ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Sch.B, as amended;

AND IN THE MATTER OF an application by Hydro One Inc., Hydro One Networks Inc. and Orillia Power Distribution Corporation under sections 86(2)(b), 86(1)(a), 78, 77(5), and 74 of the *Ontario Energy Board Act, 1998*, as the case may be, for the relief necessary to effect Hydro One Inc.'s purchase of all issued and outstanding shares of Orillia Power Distribution Corporation, the disposition of Orillia Power Distribution Corporation's distribution system to Hydro One Networks Inc. and the transfer by Hydro One Inc. of that distribution system to Hydro One Networks Inc.

AND IN THE MATTER OF an application by Hydro One Networks Inc., 1937680 Ontario Inc., Peterborough Distribution Inc., and AmalCo (defined in the Argument in Chief), under sections 86(1)(a), 86(1)(c), 78, 18, 77(5), and 74 of the *Ontario Energy Board Act, 1998,* as the case may be, for the relief necessary to effect Hydro One Networks Inc.'s purchase of the electricity distribution system assets of Peterborough Distribution Inc.

FINAL ARGUMENT
OF THE
SCHOOL ENERGY COALITION

December 20, 2019

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1 GENERAL COMMENTS

1.1 *Introduction*

1.1.1 On October 12, 2018 the Applicants Hydro One Networks Inc. and its affiliates (collectively "Hydro One") and Peterborough Distribution Inc. ("PDI") filed an Application under section 86 of the OEB Act to allow Hydro One to acquire all of the distribution assets of PDI in various steps, plus related relief. That is EB-2018-0242.

1.1.2 On September 26, 2018 the Applicants Hydro One Networks and its affiliates (collectively "Hydro One") and Orillia Power Distribution Corporation ("OPDC") filed an Application under section 86 of the OEB Act to allow Hydro One to acquire all of the shares of OPDC, and then all of the distribution assets of OPDC, in various steps, plus related relief. That is EB-2018-0270. This proceeding is essentially identical to a previous application for the same relief, EB-2016-0276 (the "Original Orillia Application"), which after motions for review (EB-2017-0320 – the "First Orillia Motion for Review"), was ultimately rejected by the Board on April 12, 2018 because the application failed to meet the no harm test. A further motion for review (EB-2018-0171 – the "Second Orillia Motion for Review") was then rejected by the Board on August 23, 2018 as failing to meet the threshold test.

1.1.3 A motion by SEC to deny the EB-2018-0270 Application on the grounds of *res judicata* and other grounds was rejected by the Board on March 12, 2019 (the "SEC Motion"). The Board made clear that its decision on the SEC Motion was not prejudging whether there was sufficient new evidence to change the decision in the Original Orillia Application, but was exercising its discretion to test the new evidence through discovery and a hearing.

1.1.4 Although the two current proceedings initially were separate, and there were separate discoveries for each, the Board in Procedural Order #6 determined that for the purposes of the Technical Conference in July, the two applications would be considered together given their many common issues. In Procedural Order #8, the Board continued that practice by ordering a combined oral hearing in December.

1.1.5 The basics of the rate proposal made by Hydro One in these Applications are the same as the rate proposal made to the Board with respect to previous acquired utilities Norfolk, Haldimand, and Woodstock, in EB-2017-0049, the Hydro One 2018-2022 Distribution Rates Case (the "Dx Rate Case"). In EB-2017-0049, the Board rejected that rate proposal.

1.1.6 The Arguments in Chief of Hydro One for each proceeding, PDI for EB-2018-0242, and OPDC for EB-2018-0270 (collectively the "Argument in Chief" or "AIC") were filed on December 13, 2019.

1.1.7 This is the Combined Final Argument of the School Energy Coalition for both Applications.

1.1.8 The Board will be aware that some of the customer groups who intervened in this proceeding have worked together to avoid duplication, including sharing ideas, positions, and drafts. We have been assisted in preparing this Final Argument by that co-operation amongst parties.

1.1.9 SEC has organized this Final Argument around the various aspects of the no harm test. We have also made submissions on some aspects of the approvals requested, in the event that the Board determines that it wishes to give any approvals with conditions.

1.1.10 There are some issues on which SEC has made no submissions. Where that is the case, that does not indicate that SEC agrees with all or any part of the Applications. Silence is just silence.

