

Hydro One Networks Inc.

7th Floor, South Tower
483 Bay Street
Toronto, Ontario M5G 2P5
www.HydroOne.com

Tel: (416) 345-5700
Fax: (416) 345-5870
Cell: (416) 258-9383
Susan.E.Frank@HydroOne.com



Susan Frank

Vice President and Chief Regulatory Officer
Regulatory Affairs

BY RESS

June 6, 2014

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
Suite 2700, 2300 Yonge Street
P.O. Box 2319
Toronto, ON, M4P 1E4

Dear Ms. Walli:

**EB-2012-0410 - Hydro One Networks Inc.'s Submission on the Draft Report of the Board:
Rate Design for Electricity Distributors**

Hydro One Networks ("Hydro One") is pleased to provide comments on the draft report (the "Report") issued by the Ontario Energy Board ("the Board") on March 31, 2014 titled "Rate Design for Electricity Distributors".

The Report states that the Board intends to pursue a fixed rate design solution to achieve revenue decoupling and invited stakeholders to comment on the three proposed methodologies and specific questions raised in the Report.

Hydro One's submission consists of six sections:

1. Impact on Hydro One Customers
2. Achieving the Board's Goals
3. Distributor Choice of Options
4. Implementation Issues
5. Concluding Remarks
6. Supporting Attachments 1 to 3

A text-searchable electronic version has been submitted via the Board's Regulatory Electronic Submission System and two (2) paper copies of Hydro One's comments will be sent to the Board shortly.

Sincerely,

ORIGINAL SIGNED BY SUSAN FRANK

Susan Frank

Attach.

c. Parties to EB-2012-0410

**HYDRO ONE NETWORKS INC.'S COMMENTS
ON DRAFT REPORT OF THE BOARD
RATE DESIGN FOR ELECTRICITY DISTRIBUTORS**

Hydro One Networks (“Hydro One”) is pleased to provide comments on the draft report (the “Report”) issued by the Ontario Energy Board (“the Board”) on March 31, 2014 under proceeding EB-2012-0410, titled “Rate Design for Electricity Distributors”.

The Report states that the Board intends to pursue a fixed rate design solution to achieve revenue decoupling and invited stakeholders to comment on the three proposed methodologies and specific questions raised in the Report.

This submission consists of six sections:

1. Impact on Hydro One Customers
2. Achieving the Board’s Goals
3. Distributor Choice of Options
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5. Concluding Remarks
6. Supporting Attachments 1 to 3

1. HYDRO ONE IMPACTS

Hydro One analyzed the impact of adopting the methodologies proposed in the Report on all of its residential (UR/R1/R2/Seasonal rate classes) and General Service energy (GSe/UGe rate classes) customers using available 2012 consumption data and currently approved 2014 rates. Due to the diversity of its customer base, Hydro One’s analysis indicates there will be much more significant impacts than that suggested by the Board staff’s analysis provided in Appendix C to the Report.

A summary of range of dollar increases and decreases experienced by Hydro One customers under **Option 1** is provided in Table 1.

Table 1. Impact of Option 1 on Hydro One Customers

Rate Class	Total # of Customers Evaluated	% of Customers Impacted				
		Bill Decreases > \$20	Bill Decreases \$5 to \$20	Bill within +/- \$5	Bill Increases \$5 to \$20	Bill Increases > \$20
UR	169,868	5%	19%	37%	39%	0%
R1	409,621	13%	17%	23%	39%	8%
R2	373,736	16%	13%	14%	30%	26%
Seasonal	150,988	17%	8%	8%	27%	40%
All Res	1,104,213	13%	15%	20%	34%	17%

GSe	91,505	27%	4%	3%	7%	59%
UGe	12,078	21%	6%	6%	12%	56%
All GS	103,583	26%	4%	4%	7%	58%

While Board staff reported that for Option 1 “just over 70% of the customers in the sample” would see an impact within +/- \$5 of the current bill, Table 1 shows that the number of Hydro One customers experiencing this relatively minor impact is much smaller. Only 20% of all residential customers would see impacts of +/- \$5, and this number is quite variable across rate classes (e.g. only 8% of Seasonal customers would see an impact of +/- \$5). Less than 4% of GSe/UGe customers would see impacts of +/- \$5 and in fact about 84% of them will experience impacts of more than +/- \$20.

The impact of Option 1 as a % of the Distribution Bill and Total Bill is provided in Attachment 1 for a range of typical consumption levels. The results in Attachment 1 show that there will be significant impacts on low consuming residential customers. As an example, the monthly Distribution Bill impact for an R1 residential customer consuming 100 kWh (there were about 6,000 such customers in 2012) will be 97% resulting in a Total Bill increase of 65%. The impact on the monthly Distribution Bill for a Seasonal residential customer consuming 50 kWh (there were about 20,000 such customers in 2012) will be 98% for a Total Bill increase by 78%.

A summary of the range of dollar increases and decreases experienced by Hydro One customers under **Option 3 (Summer Peak)** using the same approach as Board staff (split into 3 groups low 20%, med 70%, high 10%; use kWh during TOU peak hours in Jun, July and August) is provided in Table 2.

