008, and the programs and markets have evolved in the last seven years.	A joint natural gas Net-to-Gross study is currently underway. A third-party consultant has been engaged by Enbridge and Union Gas, through the Technical Evaluation Committee. Earliest anticipated completion of the study is expected to be Q1 2016.	Increase in budget.
2. The Board should consider conducting a study to determine which methodologies are most appropriate for determining free-ridership and spillover values in C&I programs.	A joint natural gas Net-to-Gross study is currently underway. A third-party consultant has been engaged by Enbridge and Union Gas, through the Technical Evaluation Committee. Earliest anticipated completion of the study is expected to be Q1 2016.	Marginal budget increase.
3. The Board should evaluate impacts from both participant and non-participant spillover, and should include the results in future planning efforts.	A joint natural gas Net-to-Gross study is currently underway. A third-party consultant has been engaged by Enbridge and Union Gas, through the Technical Evaluation Committee. Earliest anticipated completion of the study is expected to be Q1 2016.	No additional costs.
9.4 Savings Persistence Assumptions		
1. The Board should continue to account for savings persistence as part of the EUL of a measure, consistent with best practice.	Enbridge agrees with this recommendation.	No additional costs.

2. The Board could consider accounting for savings persistence using one or a combination of the methods identified above. This could be considered as part of the upcoming persistence study ordered by the Board in June of 2015.	Enbridge supports accounting for savings persistence as part of the EUL of a measure. If the Board sees value in an additional savings persistence study, Enbridge understands that this may be an appropriate topic for the newly formed Evaluation and Audit Committee.	No additional costs.
Chapter 10. Gas Infrastructure Planning		
<i>Enbridge</i>		
1. Enbridge should investigate the potential for demand response programs to address gas infrastructure needs.	Enbridge is amenable to further exploring this issue in the context of the IRP study.	No additional costs.
2. Enbridge should investigate the role that new construction programs, both residential and commercial and industrial, can play in addressing infrastructure needs. It should also investigate ways to increase the priority of these programs in its DSM plans.	Enbridge agrees with the value of this endeavour, and has considered this under intersection three in its Integrated Resource Planning in particular.	No additional costs.
3. Enbridge should modify the avoided cost inputs to it cost-benefit screening practice, but does not need to develop a new screening test.	Enbridge did not propose that a new cost screening test was necessary. A number of factors need to be considered when determining the degree to which avoided cost inputs may need to be modified. Of particular concern is whether integrated resource planning on a franchise-wide scale is feasible and reasonable. This and other questions will be further explored in the context of the IRP study.	No additional costs.

4. Enbridge should develop its first integrated resource plan in a timely fashion, and should allow time for stakeholder feedback and input.	Recognizing the many complimentary components that tend to make up an integrated resource plan (e.g. transition plan; study scope; stakeholder consultation; case studies) Enbridge aims to proceed in a manner that balances quality and expediency.	Uncertain.
5. Enbridge should incorporate best practices from electricity IRP in its gas IRP study, as appropriate.	Enbridge will consider and incorporate best practices from all relevant sources as part of its IRP study, where appropriate and feasible.	No additional costs.
6. Enbridge should work with Union to develop consistent IRP Scope Studies, and consistent IRP Studies.	Acknowledging that significant differences may exist between the gas utilities with regard to their respective transmission / distribution systems, Enbridge is amenable to working with Union Gas to identify opportunities for consistent IRP scope studies and IRP studies.	Marginal budget increases expected due to increased administrative requirements.
<i>Union</i>		
1. Union should investigate the potential for demand response programs to address gas infrastructure needs.	N/A	N/A
2. Union should investigate the role that new construction programs, both residential and commercial and industrial, can play in addressing infrastructure needs. It should also investigate ways to increase the priority of these programs in its DSM plans.	N/A	N/A

3. Union should modify the avoided cost inputs to it cost-benefit screening practice, but does not need to develop a new screening test.	N/A	N/A
4. Union should develop its first integrated resource plan in a timely fashion, and should allow time for stakeholder feedback and input.	N/A	N/A
5. Union should incorporate best practices from electricity IRP in its gas IRP study, as appropriate.	N/A	N/A
6. Union should work with Enbridge to develop consistent IRP Scope Studies, and consistent IRP Studies.	N/A	N/A
7. Union should include more detail in its IRP Scope Study, including information on the study scope; the study approach; the study method; the timeline; and a preliminary transition plan.	N/A	N/A

UNDERTAKING J8.15

UNDERTAKING

TR, page 133

With reference to page 22 of the VECC compendium, Enbridge to provide the cost per CCM on the same basis that union has provided it

RESPONSE

Enbridge was unable to replicate the table produced by Union with sufficient comparability. Furthermore, differences in treatment of measure life, base case, and free ridership, appear to affect a direct comparison.