1.2 The Context of MAADs Applications

1.2.1 MAADs Applications are not like rate applications. In a rate application, the Board tries to get the best evidence possible, knowing that it will still be imperfect. The Board can take an incremental approach, or it can approve costs with limits, or on condition that certain facts arise. It can balance risks and rewards. Further, if the evidence and/or even the decision still ends up being not quite perfect, there is an opportunity fairly soon to fix the problem.

1.2.2 MAADs applications are different: they are binary (yes/no decisions), and they are permanent. Once approval is given to merge two distributors, it is essentially impossible to undo the transaction if it turns out the assumptions on which the approval was based did not come to pass. The Board saw that in EB-2017-0049.

1.2.3 In considering whether the no harm test is satisfied in these cases, the Board is faced with those problems of yes/no and permanence. The Board can't say maybe, and the Board can't be incremental. If the Board says yes to Hydro One, the acquired customers will be permanently affected.

1.2.4 SEC's positions in this Final Argument are reflective of that permanence, and the risks that an approval would create for the affected customers, including many schools. If the tone in this Final Argument appears harsh, that is because there is only one opportunity to stop Hydro One from harming these 51,000 customers. We can't afford to be gentle about it.

1.3 ***Basic SEC Position – It's Time to Shut Down Hydro One's Acquisition Strategy***

1.3.1 SEC has been fighting since 2013 to convince the Board that acquisitions by Hydro One of electricity distributors will result in harm to the acquired customers. Hydro One is a high cost utility that has a long history of harming acquired customers, and, just as in the Norfolk, Haldimand, and Woodstock cases, there is no reason to believe that Hydro One will be able to serve the Orillia and Peterborough customers at a lower cost than would be the case without the proposed acquisitions.

1.3.2 SEC has consistently and strongly supported the underlying goals of distributor consolidation. Done right, distributor consolidation can put downward pressure on rates, and improve the quality of services to customers. Ontario has a history of successful distributor consolidation transactions, many of which have had the active support of SEC.

1.3.3 That is not always true, however. As with many things in the Board's jurisdiction, the devil is truly in the details. This case is, in our view, the Board's best opportunity to ensure that distributor consolidation actually helps the customers, rather than permanently harming those customers, as is the case when Hydro One is the acquiror. It is an exercise of the Board's mandate to supervise the industry in a manner that meets the Board's key statutory goals applicable in this context[1]:

> *"1. To protect the interests of consumers with respect to prices and the adequacy, reliability and quality of electricity service.*
>
> *2. To promote economic efficiency and cost effectiveness in the generation, transmission, distribution, sale and demand management of electricity and to facilitate the maintenance of a financially viable electricity industry."*

1.3.4 In the sections below, SEC will look in detail at the components of these two Applications, and the various proposals made by Hydro One.

1.3.5 However, it is important to be clear that there are three main reasons why this Board should not allow Hydro One to acquire these (or any other) LDCs and thus harm their customers:

(a) ***Hydro One is Never a Lower Cost Distributor than Anyone Else.*** Hydro One has not been able to serve any of its customers at a lower cost than any other distributors, and no evidence has been provided to this Board that shows Hydro One will be able to change its stripes and serve the OPDC or PDC customers at a lower cost than status quo.

[1] *Ontario Energy Board Act*, *1998, S.O. 1998, c. 15, Sched. B*, s. 1.

(b) ***Hydro One Has Harmed Every Single Customer They Have Ever Acquired.*** Hydro One has a long history of cranking up prices for acquired customers, without providing better reliability, customer service, or any other improved outcome. As we note later, the possible short term exception may be Norfolk, Haldimand and Woodstock, but only because the Board stepped in to save them. That story is still playing out.

(c) ***Hydro One Has Never Produced Cost Savings from Acquisitions of other LDCs***. Despite its large number of acquisitions, Hydro One has not been able to get its costs down, and has made no attempt to investigate why that is the case. Hydro One's claims that it will generate cost savings from these acquisitions are empty words, since there is no evidence to back them up, and the evidence that is available shows that there will be no cost savings.

1.3.6 Hydro One thinks that it can convince the Board that it should be allowed to acquire other LDCs based on narrative and verbiage that everything will be fine, in the face of data and other hard evidence that clearly shows the opposite.