Table 2. Impact of Option 3 (Summer Peak) on Hydro One Customers

Rate Class	Total # of Customers Evaluated	% of Customers Impact				
		Bill Decreases > \$20	Bill Decreases \$5 to \$20	Bill within +/- \$5	Bill Increases \$5 to \$20	Bill Increases > \$20
UR	156,957	4%	30%	39%	16%	12%
R1	374,197	14%	27%	24%	23%	12%
R2	314,627	34%	20%	19%	15%	12%
Seasonal	110,731	16%	25%	12%	38%	10%
All Res	956,512	19%	25%	23%	21%	12%
GSe	70,717	67%	11%	6%	4%	12%
UGe	9,552	7%	26%	17%	9%	41%
All GS	80,269	60%	12%	7%	5%	16%

Board staff reported that for Option 3 “60% of customers are within \$5 of their current charge; over 70% of customers will pay less than their current charge; no customers pay more than \$20 difference”. The results in Table 2 show the impacts are much more significant for Hydro One’s customers. In fact, only 23% of residential customers and 7% of GSe/UGe customers experience impacts of +/- \$5 while a significant number of customers (31% of residential and 76% of GSe/UGe) will see impacts above +/- \$20.

The impact of Option 3 (Summer Peak) as a % of the Distribution Bill and Total Bill is provided in Attachment 2 for a range of typical consumption levels. The results in Attachment 2 show that while the impacts are smaller as compared to Option 1, there can still be significant impacts, depending on the customer's average monthly consumption and which on-peak consumption group (low/med/high) the customer is in. As an example, the impact on the monthly Distribution Bill for an R2 residential customer consuming 2000 kWh who is charged the high peak distribution rate would be 164% for a Total Bill increase of 57%.

As Hydro One is a winter peaking Distributor, an analysis of **Option 3 (Winter Peak)** was carried out using kWh consumption during TOU peak hours in December, January and February. A summary of the range of dollar increases and decreases experienced by Hydro One customers under Option 3 (Winter Peak) is provided in Table 3.

Table 3. Impact of Option 3 (Winter Peak) on Hydro One Customers

Rate Class	Total # of Customers Evaluated	% of Customers Impact				
		Bill Decreases > \$20	Bill Decreases \$5 to \$20	Bill within +/- \$5	Bill Increases \$5 to \$20	Bill Increases > \$20
UR	164,908	1%	27%	46%	25%	3%
R1	392,100	5%	34%	26%	28%	7%
R2	326,796	32%	18%	18%	23%	9%
Seasonal	115,247	15%	30%	15%	31%	8%
All Res	999,051	14%	27%	25%	26%	7%
GSe	74,193	51%	17%	5%	6%	21%
UGe	10,191	5%	18%	32%	22%	23%
All GS	84,384	46%	17%	8%	8%	21%

Using winter peak as the basis for assigning customers to the low/med/high peak consumption groups does, in most cases, increase the % of customers experiencing the smaller +/- \$5 impacts and also reduces the % of customers that experience impacts of more than +/- \$20. The impact of Option 3 (Winter Peak) as a % of the Distribution Bill and Total Bill is provided in Attachment 3 for a range of typical consumption levels.

Hydro One does not have data available on the size of its customer connections and so no further analysis can be completed on Option 2.

2. ACHIEVING THE BOARD'S GOALS

This section provides Hydro One's comments with respect to how the proposed options align with the Board's stated rate design principles, as well as providing comments on the questions specifically posed by the Board in the Report with respect to achieving the Board's goals.

2.1 Alignment with Rate Design Principles

- a. Principle of full cost recovery for distributors including a return on equity with appropriate risk premium.

Both Options 1 and 3 will ensure full recovery of a Distributor's approved costs (revenue requirement) attributed to low volume customers, which represents about 85% of Hydro One's total costs. However, providing stable revenue does not ensure stability of a Distributor's return on equity (net income) or eliminate the associated risk.

Currently the impact on revenues resulting from variations in kWh consumption due to temperature fluctuations helps to provide a "natural hedge" to the impact on a Distributor's costs resulting from extreme temperature variations.

Hot weather combined with increase in loading at or near rated capacities can have significant impact on assets and subsequently can drive an increase in capital and OM&A costs. This is particularly true for assets that are at or close to their expected service life, which represents a considerable portion of Hydro One's distribution system assets. Hydro One can also experience an upswing in trouble calls during periods of extreme cold due to increased stresses on equipment (e.g. transformers, secondary wire, connections). While some of the increased costs are capital-related, the move to a 5-year cycle for rates applications means that incremental capital costs will not be recovered over the interim period between rebasing.

Extreme hot and cold weather results in higher electricity usage, and therefore higher total bills. This affects a number of Customer Service related costs. Higher bills can lead to an increase in call volumes and escalated complaints, as well as increased administration to deal with a higher number of billing exceptions. High bills also impact collections activities, bad debt expense and low-income programs. These factors contribute to an increase in Customer Service costs, including potentially increasing contractual costs from our service providers

- b. Principle of fairness including cost causality, simplicity and lack of controversy.

While Option 1 is simple, it could be argued that there is a lack of alignment with cost causality and fairness given that the allocation of costs to a rate class, and the recovery of those costs from customers within the rate class, is done on a different basis. The peak kW consumption of all customers within a rate class is a key allocator used within the Board's cost allocation model to split a Distributor's revenue requirement between rate classes. While Customer Service related costs are fully allocated based on # of customers, the bulk of a Distributor's costs are either fully allocated based on peak consumption or split anywhere from 30/70 to 55/45 between # of customers and peak consumption. It may be seen as inconsistent to use peak consumption as a basis for allocating costs to a rate class, but then ignore consumption when recovering those costs from customers within the class.

It will be difficult to explain to customers why those individuals consuming large amounts of energy don't somehow "cause" higher costs on the distribution delivery system. As a

minimum, higher volume customers “use” the distribution system more and therefore may be perceived as appropriately being responsible for paying a larger share of its costs.

Option 2 may be perceived as unfair by customers as service size may not reflect existing usage. Customers may have installed a larger service for reasons other than existing use, such as resale value, or they may purchase a home with a larger service but not consume energy equivalent to the service size.