However, a comparison of Enbridge's Home Energy Conservation and Union's Home Reno Rebate offerings are provided in Enbridge's interrogatory response to Energy Probe #36, found at Exhibit I.T13.EGDI.EP.36. This comparison outlines key data (e.g. budgets and targets, eligibility criteria and incentive structures) which speak to the unique facets of the utilities' respective offers.

Witnesses: S. Bertuzzi
M. Lister
J. Paris

UNDERTAKING J9.5

UNDERTAKING

TR, page 20

Enbridge to advise whether it will agree to, as a screening eligibility criterion, as part of the screening process, to require that there is at least one measure implemented that provides these direct benefits, comfort -- improved comfort to low-income tenants, in order for that building to be eligible for the multi-res low-income program.

RESPONSE

The current eligibility criteria for privately owned multi-residential buildings were developed by Enbridge in consultation with the low income working group. As per EB-2015-0049, Exhibit B, Tab 2, Schedule 1, page 40 of 100, any proposed change(s) to the eligibility criteria will be the subject of discussions between the low income working group and Enbridge.

As indicated in the preamble to the undertaking, Enbridge described its concern with accepting an eligibility criterion that would have impacts on targets going forward. Enbridge estimates that such a criterion would have an impact on its ability to serve the private sector segment of the low income multi-residential sector. As such, Enbridge does not believe the benefit of an additional criterion should outweigh the benefit of actively engaging this sector.

Nevertheless, Enbridge will continue to work with the low income working group to identify measures that could be installed to positively impact tenant comfort.

Witness: E. Lontoc

UNDERTAKING J9.8

UNDERTAKING

TR, page 106

Enbridge to provide the DSM budgets versus spending caps that underlined the rates 110, 115 and 170 DSM allocations in 2013 and 2014, the two years that were subject to the settled rate caps for those classes; to assess the degree to which the spending caps exceeded the budgets which Enbridge has said they've been able to operate within satisfactorily, at least to date.

RESPONSE

Below, please find the historical DSM budgets and spending caps for rates 110, 115, and 170 for 2013 and 2014. In addition, please see below the DSM budget allocation for rates 110, 115, and 170, for years 2015 to 2020.

2013 Budgeted Rate Allocation (\$ millions)

Rate Class	RA and MT Budgets	Low Income Budget	Total DSM Budget	Spending Caps
Rate 110	\$1.20	\$0.07	\$1.28	\$1.63
Rate 115	\$0.93	\$0.04	\$0.97	\$1.26
Rate 170	\$1.59	\$0.04	\$1.63	\$2.16

2014 Budgeted Rate Allocation (\$ millions)

Rate Class	RA and MT Budgets	Low Income Budget	Total DSM Budget	Spending Caps
Rate 110	\$1.21	\$0.07	\$1.28	\$1.68
Rate 115	\$0.93	\$0.04	\$0.97	\$1.30
Rate 170	\$1.60	\$0.04	\$1.64	\$2.22

Witnesses: M. Lister
K. Mark
F. Oliver-Glasford
B. Ott

2015 Budgeted Rate Allocation (\$ millions)

Rate Class	RA and MT Budgets	Low Income Budget	2015 Incremental Budget	Total DSM Budget	Spending Cap
Rate 110	\$0.88	\$0.07	\$0.08	\$1.02	\$1.72
Rate 115	\$0.90	\$0.04	\$0.07	\$1.01	\$1.33
Rate 170	\$0.33	\$0.04	\$0.03	\$0.39	\$2.26

2016 Budgeted Rate Allocation (\$ millions)

Rate Class	RA and MT Budgets	Low Income Budget	Total DSM Budgets
Rate 110	\$1.01	\$0.13	\$1.14
Rate 115	\$1.03	\$0.07	\$1.10
Rate 170	\$0.38	\$0.06	\$0.45