1.3.7 SEC submits that the Board should stop accepting Hydro One's promises of good things in the future. They cannot and will not deliver on those promises. They made the same promises of a rosy future in the Norfolk, Haldimand and Woodstock cases. They did not deliver, and they still don't know how they are going to deliver. That is because they can't.

1.3.8 SEC believes that the Board should stop listening to Hydro One's narrative, and start listening to hard facts. Those hard facts, described in more detail later in this Final Argument, include:

(a) ***Past History of Harm.*** Hydro One acquired 89 LDCs in 1999 and 2000. The rate increases for the 170,000 customers affected[2] are listed in Schedule A to this Final Argument[3]. For Urban Residential customers, the average increase over 13 years was 113%, and for R1 customers 273%. For Urban Demand Billed, their average increase was 259%, and for the remaining Demand Billed, it was 454%[4].

(b) ***Benchmarking.*** Hydro One has consistently been one of the worst performers in the Board's annual distributor cost benchmarking, which adjusts for

[2] The *1997 Ontario Hydro Municipal Electric Utility Financial & Statistical Summary* showed 140,304 for those utilities in 1997. We have assumed that they increased by an average of 1% per year until now.
[3] See also K1.3, p 19-23.
[4] The attached tables do not include all of the riders, LV charges, and Tx charges seen in the current urban rate comparison, also included in this Final Argument. The information on the full range of charges in 2005 is not as readily available, so only fixed and variable charges are included. Given the size of the rate increases, the point would remain the same if those other charges were added.

business conditions including density. In 2018, Hydro One was 16.0% above expected costs. PDI was 5.8% above expected costs, and OPDC was 5.7% below expected costs. Hydro One was not the worst performer. There were six worse, and fifty-six better, including PDI and OPDC. These are the results AFTER Hydro One supposedly improved[5].

(c) ***Costs to Serve Urban Areas.*** Hydro One claims that their costs are high because they serve a vast rural area, so later in this Final Argument we look at their annual delivery bills for Urban customers only, compared with LDCs that also meet the same urban metrics. Hydro One is higher than each and every one of them, without exception, and for all urban rate classes, and is higher than the average by 35% to 80% depending on the rate class.

(d) ***No Merger Savings***. Since 2005, Hydro One, the most prolific acquiror of other LDCs in the industry, has seen its Dx revenue per customer (a proxy for cost per customer) increase by 45.77%. The rest of the industry has increased by 23.44%[6]. There is no evidence of cost savings from Hydro One mergers.

1.3.9 It is therefore submitted that the Board should stop Hydro One before they do any more damage[7], and instead tell them that their first priority should be to get their own house in order. The Board's message to Hydro One should be: "When you can provide evidence that you actually CAN serve customers at a lower cost than other LDCs, then you can make new acquisition proposals."

1.3.10 SEC submits that nothing the Board has said to Hydro One in the past appears to have made much difference, so a tough stance is justified. It is time to tell Hydro One that actions have consequences. If Hydro One continues to have costs significantly higher than the LDCs they wish to acquire, the result should be that they will not be allowed to acquire those LDCs.

1.4 ***Summary of Submissions***

1.4.1 The detailed submissions of the School Energy Coalition in this Final Argument can be summarized as follows.

1.4.2 ***No Harm Test.*** The acquisitions of PDI and OPDC fail the "no harm" test, for at least the following reasons:

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[5] As discussed later, both the PEG and PSE studies tabled in EB-2017-0049, which are specific to Hydro One, show even worse cost benchmarking performance.
[6] Hydro One $728.69 in 2005, $1,062.20 in 2018. Rest of Industry (excluding Hydro One), $487.06 in 2005, $601.24 in 2018. All data from the 2005 and 2018 Electricity Distributors' Annual Yearbooks. Put another way, Hydro One was 49.6% higher than the rest of the industry, and now it is 76.7% higher than the rest of the industry.
[7] And in this respect we draw to the Board's attention the submissions of the Save PDI Coalition at Tr1:6-12. The same comments could be made about OPDC as well.

(a) ***No Savings.*** Hydro One will not deliver any of the cost savings they are promising. The evidence in this proceeding is overwhelming in this respect.