By taking consumption into account, Option 3 addresses some of the concerns related to cost causality and fairness, but it creates serious issues with respect to the principles of simplicity and lack of controversy. Much of the Distribution system sizing is driven by customer’s non-coincident peak and standardization of equipment sizing. As such, it is not clear that linking recovery of costs to on-peak consumption as defined by the TOU periods is appropriate.

Option 3 will be difficult to defend and explain to customers because of the complexity, and perceived arbitrariness, in defining the inputs required to set rates, specifically: How are the boundaries between the low/med/high consumption groups established? What is the basis for the minimum charge payable by all groups versus the amount payable due to consumption during peak hours? How have the peak hours been defined and how do they tie to distribution costs?

Option 1 aligns with the Board’s argument that distribution service costs are largely fixed, and not tied to consumption, however, Option 3 then ties recovery of a significant portion of the costs to the on-peak consumption of customers. As an example, the Board staff suggestion of using \$5.40 as the “base” charge applicable means that over 90% of Hydro One’s revenue requirement for residential customers would be recovered based on customers’ on-peak consumption. As a result, the Board’s argument on the rationale for changing to a new rate design approach will be inconsistent and confusing to customers.

The current approach of using the Microfit charge of \$5.40 as the “base” charge applicable to all groups under Option 3 seems arbitrary. Option 3 could be made more consistent with the Board’s view that the bulk of Distribution costs are fixed by setting the “base” charge payable by all customers based on the minimum system costs established by the Board’s cost allocation model, and only recovering the costs in excess of minimum-system based on the on-peak consumption.

Option 3 may also be perceived as unfair by consumers that have limited ability to change their peak consumption (e.g. retired seniors, people working from home).

2.2 Stability & Predictability

Options 1 and 3 provide consumers with stability and predictability in Distribution charges, but this benefit is muted by the fact that the “Delivery” line on the bill will continue to include components that are variable, namely: 1) the commodity cost associated with line losses, and 2) retail transmission service rates (“RTSR”). These two components account for roughly 20% of

the Delivery line for a typical residential customer. It may be appropriate to develop a “fixed charge” approach to RTSR, but the cost of losses should not be fixed as they are directly linked to a customer’s electricity consumption. One solution would be to move the cost of losses back to the commodity line of the bill.

Under Option 3, those customers near the low/medium and medium/high boundaries may not perceive the rates to be stable or predictable. Customers near the boundaries could find themselves moving across boundaries because their consumption relative to others within the class changes, even though their individual consumption remains stable. On the flip side, some customers may have taken actions to reduce their consumption and then be frustrated when they don’t move between boundaries as expected.

In addition, because Distribution charges represent only about 1/3 of a typical Hydro One residential customers’ bill, fixing Distribution rate design will not result in stability and predictability of the customer’s total bill. As such, it is important that consumer communications be clear about what this change will mean for their electricity bill.

2.3 Consumer Literacy

Hydro One believes that the simplicity of Option 1 will enhance consumer literacy more so than Option 3, but there are a number of aspects with respect to enhancing literacy.

The Board wants customers to better understand the components of their electricity bill and what parts they can control. Hydro One believes that addressing this issue requires a broad education and communication strategy involving all the players in the electricity industry (e.g. OEB, OPA, LDCs). Enhanced understanding of the electricity bill will not be achieved by changing the distribution rate design alone.

The lack of consumer literacy is illustrated by one of the most frequent complaints Hydro One receives from low volume, typically Seasonal, customers who can’t understand why they have to pay for “delivery” when they’ve consumed little to no electricity and therefore nothing was being “delivered”. This suggests that currently customers expect a link between their electricity consumption and delivery charges. Fixing the distribution portion of the bill will break the link to consumption, and while this may lead to customers having a better understanding of the fixed nature of distribution charges, it is anticipated that it will also lead to increased customer dissatisfaction for low consumption customers with high delivery charges.

The Board wants customers to understand the “fixed nature of distribution charges”, however, any attempts to “fix” distribution costs without addressing the continuing variable nature of the “Delivery” line item of the bill (i.e. due to variable charges for losses and RTSR) will hamper customer literacy on this point.

Changing the rate design approach will not address customer questions about the basis for determining the costs to be recovered from their rate class. Once customers understand that peak

consumption influences the costs attributable to each rate class, they will be confused as to why consumption does not also influence how much each individual customer pays.

2.4 Consumer Tools

In the context of this proceeding, a consumer's electricity bill is the "tool" that provides them with information to help them manage their electricity consumption.

The value of fixing Distribution rates will be limited to the extent that the electricity bill does not clearly break out those components that are fixed. Bill presentment, and in particular ensuring that Delivery costs on a customer's bill exclude any variable cost items (e.g. losses), combined with effective consumer education are important to giving consumers a tool (i.e. bill) they can use.

One of the Board's objectives in fixing distribution pricing is to eliminate it as a factor in influencing consumer response to their electricity bill. Option 1 best achieves this, while Option 3 dilutes this clear message by suggesting to customers that changing their behaviors will also influence their distribution charges.

On the surface it may appear that Option 3 is better than Option 1 as a tool for customers because it provides some price signals that encourage them to reduce on-peak consumption. However, the value of those signals are muted by the fact that any actions taken in the current year will only potentially impact a customer's distribution charges in the following year. The value of Option 3 as a tool for consumers is further diluted by the fact that individual customers may not see the results they expected since it is their consumption relative to others in their rate class that will determine if they move between groups.