2017 Budgeted Rate Allocation (\$ millions)

Rate Class	RA and MT Budgets	Low Income Budget	Total DSM Budgets
Rate 110	\$1.09	\$0.13	\$1.22
Rate 115	\$1.11	\$0.07	\$1.19
Rate 170	\$0.41	\$0.07	\$0.48

2018 Budgeted Rate Allocation (\$ millions)

Rate Class	RA and MT Budgets	Low Income Budget	Total DSM Budgets
Rate 110	\$1.16	\$0.14	\$1.30
Rate 115	\$1.19	\$0.08	\$1.27
Rate 170	\$0.44	\$0.07	\$0.51

Witnesses: M. Lister
K. Mark
F. Oliver-Glasford
B. Ott

2019 Budgeted Rate Allocation (\$ millions)

Rate Class	RA and MT Budgets	Low Income Budget	Total DSM Budget
Rate 110	\$1.18	\$0.14	\$1.33
Rate 115	\$1.21	\$0.08	\$1.29
Rate 170	\$0.45	\$0.07	\$0.52

2020 Budgeted Rate Allocation

Rate Class	RA and MT Budgets	Low Income Budget	Total DSM Budget
Rate 110	\$1.21	\$0.15	\$1.35
Rate 115	\$1.24	\$0.08	\$1.32
Rate 170	\$0.46	\$0.07	\$0.53

Enbridge wishes to be clear in its position regarding spending limits for industrial customers in the above noted rate classes moving forward. Enbridge indicated that it does not object to reasonable spending limits during its Multi-Year Plan (Tr. p 112). Enbridge maintains this position, but wishes to emphasize the word 'reasonable'. Furthermore, if the Board were to approve spending limits moving forward, Enbridge would request that it be able to revisit the topic at the mid-term review. If Enbridge has found that such spending limits have materially interrupted its ability to deliver DSM, then it may seek the opportunity to propose alternative spending limits, as necessary or warranted.

Witnesses: M. Lister
K. Mark
F. Oliver-Glasford
B. Ott

UNDERTAKING J9.9

UNDERTAKING

TR, page 118

Enbridge to provide the allocations from each of those programs to each rate class.

RESPONSE

Below, please see the forecasted spend for each rate class for the years 2016 to 2020 for each offer. Enbridge has noted that the transcripts subsequently reference the allocation of relevant shareholder incentives to rates on this same per-offer basis. The nature of the Company's interactive weighted scorecards is such that shareholder incentives are not allocated to specific offers, and may not be accurately represented on a per-offer basis spread across rates. Exhibit B, Tab 2, Schedule 4 of Enbridge's pre-filed evidence shows the Company's intended allocation of the shareholder incentive at the 100% achievement level within rates.

Witnesses: M. Lister
K. Mark
F. Oliver-Glasford
B. Ott

2016 Forecasted Spend by Rate Class

Rate Class	Home Energy Conservation (HEC)	Adaptive Thermostats	Large C&I Custom	Large C&I Prescriptive	Small C&I Custom	Small C&I Prescriptive	Small C&I Direct Install	Small New Construction	Energy Leaders Fund	Run It Right	Comprehensive Energy Management
Rate 1	\$12,148,317	\$876,371	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 6	\$0	\$0	\$5,081,295	\$1,010,556	\$695,292	\$797,091	\$4,077,309	\$326,596	\$329,119	\$1,510,985	\$513,735
Rate 9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 110	\$0	\$0	\$360,160	\$71,628	\$49,282	\$56,497	\$288,998	\$23,149	\$23,328	\$0	\$0
Rate 115	\$0	\$0	\$370,772	\$73,738	\$50,734	\$58,162	\$297,513	\$23,831	\$24,015	\$0	\$0
Rate 125	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 135	\$0	\$0	\$94,359	\$18,766	\$12,911	\$14,802	\$75,715	\$6,065	\$6,112	\$0	\$0
Rate 145	\$0	\$0	\$132,903	\$26,431	\$18,186	\$20,848	\$106,643	\$8,542	\$8,608	\$0	\$0
Rate 170	\$0	\$0	\$136,142	\$27,076	\$18,629	\$21,356	\$109,243	\$8,750	\$8,818	\$0	\$0
Rate 200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 300	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Budget	\$12,148,317	\$876,371	\$6,175,630	\$1,228,195	\$845,034	\$968,757	\$4,955,421	\$396,933	\$400,000	\$1,510,985	\$513,735