(b) ***Prices - Acquired.*** The acquired customers will see significantly higher rates than under the status quo scenario, even if the high status quo assumptions were correct. The short-term use of an unprincipled approach to cost allocation to allocate lower costs to acquired customers must eventually give way to a proper cost allocation, and we know from looking at the rates for urban customers what a proper cost allocation would mean for acquired customers. In the meantime, it is not clear that even with the improper cost allocation the acquired customers will not be harmed on price.

(c) ***Prices - Legacy***. If Hydro One tries to keep the prices for acquired customers lower, the necessary result is that legacy customers will be harmed on price, because there are no cost savings to fund price reductions for the acquireds.

(d) ***Customer Service.*** Hydro One's customer service metrics demonstrate that the PDI and OPDC customers will have worse customer service if the acquisitions are allowed to proceed.

(e) ***Reliability.*** Hydro One has not provided appropriate evidence to show that it will be able to maintain or improve on the current reliability metrics of OPDC and PDI. Hydro One is notoriously less reliable than other LDCs.

(f) ***Capital Investment Plans.*** The evidence before the Board is that Hydro One will invest in less infrastructure than PDI and OPDC, but without any related decrease in capital spending. Customers will get less, and pay the same.

1.4.3 ***Use of Conditions to Protect the Customers.*** SEC does not believe it is practical, or technically possible, to give approvals with conditions that ensure the customers will not be harmed. In this situation, SEC believes the obligation of the Board is to protect the customers by saying No to harmful acquisitions proposed by Hydro One.

1.4.4 ***Additional Issues***. Other issues arise in the event that the Board approves the transactions (which we strongly believe is inappropriate), and we have made submissions on those issues in the interests of completeness:

(a) ***Earnings Sharing Mechanism***. Hydro One has not in fact proposed an earnings sharing mechanism. What it has instead proposed is a simple cash payment to the customers of PDI ($1.8 million) and OPDC ($3.2 million) that is based loosely on a forecast of savings, and then reduced below the sharing that forecast would otherwise require. If the Board accepts this structure, it should not be called earnings sharing, and the reduction of the amount due to

Hydro One's risk, and other adjustments, should be removed.

(b) ***Incremental Capital Module.*** The ability to use the ICM should be consistent with the MAADs Policy.

(c) ***Specific Service Charges***. The service charges are rates, and no evidence has been provided that the generic service charges for a largely rural Hydro One are more appropriate for PDI and OPDC customers than the service charges currently in place. The current service charges should be retained, and they should not be changed during any deferred rebasing period.

(d) ***USGAAP***. As long as Hydro One is on USGAAP, it is appropriate that its subsidiaries and new acquisitions also be on USGAAP

(e) ***Deferral and Variance Accounts***. There are substantial balances accruing to the credit of customers in accounts 1575 and/or 1576. It should be a condition of any approval that those balances be cleared to customers as soon as the transactions close.

(f) ***Tax Bump.*** Both transactions would trigger a tax bump, and the Board's policies require that some portion of that bump go to customers. Immediately after closing, Hydro One should be required to file an application to deal with that sharing of the tax benefits.

2 THE NO HARM TEST – COSTS AND RATES

2.1 *Introduction*

2.1.1 In order to support their Applications, Hydro One and the acquired utilities must demonstrate two outcomes when it comes to costs and rates:

(a) There will be cost savings arising out of the transactions (or, at the very least, costs will not be higher).

(b) Those cost savings will translate into lower rates for the acquired and the legacy customers (or, again, at the very least not higher rates).

2.1.2 This section of our Final Argument will show that neither of those two outcomes is supported by the evidence.

2.1.3 First, the evidence demonstrates clearly that there will be no cost savings arising out of the transactions. While the non-empirical "evidence" of Hydro One supports savings, all of the empirical evidence shows that not to be true, and both logic and economic theory support the empirically-driven conclusion.

2.1.4 Second, the only way Hydro One can serve the acquired customers at a lower cost than status quo is by proposing cost allocation that is contrary to basic cost allocation principles, and in fact results in legacy customers subsidizing acquired customers and being worse off than without the transactions.

2.1.5 The only reasonable conclusion that is possible is that, while in general industry consolidation should result in lower overall distribution costs, in the case of acquisitions by Hydro One the opposite is true. These transactions would transfer customers from efficient distribution companies to a much less efficient distribution company, and costs and rates would thus rise.