2.5 Optimal Use of Assets and Improved Productivity

The Board states that their objective is a rate design approach that will provide revenue certainty that will in turn facilitate the execution of distributor's long-term capital plans.

Hydro One submits that a Distributor's asset management plan based on well-defined asset optimization, risk assessment and decision making processes is the key to good Distributor management that will ensure optimal use of assets - not rate design. Including an asset management plan as part of a Cost-of-Service or Custom IR application (as per the Board's filing requirements) and combining it with outcome measures to be tracked will ensure long-term capital plans are delivered.

A Distributor's operating efficiency and productivity is supported by the rates approval process where costs and revenues are reviewed and challenged in detail. This is independent of the rate design that is in place.

2.6 Regulatory Costs

Hydro One does not believe there will be any net savings in regulatory costs as a result of adopting any of the proposed options, and in fact, the additional complexity associated with Option 3 will increase a Distributor's costs.

While the need for load forecasting from a rates perspective is eliminated by the proposed rate design changes, load forecasting activities will still need to be carried out for asset management, regional planning and business planning purposes.

Regulatory filings under the Board's IRM approach already minimizes the rates related work, so fixing distribution does nothing to change the efforts required under IRM. Option 1 does make the rate design aspect of a rates filing simpler, while Option 3 makes rate design more complex and more difficult to support in a rates filing. Most importantly, neither Options 1 nor 3 would eliminate the need for running a cost allocation model to establish the costs to be collected for each rate class, which represents the bulk of the rates-related work for a rates filing.

2.7 Public Policy (CDM)

Hydro One does not see the current rate design as a disincentive to develop and implement CDM programs. Hydro One responds and participates in all OPA programs available to our customers, and the move to a fixed charge approach will not change that commitment.

A fixed charge approach would reduce the motivation for customers responding to CDM programs because it would reduce the magnitude of the bill savings and extend the payback period for CDM initiatives. Admittedly Distribution charges represent only about 1/3 of a typical Hydro One residential customers' total bill, but customers will understand that this approach reduces the variable component of the bill, which in turn reduces the incentive to adopt CDM programs. The motivation for customers to save will be limited to commodity cost savings as well as to other aspirational objectives, such as helping the environment or using better tools to improve comfort and convenience.

A reduced need from customers to invest in CDM will make it increasingly more expensive for Distributors to market CDM programs as they will have to increase incentives for customer participation. As a result, it will be more challenging to meet the new CDM target set by the government for 2015-2020.

Option 3 does, on the surface, appear to provide a better alignment to the governments LTEP goals by encouraging customers to use more energy off-peak in order to shift to a "lower use" fixed distribution charge. However, the one-year time-lag between customer actions and potential changes to distribution charges, as discussed earlier, will mute this benefit.

3. DISTRIBUTOR CHOICE OF OPTIONS

Regardless of the Board's decision with respect to Distributor choice, Hydro One believes it is the OEB's role to communicate to Ontario consumers the key objectives with respect to proposed changes to the rate design of distribution charges.

Hydro One has always advocated for flexibility and choice when it comes to addressing the issue of revenue decoupling. We believe this continues to be the right approach for the rate design options presented in the Report, but further advocate that the option of **no change to the status quo rate design approach** be available to Distributors. As part of its rates application a Distributor would defend why a particular approach was selected.

If distributors are offered the choice of maintaining the status quo rate design approach, an alternative that could be adopted which is directionally consistent with Option 1 would be to set a fixed revenue target (e.g. 70%, 80% or 90%) that would leave an acceptable amount of revenue requirement tied to consumption. The distributor could phase-in an increase from their current fixed charge split to the target level over a specified period of time. This would achieve the Board objectives in a measured approach that would have minimal implementation issues while mitigating the impact to customers.

If Option 3 is to be adopted, Hydro One believes the Board should either specify, or provide direction for setting, all parameters required under Option 3, including: 1) the boundary between low/med/high consumption groups, and 2) the "base" fixed charge amount that is independent of consumption. The choice of "base" fixed charge amount will significantly affect the impact of this option on customers, and will need to be carefully selected.

4. IMPLEMENTATION ISSUES

Hydro One believes that consumer education and ensuring that the bill clearly identifies the fixed Distribution delivery component on customer's bills will be the key factor in successfully implementing any of the proposed options.

Option 1 is relatively easy to implement. It would require the least of amount of change to people, process, technology, and reduced effort in consumer education.

Option 2 has a number of implementation issues and would require significant effort to administer and enforce. Currently Hydro One does not have this information in our systems, and a significant effort at considerable cost would be required to collect, store, verify, and continuously update data on customer connection data. It would also be necessary to develop a mechanism to ensure customers notify their Distributor of any service upgrades. Option 2 also has the potential to incent customers to undersize their service which could result in a safety issue.

From a billing system perspective Option 3 is complex to implement and would result in creating 3 sub-classes (low/med/high on-peak use) for each residential class within the billing system and

5 sub classes (<30,30-60,60-80, 80-90 and >90) for each of the GSe/UGe rate classes. For Hydro one, this will effectively increase 6 rate classes to 22 rate classes from a billing system perspective. New processes would also have to be developed to address new customers and move in/move outs customers given there would be no peak use history available on which to base putting the customer into one of the three groups.

Option 3 would also require a considerable and costly effort associated with annually updating the low/med/high (and 5 GSe/UGe) groups, and then communicating any rate grouping changes to customers. Option 3 will require explicit rules for doing the ongoing updates and a dispute resolution process when customers challenge their rate grouping. It is anticipated that there would be considerable push-back from customers moving from lower rate to higher rate groups and so it may be appropriate to consider some form of “deadband” around the boundaries of the groups for customers that would be moving.