Rate Class	Energy Literacy	Low Income Residential Part 9 ¹	Low Income Commercial Part 3 ¹	Low Income New Construction ¹	SBD Commercial	SBD Residential	Home Rating	O-Power	School Competition	Energy Compass	New Commissioning	Total Program Spending
Rate 1	\$0	\$3,913,548	\$2,229,411	\$759,242	\$0	\$3,250,842	\$1,100,000	\$3,913,434	\$0	\$0	\$0	\$28,191,166
Rate 6	\$0	\$1,620,908	\$923,374	\$314,462	\$1,345,890	\$0	\$0	\$0	\$302,197	\$302,197	\$850,000	\$20,001,005
Rate 9	\$0	\$1,151	\$656	\$223	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,030
Rate 100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 110	\$0	\$58,136	\$33,118	\$11,279	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$975,574
Rate 115	\$0	\$32,234	\$18,363	\$6,254	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$955,616
Rate 125	\$0	\$43,170	\$24,593	\$8,375	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$76,138
Rate 135	\$0	\$4,029	\$2,295	\$782	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$235,836
Rate 145	\$0	\$36,263	\$20,658	\$7,035	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$386,117
Rate 170	\$0	\$28,780	\$16,395	\$5,583	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$380,773
Rate 200	\$0	\$14,966	\$8,525	\$2,903	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$26,395
Rate 300	\$0	\$2,878	\$1,640	\$558	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,076
Total Budget	\$0	\$5,756,064	\$3,279,028	\$1,116,697	\$1,345,890	\$3,250,842	\$1,100,000	\$3,913,434	\$302,197	\$302,197	\$850,000	\$51,235,727

Witnesses: M. Lister
K. Mark
F. Oliver-Glasford
B. Ott

2017 Forecasted Spend by Rate Class

Rate Class	Home Energy Conservation (HEC)	Adaptive Thermostats	Large C&I Custom	Large C&I Prescriptive	Small C&I Custom	Small C&I Prescriptive	Small C&I Direct Install	Small New Construction	Energy Leaders Fund	Run It Right	Comprehensive Energy Management
Rate 1	\$15,180,000	\$1,525,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 6	\$0	\$0	\$5,178,795	\$1,029,947	\$710,088	\$814,053	\$4,164,074	\$1,074,217	\$493,679	\$1,720,000	\$844,045
Rate 9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 110	\$0	\$0	\$367,070	\$73,002	\$50,331	\$57,700	\$295,147	\$76,140	\$34,992	\$0	\$0
Rate 115	\$0	\$0	\$377,886	\$75,153	\$51,814	\$59,400	\$303,844	\$78,383	\$36,023	\$0	\$0
Rate 125	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 135	\$0	\$0	\$96,170	\$19,126	\$13,186	\$15,117	\$77,326	\$19,948	\$9,168	\$0	\$0
Rate 145	\$0	\$0	\$135,453	\$26,939	\$18,573	\$21,292	\$108,912	\$28,096	\$12,912	\$0	\$0
Rate 170	\$0	\$0	\$138,755	\$27,595	\$19,025	\$21,811	\$111,567	\$28,781	\$13,227	\$0	\$0
Rate 200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 300	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Budget	\$15,180,000	\$1,525,000	\$6,294,128	\$1,251,762	\$863,017	\$889,372	\$5,060,872	\$1,305,566	\$600,000	\$1,720,000	\$844,045