Option 3 is not readily implemented for consumers that do not have communicating smart meters (of which Hydro One has about 150,000) and for whom data is not available on consumption over TOU periods. The Board should provide direction on how these customers should be addressed if Option 3 is to be used.

Hydro One also anticipates an issue with large numbers of customers potentially choosing to disconnect/reconnect from the distribution system in order to avoid paying monthly fixed charges (e.g. Seasonal customers that shut down their cottages for an extended period). This would drive an increase in costs that is not offset by the current \$65 per disconnect or reconnect charge established by the “2006 Rate Handbook”, which has not been updated since 2006. It would also result in lost revenue to the Distributor. A mechanism for addressing this lost revenue would have to be developed.

The treatment and disposition of variance accounts via riders will need to be examined by the Board as part of this rate design proceeding. If “fixing” the distribution charge is a goal, presumably all riders would also have to be “fixed”. This may introduce inconsistencies between how variance accounts costs were incurred versus how they are disposed of. As an example, the RSVA- Wholesale Market Service Charge is typically a large amount to be cleared for many Distributors. Since the amount in the RSVA-WMSC account is directly attributable to a customer’s kWh consumption, there would be a misalignment between costs and disposition of those costs under a fixed rider scenario.

It is clear from Table 1 to this response that there are large numbers of customers that would experience significant impacts as a result of implementing Option 1 as proposed. The impacts result from the diversity in consumption for customers in these rate classes. The large impacts at the extremes of high and low consumption, particularly for the GSe/UGe rate classes, are only somewhat mitigated by Option 3 (as shown in Tables 2 and 3). This suggests that it may be necessary to create additional rate classes for GSe/UGe customers that groups “like” customers together in order to better align with cost causality and mitigate impacts.

If the options proposed in the Report are not modified in some way that mitigates impacts, it is anticipated that some form of customer-specific bill impact mitigation would be required.

Distributors will look to the Board for direction on how such mitigation should be done: What are the criteria for determining who would be eligible for mitigation? What are the criteria for determining how much mitigation individual customers would receive? How long will the mitigation be in place? How will the cost of mitigation be funded?

6. CONCLUDING COMMENTS

In consideration of its comments above, Hydro One offers the following concluding remarks:

- Hydro One has concerns with addressing revenue decoupling via a rate design solution. It is not clear that fixed charges under the options proposed in the Report would fully deliver on the Board's stated objectives.
- Given the impact on customers from the rate design options proposed in the Report, and the current level of customer dissatisfaction with high bills, there needs to be considerable thought given as to how and when changes should be made that can result in an increase to customers' bills.
- Hydro One would encourage the Board to expand the level of consultation to more adequately represent customer classes and locations given the magnitude of the bill impacts under the proposed options.
- The OEB needs to ensure consistent communications with consumers on why changes to the collection of distribution charges are necessary and why this is an improvement to the status quo. This is likely best managed by the OEB issuing these communications.
- Given the complexity of rate implementation, the magnitude of customer impacts, and the diversity of customers served, the Board is encouraged to allow Distributors flexibility in selecting the rate design option to adopt, including choosing to maintain the status quo rate design approach.
- Distributors will require adequate time to implement any mandated changes.
- Direction will be required on how a change in rate design will be implemented for those Distributors in the midst of multi-year rate applications.
- Adopting any of the options has the potential to increase a Distributor's costs, which will require some variance account treatment, or other method, to recover these incremental costs.
- "Fixing" revenues may increase the risk to a Distributor's net income.

If the Board decides to mandate adoption of one of the options proposed in the Report, Hydro One would recommend the Board adopt Option 1 for the following reasons:

- Simpler to define and set rates.
- Easier to explain to customers (improved customer literacy and tools).
- Provides most stability in customers' rates going forward.
- Fewer issues with implementation and on-going administration.
- While Option 1 is more impactful on some customers, the impacts are significant for all options and some form of bill impact mitigation could be adopted to reduce customer impacts.

Attachment 1

Distribution and Total Bill Impacts of Option 1 on Hydro One Residential and GSe/UGe Customers

UR

Monthly Consumption (kWh)	Option 1			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
50	18.60	103.8%	18.92	73.7%
100	17.33	90.2%	17.62	52.8%
500	7.10	24.12%	7.22	7.61%
1000	-5.69	-13.5%	-5.78	-3.4%
2000	-31.26	-46.1%	-31.79	-9.8%
3000	-56.83	-60.9%	-57.79	-12.1%

Gse

Monthly Consumption (kWh)	Option 1			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
1,000	34.31	42.8%	34.90	16.8%
2,000	-5.94	-4.9%	-6.04	-1.6%
5,000	-126.69	-52.5%	-128.84	-14.7%
10,000	-327.94	-74.1%	-333.51	-19.5%
15,000	-529.19	-82.2%	-538.18	-21.2%
20,000	-730.44	-86.5%	-742.85	-22.0%

R1

Monthly Consumption (kWh)	Option 1			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
50	28.42	110.3%	28.91	85.8%
100	26.73	97.3%	27.18	64.9%
500	13.17	32.1%	13.39	12.5%
1000	-3.78	-6.5%	-3.85	-2.0%
2000	-37.68	-41.0%	-38.32	-10.9%
3000	-71.58	-56.9%	-72.80	-14.1%

Uge

Monthly Consumption (kWh)	Option 1			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
1,000	31.39	101.4%	31.93	20.1%
2,000	14.55	30.4%	14.80	4.9%
5,000	-35.97	-36.6%	-36.58	-5.0%
10,000	-120.17	-65.8%	-122.21	-8.4%
15,000	-204.37	-76.6%	-207.84	-9.6%
20,000	-288.57	-82.2%	-293.47	-10.2%

R2

Monthly Consumption (kWh)	Option 1			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
50	43.57	68.7%	44.31	61.6%
100	41.71	63.9%	42.42	52.8%
500	26.82	33.5%	27.27	18.5%
1000	8.20	8.3%	8.33	3.6%
2000	-29.04	-21.4%	-29.54	-7.4%
3000	-66.28	-38.3%	-67.41	-11.9%

Seasonal

Monthly Consumption (kWh)	Option 1			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
50	27.20	98.1%	27.67	77.5%
100	23.10	72.6%	23.49	50.8%
500	-9.72	-15.0%	-9.89	-7.5%
1000	-50.75	-48.0%	-51.62	-21.8%
2000	-132.81	-70.7%	-135.07	-30.1%
3000	-214.87	-79.6%	-218.53	-33.1%

Attachment 2

Distribution and Total Bill Impacts of Option 3 (Summer Peak) on Hydro One Residential and GSe/UGe Customers

UR												
Monthly Consumption (kWh)	Option 3 (Summer Pk)											
	Low				Med				High			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
50	-2.71	-15.1%	-2.75	-10.7%	17.01	94.9%	17.30	67.4%	72.38	403.9%	73.61	286.8%
100	-3.99	-20.8%	-4.05	-12.2%	15.73	82.0%	16.00	48.0%	71.10	370.4%	72.31	216.8%
500	-14.22	-48.3%	-14.46	-15.2%	5.51	18.7%	5.60	5.9%	60.88	206.9%	61.91	65.3%
1000	-27.00	-64.0%	-27.46	-16.0%	-7.28	-17.2%	-7.40	-4.3%	48.09	113.9%	48.91	28.5%
2000	-52.57	-77.6%	-53.46	-16.4%	-32.85	-48.5%	-33.41	-10.3%	22.52	33.2%	22.90	7.0%
3000	-78.14	-83.7%	-79.47	-16.6%	-58.42	-62.6%	-59.41	-12.4%	-3.05	-3.3%	-3.10	-0.6%

R1												
Monthly Consumption (kWh)	Option 3 (Summer Pk)											
	Low				Med				High			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
50	-6.67	-25.9%	-6.78	-20.1%	25.24	97.9%	25.66	76.2%	120.92	469.3%	122.97	364.9%
100	-8.36	-30.4%	-8.50	-20.3%	23.54	85.7%	23.94	57.2%	119.22	434.2%	121.25	289.6%
500	-21.92	-53.4%	-22.29	-20.8%	9.98	24.3%	10.15	9.5%	105.66	257.6%	107.46	100.3%
1000	-38.87	-67.1%	-39.53	-20.9%	-6.97	-12.0%	-7.09	-3.8%	88.71	153.0%	90.22	47.8%
2000	-72.77	-79.2%	-74.01	-21.0%	-40.87	-44.5%	-41.56	-11.8%	54.81	59.7%	55.74	15.8%
3000	-106.67	-84.8%	-108.48	-21.1%	-74.77	-59.4%	-76.04	-14.8%	20.91	16.6%	21.27	4.1%

R2												
Monthly Consumption (kWh)	Option 3 (Summer Pk)											
	Low				Med				High			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
50	-35.36	-55.8%	-35.96	-50.0%	30.08	47.4%	30.59	42.5%	295.94	466.8%	300.97	418.1%
100	-37.22	-57.0%	-37.86	-47.1%	28.22	43.2%	28.70	35.7%	294.08	450.7%	299.08	372.3%
500	-52.12	-65.0%	-53.01	-36.0%	13.32	16.6%	13.55	9.2%	279.18	348.3%	283.93	193.0%
1000	-70.74	-71.6%	-71.94	-31.2%	-5.30	-5.4%	-5.39	-2.3%	260.56	263.8%	264.99	114.9%
2000	-107.98	-79.4%	-109.82	-27.6%	-42.54	-31.3%	-43.26	-10.9%	223.32	164.2%	227.12	57.1%
3000	-145.22	-83.8%	-147.69	-26.2%	-79.78	-46.0%	-81.14	-14.4%	186.08	107.4%	189.24	33.5%

Seasonal												
Monthly Consumption (kWh)	Option 3 (Summer Pk)											
	Low				Med				High			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
50	-12.82	-46.2%	-13.04	-36.5%	18.70	67.4%	19.01	53.3%	166.78	601.4%	169.61	475.3%
100	-16.93	-53.2%	-17.21	-37.2%	14.59	45.8%	14.84	32.1%	162.67	511.0%	165.44	357.4%
500	-49.75	-76.9%	-50.60	-38.6%	-18.23	-28.2%	-18.54	-14.1%	129.85	200.8%	132.06	100.8%
1000	-90.78	-85.9%	-92.32	-38.9%	-59.26	-56.1%	-60.27	-25.4%	88.82	84.0%	90.33	38.1%
2000	-172.84	-92.1%	-175.78	-39.2%	-141.32	-75.3%	-143.72	-32.0%	6.76	3.6%	6.87	1.5%
3000	-254.90	-94.5%	-259.23	-39.2%	-223.38	-82.8%	-227.18	-34.4%	-75.30	-27.9%	-76.58	-11.6%