Rate Class	Energy Literacy	Low Income Residential Part 9 ¹	Low Income Commercial Part 3 ¹	Low Income New Construction ¹	SBD Commercial	SBD Residential	Home Rating	O-Power	School Competition	Energy Compass	New Commissioning	Total Program Spending
Rate 1	\$311,467	\$4,242,576	\$2,323,980	\$815,880	\$0	\$3,250,000	\$1,100,000	\$6,910,000	\$0	\$0	\$0	\$35,347,436
Rate 6	\$169,487	\$1,757,184	\$962,543	\$337,920	\$950,000	\$0	\$0	\$0	\$600,000	\$400,000	\$925,000	\$21,961,544
Rate 9	\$18	\$1,248	\$684	\$240	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,172
Rate 100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 110	\$5,962	\$63,024	\$34,523	\$12,120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,064,049
Rate 115	\$5,460	\$34,944	\$19,141	\$6,720	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,043,309
Rate 125	\$1,059	\$46,800	\$25,636	\$9,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$81,436
Rate 135	\$1,287	\$4,368	\$2,393	\$840	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$257,641
Rate 145	\$2,563	\$39,312	\$21,534	\$7,560	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$420,583
Rate 170	\$2,420	\$31,200	\$17,091	\$6,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$415,052
Rate 200	\$233	\$16,224	\$8,887	\$3,120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,231
Rate 300	\$45	\$3,120	\$1,709	\$600	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,429
Total Budget	\$500,000	\$6,240,000	\$3,418,121	\$1,200,000	\$950,000	\$3,250,000	\$1,100,000	\$6,910,000	\$600,000	\$400,000	\$925,000	\$60,626,882

Witnesses: M. Lister
K. Mark
F. Oliver-Glasford
B. Ott

2018 Forecasted Spend by Rate Class

Rate Class	Home Energy Conservation (HEC)	Adaptive Thermostats	Large C&I Custom	Large C&I Prescriptive	Small C&I Custom	Small C&I Prescriptive	Small C&I Direct Install	Small New Construction	Energy Leaders Fund	Run It Right	Comprehensive Energy Management
Rate 1	\$18,000,000	\$2,175,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 6	\$0	\$0	\$5,389,436	\$1,071,839	\$667,641	\$765,390	\$3,915,155	\$1,972,102	\$658,238	\$1,900,000	\$1,000,000
Rate 9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 110	\$0	\$0	\$382,000	\$75,971	\$47,322	\$54,250	\$277,504	\$139,782	\$46,656	\$0	\$0
Rate 115	\$0	\$0	\$393,256	\$78,210	\$48,716	\$55,849	\$285,681	\$143,900	\$48,030	\$0	\$0
Rate 125	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 135	\$0	\$0	\$100,081	\$19,904	\$12,398	\$14,213	\$72,704	\$36,622	\$12,223	\$0	\$0
Rate 145	\$0	\$0	\$140,962	\$28,034	\$17,462	\$20,019	\$102,402	\$51,581	\$17,216	\$0	\$0
Rate 170	\$0	\$0	\$144,398	\$28,718	\$17,888	\$20,507	\$104,898	\$52,838	\$17,636	\$0	\$0
Rate 200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 300	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Budget	\$18,000,000	\$2,175,000	\$6,550,134	\$1,302,676	\$811,427	\$930,229	\$4,758,344	\$2,396,825	\$800,000	\$1,900,000	\$1,000,000

Rate Class	Energy Literacy	Low Income Residential Part 9 ¹	Low Income Commercial Part 3 ¹	Low Income New Commercial ¹	SBD Commercial	SBD Residential	Home Rating	O-Power	School Competition	Energy Compass	New Commissioning	Total Program Spending
Rate 1	\$312,563	\$4,369,853	\$2,592,660	\$951,860	\$0	\$3,250,000	\$1,100,000	\$6,910,000	\$0	\$0	\$0	\$39,349,373
Rate 6	\$168,206	\$1,809,900	\$1,073,824	\$394,240	\$1,075,000	\$0	\$0	\$0	\$500,000	\$200,000	\$1,000,000	\$23,392,764
Rate 9	\$18	\$1,285	\$763	\$280	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,328
Rate 100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 110	\$6,026	\$64,915	\$38,514	\$14,140	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,141,055
Rate 115	\$5,530	\$35,992	\$21,354	\$7,840	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,118,830
Rate 125	\$1,052	\$48,204	\$28,600	\$10,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$87,304
Rate 135	\$1,306	\$4,499	\$2,669	\$980	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$276,294
Rate 145	\$2,584	\$40,491	\$24,024	\$8,820	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$451,012
Rate 170	\$2,443	\$32,136	\$19,066	\$7,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$445,086
Rate 200	\$228	\$16,711	\$9,915	\$3,640	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,265
Rate 300	\$44	\$3,214	\$1,907	\$700	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,820
Total Budget	\$500,000	\$6,427,200	\$3,813,296	\$1,400,000	\$1,075,000	\$3,250,000	\$1,100,000	\$6,910,000	\$500,000	\$200,000	\$1,000,000	\$66,300,131