GSe																				
Monthly Consumption (kWh)	Option 3 (summer Pk)																			
	Under 30%				30-60%				60-80%				80-90%				Over 90%			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
1,000	-61.85	-77.2%	-62.90	-30.2%	-21.95	-27.4%	-22.32	-10.7%	31.40	39.2%	31.93	15.3%	137.29	171.4%	139.62	67.0%	394.42	492.5%	401.13	192.6%
2,000	-102.10	-84.8%	-103.84	-27.7%	-62.20	-51.7%	-63.26	-16.9%	-8.85	-7.4%	-9.00	-2.4%	97.04	80.6%	98.69	26.3%	354.17	294.3%	360.19	96.1%
5,000	-222.85	-92.4%	-226.64	-25.9%	-182.95	-75.9%	-186.06	-21.3%	-129.60	-53.8%	-131.80	-15.1%	-23.71	-9.8%	-24.11	-2.8%	233.42	96.8%	237.39	27.1%
10,000	-424.10	-95.9%	-431.31	-25.2%	-384.20	-86.9%	-390.73	-22.9%	-330.85	-74.8%	-336.47	-19.7%	-224.96	-50.9%	-228.78	-13.4%	32.17	7.3%	32.72	1.9%
15,000	-625.35	-97.2%	-635.98	-25.0%	-585.45	-91.0%	-595.40	-23.4%	-532.10	-82.7%	-541.15	-21.3%	-426.21	-66.2%	-433.46	-17.1%	-169.08	-26.3%	-171.95	-6.8%
20,000	-826.60	-97.8%	-840.65	-24.9%	-786.70	-93.1%	-800.07	-23.7%	-733.35	-86.8%	-745.82	-22.1%	-627.46	-74.3%	-638.13	-18.9%	-370.33	-43.8%	-376.63	-11.2%

UGe																				
Monthly Consumption (kWh)	Option 3 (Summer Pk)																			
	Under 30%				30-60%				60-80%				80-90%				Over 90%			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
1,000	-21.03	-67.9%	-21.39	-13.5%	-13.20	-42.6%	-13.42	-8.5%	24.21	78.2%	24.62	15.5%	86.20	278.4%	87.67	55.3%	281.97	910.8%	286.76	180.8%
2,000	-37.87	-79.2%	-38.51	-12.8%	-30.04	-62.8%	-30.55	-10.1%	7.37	15.4%	7.50	2.5%	69.36	145.1%	70.54	23.4%	265.13	554.7%	269.64	89.4%
5,000	-88.39	-89.9%	-89.89	-12.3%	-80.56	-81.9%	-81.93	-11.2%	-43.15	-43.9%	-43.88	-6.0%	18.84	19.2%	19.16	2.6%	214.61	218.3%	218.26	29.8%
10,000	-172.59	-94.6%	-175.52	-12.1%	-164.76	-90.3%	-167.56	-11.6%	-127.35	-69.8%	-129.51	-9.0%	-65.36	-35.8%	-66.47	-4.6%	130.41	71.4%	132.63	9.2%
15,000	-256.79	-96.3%	-261.16	-12.1%	-248.96	-93.3%	-253.19	-11.7%	-211.55	-79.3%	-215.15	-9.9%	-149.56	-56.1%	-152.10	-7.0%	46.21	17.3%	47.00	2.2%
20,000	-340.99	-97.2%	-346.79	-12.0%	-333.16	-94.9%	-338.82	-11.8%	-295.75	-84.3%	-300.78	-10.4%	-233.76	-66.6%	-237.73	-8.3%	-37.99	-10.8%	-38.64	-1.3%

Attachment 3

Distribution and Total Bill Impacts of Option 3 (Winter Peak) on Hydro One Residential and GSe/UGe Customers

UR												
Monthly Consumption (kWh)	Option 3											
	Low				Med				High			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
50	0.95	5.3%	0.97	3.8%	18.55	103.5%	18.87	73.5%	54.26	302.8%	55.18	215.0%
100	-0.33	-1.7%	-0.33	-1.0%	17.28	90.0%	17.57	52.7%	52.98	276.0%	53.88	161.5%
500	-10.56	-35.9%	-10.74	-11.3%	7.05	24.0%	7.17	7.6%	42.75	145.3%	43.48	45.8%
1000	-23.34	-55.3%	-23.74	-13.8%	-5.74	-13.6%	-5.83	-3.4%	29.96	71.0%	30.47	17.7%
2000	-48.91	-72.2%	-49.74	-15.3%	-31.31	-46.2%	-31.84	-9.8%	4.39	6.5%	4.47	1.4%
3000	-74.48	-79.8%	-75.75	-15.8%	-56.88	-60.9%	-57.84	-12.1%	-21.18	-22.7%	-21.54	-4.5%

R1												
Monthly Consumption (kWh)	Option 3											
	Low				Med				High			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
50	-1.85	-7.2%	-1.88	-5.6%	27.99	108.6%	28.46	84.5%	92.03	357.2%	93.59	277.7%
100	-3.54	-12.9%	-3.60	-8.6%	26.29	95.7%	26.74	63.9%	90.33	329.0%	91.87	219.5%
500	-17.10	-41.7%	-17.39	-16.2%	12.73	31.0%	12.95	12.1%	76.77	187.2%	78.08	72.9%
1000	-34.05	-58.7%	-34.63	-18.3%	-4.22	-7.3%	-4.29	-2.3%	59.82	103.2%	60.84	32.2%
2000	-67.95	-74.0%	-69.11	-19.6%	-38.12	-41.5%	-38.77	-11.0%	25.92	28.2%	26.36	7.5%
3000	-101.85	-81.0%	-103.58	-20.1%	-72.02	-57.3%	-73.24	-14.2%	-7.98	-6.3%	-8.11	-1.6%