Witnesses: M. Lister
K. Mark
F. Oliver-Glasford
B. Ott

2019 Forecasted Spend by Rate Class

Rate Class	Home Energy Conservation (HEC)	Adaptive Thermostats	Large C&I Custom	Large C&I Prescriptive	Small C&I Custom	Small C&I Prescriptive	Small C&I Direct Install	Small New Construction	Energy Leaders Fund	Run It Right	Comprehensive Energy Management
Rate 1	\$18,360,000	\$2,218,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 6	\$0	\$0	\$5,497,225	\$1,093,276	\$680,993	\$780,698	\$3,993,458	\$2,011,544	\$671,403	\$1,941,182	\$1,020,000
Rate 9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 110	\$0	\$0	\$389,640	\$77,491	\$48,268	\$55,335	\$283,054	\$142,577	\$47,589	\$0	\$0
Rate 115	\$0	\$0	\$401,121	\$79,774	\$49,691	\$56,966	\$291,395	\$146,778	\$48,991	\$0	\$0
Rate 125	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 135	\$0	\$0	\$102,083	\$20,302	\$12,646	\$14,497	\$74,158	\$37,354	\$12,468	\$0	\$0
Rate 145	\$0	\$0	\$143,781	\$28,595	\$17,812	\$20,419	\$104,450	\$52,612	\$17,561	\$0	\$0
Rate 170	\$0	\$0	\$147,286	\$29,292	\$18,246	\$20,917	\$106,996	\$53,895	\$17,989	\$0	\$0
Rate 200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 300	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Budget	\$18,360,000	\$2,218,500	\$6,681,137	\$1,328,729	\$827,656	\$948,834	\$4,853,511	\$2,444,761	\$816,000	\$1,941,182	\$1,020,000

Rate Class	Energy Literacy	Low Income Residential Part 9 ¹	Low Income Commercial Part 3 ¹	Low Income New Construction ¹	SBD Commercial	SBD Residential	Home Rating	O-Power	School Competition	Energy Compass	New Commissioning	Total Program Spending
Rate 1	\$319,261	\$4,457,250	\$2,644,513	\$970,897	\$0	\$3,320,443	\$1,100,000	\$7,059,774	\$0	\$0	\$0	\$40,131,378
Rate 6	\$171,899	\$1,846,098	\$1,095,301	\$402,125	\$1,098,301	\$0	\$0	\$0	\$510,000	\$204,000	\$1,020,000	\$23,865,602
Rate 9	\$18	\$1,311	\$778	\$286	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,375
Rate 100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 110	\$6,156	\$66,213	\$39,285	\$14,423	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,163,876
Rate 115	\$5,650	\$36,712	\$21,782	\$7,997	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,141,207
Rate 125	\$1,074	\$49,168	\$29,172	\$10,710	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$89,050
Rate 135	\$1,334	\$4,589	\$2,723	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$281,819
Rate 145	\$2,640	\$41,301	\$24,504	\$8,996	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$460,032
Rate 170	\$2,496	\$32,779	\$19,448	\$7,140	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$453,987
Rate 200	\$233	\$17,045	\$10,113	\$3,713	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,871
Rate 300	\$45	\$3,278	\$1,945	\$714	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,937
Total Budget	\$510,808	\$6,555,744	\$3,889,562	\$1,428,000	\$1,098,301	\$3,320,443	\$1,100,000	\$7,059,774	\$510,000	\$204,000	\$1,020,000	\$67,626,133