R2												
Monthly Consumption (kWh)	Option 3											
	Low				Med				High			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
50	-25.61	-40.4%	-26.05	-36.2%	35.90	56.6%	36.51	50.7%	235.66	371.7%	239.66	333.0%
100	-27.47	-42.1%	-27.94	-34.8%	34.04	52.2%	34.62	43.1%	233.80	358.3%	237.77	296.0%
500	-42.37	-52.9%	-43.09	-29.3%	19.14	23.9%	19.47	13.2%	218.90	273.1%	222.62	151.4%
1000	-60.99	-61.8%	-62.03	-26.9%	0.52	0.5%	0.53	0.2%	200.28	202.8%	203.68	88.3%
2000	-98.23	-72.2%	-99.90	-25.1%	-36.72	-27.0%	-37.34	-9.4%	163.04	119.9%	165.81	41.7%
3000	-135.47	-78.2%	-137.77	-24.4%	-73.96	-42.7%	-75.21	-13.3%	125.80	72.6%	127.94	22.7%

Seasonal												
Monthly Consumption (kWh)	Option 3											
	Low				Med				High			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
50	-14.74	-53.2%	-14.99	-42.0%	16.34	58.9%	16.62	46.6%	187.10	674.7%	190.28	533.2%
100	-18.85	-59.2%	-19.17	-41.4%	12.24	38.5%	12.45	26.9%	183.00	574.8%	186.11	402.1%
500	-51.67	-79.9%	-52.55	-40.1%	-20.58	-31.8%	-20.93	-16.0%	150.18	232.3%	152.73	116.5%
1000	-92.70	-87.7%	-94.28	-39.8%	-61.61	-58.3%	-62.66	-26.4%	109.15	103.3%	111.00	46.8%
2000	-174.76	-93.1%	-177.73	-39.6%	-143.67	-76.5%	-146.11	-32.5%	27.09	14.4%	27.55	6.1%
3000	-256.82	-95.2%	-261.19	-39.5%	-225.73	-83.7%	-229.57	-34.7%	-54.97	-20.4%	-55.91	-8.5%

GSe																				
Monthly Consumption (kWh)	Option 3																			
	Under 30%				30-60%				60-80%				80-90%				Over 90%			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
1,000	-65.11	-81.3%	-66.22	-31.8%	-32.65	-40.8%	-33.21	-15.9%	36.75	45.9%	37.37	17.9%	143.20	178.8%	145.64	69.9%	419.72	524.1%	426.86	205.0%
2,000	-105.36	-87.6%	-107.16	-28.6%	-72.90	-60.6%	-74.14	-19.8%	-3.50	-2.9%	-3.56	-0.9%	102.95	85.6%	104.71	27.9%	379.47	315.3%	385.92	102.9%
5,000	-226.11	-93.8%	-229.96	-26.3%	-193.65	-80.3%	-196.94	-22.5%	-124.25	-51.5%	-126.36	-14.4%	-17.80	-7.4%	-18.10	-2.1%	258.72	107.3%	263.12	30.1%
10,000	-427.36	-96.6%	-434.63	-25.4%	-394.90	-89.3%	-401.61	-23.5%	-325.50	-73.6%	-331.04	-19.4%	-219.05	-49.5%	-222.77	-13.0%	57.47	13.0%	58.45	3.4%
15,000	-628.61	-97.7%	-639.30	-25.1%	-596.15	-92.6%	-606.29	-23.9%	-526.75	-81.8%	-535.71	-21.1%	-420.30	-65.3%	-427.44	-16.8%	-143.78	-22.3%	-146.22	-5.8%
20,000	-829.86	-98.2%	-843.97	-25.0%	-797.40	-94.4%	-810.96	-24.0%	-728.00	-86.2%	-740.38	-21.9%	-621.55	-73.6%	-632.11	-18.7%	-345.03	-40.8%	-350.89	-10.4%

UGe																				
Monthly Consumption (kWh)	Option 3																			
	Under 30%				30-60%				60-80%				80-90%				Over 90%			
	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)	Change in DX Bill (\$)	Change in DX Bill (%)	Change in Total Bill (\$)	Change in Total Bill (%)
1,000	-16.75	-54.1%	-17.03	-10.7%	3.11	10.0%	3.16	2.0%	36.03	116.4%	36.64	23.1%	82.77	267.3%	84.18	53.1%	200.02	646.0%	203.42	128.3%
2,000	-33.59	-70.3%	-34.16	-11.3%	-13.73	-28.7%	-13.96	-4.6%	19.19	40.1%	19.51	6.5%	65.93	137.9%	67.05	22.2%	183.18	383.2%	186.29	61.7%
5,000	-84.11	-85.5%	-85.54	-11.7%	-64.25	-65.3%	-65.34	-8.9%	-31.33	-31.9%	-31.87	-4.4%	15.41	15.7%	15.67	2.1%	132.66	134.9%	134.91	18.4%
10,000	-168.31	-92.2%	-171.17	-11.8%	-148.45	-81.3%	-150.97	-10.4%	-115.53	-63.3%	-117.50	-8.1%	-68.79	-37.7%	-69.96	-4.8%	48.46	26.5%	49.28	3.4%
15,000	-252.51	-94.7%	-256.80	-11.9%	-232.65	-87.2%	-236.61	-10.9%	-199.73	-74.9%	-203.13	-9.4%	-152.99	-57.4%	-155.59	-7.2%	-35.74	-13.4%	-36.35	-1.7%
20,000	-336.71	-96.0%	-342.43	-11.9%	-316.85	-90.3%	-322.24	-11.2%	-283.93	-80.9%	-288.76	-10.0%	-237.19	-67.6%	-241.22	-8.4%	-119.94	-34.2%	-121.98	-4.2%