Witnesses: M. Lister
K. Mark
F. Oliver-Glasford
B. Ott

2020 Forecasted Spend by Rate Class

Rate Class	Home Energy Conservation (HEC)	Adaptive Thermostats	Large C&I Custom	Large C&I Prescriptive	Small C&I Custom	Small C&I Prescriptive	Small C&I Direct Install	Small New Construction	Energy Leaders Fund	Run It Right	Comprehensive Energy Management
Rate 1	\$18,727,200	\$2,262,870	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 6	\$0	\$0	\$5,607,169	\$1,115,141	\$694,613	\$796,312	\$4,073,327	\$2,051,775	\$684,831	\$1,983,188	\$1,040,400
Rate 9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 110	\$0	\$0	\$397,433	\$79,041	\$49,234	\$56,442	\$288,715	\$145,429	\$48,540	\$0	\$0
Rate 115	\$0	\$0	\$409,144	\$81,370	\$50,685	\$58,105	\$297,223	\$149,714	\$49,971	\$0	\$0
Rate 125	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 135	\$0	\$0	\$104,124	\$20,708	\$12,899	\$14,787	\$75,641	\$38,101	\$12,717	\$0	\$0
Rate 145	\$0	\$0	\$146,657	\$29,167	\$18,168	\$20,828	\$106,539	\$53,665	\$17,912	\$0	\$0
Rate 170	\$0	\$0	\$150,232	\$29,878	\$18,611	\$21,335	\$109,136	\$54,973	\$18,349	\$0	\$0
Rate 200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 300	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Budget	\$18,727,200	\$2,262,870	\$6,814,760	\$1,355,304	\$844,209	\$967,810	\$4,950,581	\$2,493,656	\$832,320	\$1,983,188	\$1,040,400

Rate Class	Energy Literacy	Low Income Residential Part 9 ¹	Low Income Commercial Part 3 ¹	Low Income New Construction ¹	SBD Commercial	SBD Residential	Home Rating	O-Power	School Competition	Energy Compass	New Commissioning	Total Program Spending
Rate 1	\$326,094	\$4,546,395	\$2,697,403	\$990,315	\$0	\$3,392,296	\$1,100,000	\$7,212,543	\$0	\$0	\$0	\$40,929,023
Rate 6	\$175,665	\$1,883,019	\$1,117,207	\$410,167	\$1,122,067	\$0	\$0	\$0	\$520,200	\$208,080	\$1,040,400	\$24,347,897
Rate 9	\$18	\$1,337	\$793	\$291	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,422
Rate 100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Rate 110	\$6,289	\$67,537	\$40,070	\$14,711	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,187,153
Rate 115	\$5,773	\$37,446	\$22,217	\$8,157	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,164,031
Rate 125	\$1,098	\$50,151	\$29,755	\$10,924	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$90,831
Rate 135	\$1,363	\$4,681	\$2,777	\$1,020	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$287,456
Rate 145	\$2,697	\$42,127	\$24,994	\$9,176	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$469,233
Rate 170	\$2,550	\$33,434	\$19,837	\$7,283	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$463,067
Rate 200	\$238	\$17,386	\$10,315	\$3,787	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$31,488
Rate 300	\$46	\$3,343	\$1,984	\$728	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,055
Total Budget	\$521,832	\$6,686,859	\$3,967,353	\$1,456,560	\$1,122,067	\$3,392,296	\$1,100,000	\$7,212,543	\$520,200	\$208,080	\$1,040,400	\$68,978,656

Witnesses: M. Lister
K. Mark
F. Oliver-Glasford
B. Ott

/c

Chapter 5. Assessment of Programs and Offerings		
5.2 Cross Program Issues		
<i>Enbridge and Union</i>		
1. Both companies should consider developing an offering specifically targeting the multifamily building market segment similar to their low income multi-family offerings, or consider offering a single point-of-contact or one stop shopping dedicated to the multifamily market segment so that customers interested in implementing energy efficiency measures for their multi-family buildings could explore various types of offerings and incentives through a single point-of-contact.	Enbridge currently provides many of its offerings to the multifamily building market and will continue to do so going forward.	
2. Both utilities should provide customers with zero or low interest financing to address lack of funding, one of the major barriers identified by Enbridge.	Enbridge supports and has committed to further research and engagement with the Board and Stakeholders in this area.	
3. Both utilities should develop a residential products offering to promote the installation of high efficiency space heating and water heating equipment. This type of program is essential especially when the homeowners' HVAC equipment has failed or broken and they need to replace the equipment immediately	Although Enbridge currently does have a high efficiency furnace in the Home Energy Conservation program, Enbridge regularly reviews and assesses new technologies that may be appropriate for its offerings and its portfolio.	
<i>Union</i>		
1. Union should develop a commercial new construction offering similar to Enbridge's new construction offering.	N/A	