2.1.6 Therefore, customers – acquired, legacy, or both - will be harmed with respect to both cost and price.

2.2 *Hydro One's Basic Argument in These Applications*

2.2.1 In order for Hydro One's argument to be correct that there will be no harm to PDI and OPDC customers with respect to prices, the following things must be true:

(a) There will be cost savings from the acquisitions[8].

[8] Hydro One agrees that, without cost savings, the transactions do not pass the no harm test: Tr.2:7.

(b) Hydro One has or will be given freedom to allocate the cost savings between legacy and acquired through a "goalposts" approach that is not based on any currently known cost allocation or ratemaking principle.

(c) Hydro One can allocate costs, and charge rates, to newly acquired customers on a different basis than to existing customers, even if that means that similar acquired and legacy customers pay materially different amounts for distribution.

(d) The future can be dealt with in the future – we don't need to decide everything now.

(e) Past history is not relevant to assessing what will actually happen in the future.

2.2.2 SEC submits that, if any of these steps in the Hydro One argument is wrong, the Board should deny these approvals. We will attempt to demonstrate, below, that in fact each and every one of those steps are wrong, and the Board has multiple compelling reasons to stop Hydro One from harming more customers through acquisition.

2.3 ***There Will Be No Cost Savings From These Transactions***

2.3.1 SEC submits that Hydro One will not in fact generate any cost savings as a result of the acquisitions of PDI and OPDC.

2.3.2 The Board can fairly conclude this is true for at least the following reasons:

(a) ***No Net Cost Reductions.*** The immediate and apparent savings from eliminating duplication and reallocating staff will be more than offset by:

(i) Inappropriate assumptions in the forecasts that estimate Hydro One's costs too low and the standalone costs too high.

(ii) Hydro One's inefficiencies in providing the same services as other distributors.

(iii) Higher fully loaded costs for Hydro One to do things.

(iv) Diseconomies of scale due to Hydro One's size and structure.

(b) ***Hydro One is Always Higher Cost.*** Hydro One has never been able to provide service to any service territory at a cost less than any other LDC in the province[9]. There is no evidence that they are suddenly about to start.

[9] With the single exception of Algoma.

(c) ***Hydro One's Own Study Confirms its High Cost.*** Hydro One has studied its cost to serve high density areas like PDI and Orillia, and has found that cost to be higher than any other LDC with a similar service territory.

(d) ***No Empirical Evidence from Hydro One that it has Ever Saved Any Costs Through Acquisitions.*** There is ample past data from previous Hydro One acquisitions. From that data the Board knows three things:

(i) Hydro One has never studied those acquisitions to see if it is actually generating the expected cost savings;

(ii) Without exception, the costs borne by those acquired customers today are higher than the costs borne by customers in any similar LDC; and

(iii) Despite its many acquisitions, Hydro One's costs per customer have consistently gone up at a faster rate than the rest of the distribution sector.

2.3.3 ***Basic Cost Savings Pitch Based on Logic***. It is important to recognize the underlying logic in Hydro One's argument that there will be cost savings:

(a) They can point to duplication of functions and even assets that can be eliminated[10].

(b) They can claim that their vast experience as a distributor means that they can do things more efficiently[11].

(c) They can argue that their buying power allows them to get better prices from suppliers than would be available to a smaller distributor like PDI or OPDC[12].

(d) They can show that ultimately reconfiguring a local system to integrate with the surrounding Hydro One system has inherent savings.

2.3.4 It is enticing to think that this all makes perfectly good sense. We know that Hydro One has an HR department. They don't need another HR department in Peterborough. We know they already have executives, and a Board of Directors, and a finance group. Local versions of those same things in Orillia can be eliminated. We can imagine that a company that sells wood poles will give Hydro One a better deal because they are able to buy so many. All of this is completely logical.

[10] See, e.g. JT2.11, Attach 1., which shows that for PDI Hydro One expects to have no incremental costs for IT, finance, regulatory, governance, and executive, among others, and will cut distribution operating costs by about 60%. See also Tr.T2:121.
[11] Tr.2:89.
[12] Tr.2:9,80.

2.3.5 This logic is also at the heart of government reports and even Board research on the benefits of distributor consolidation. The Board's entire MAADs policy is based on the theory that exactly these things will actually transpire in every distributor consolidation.

2.3.6 It is axiomatic, therefore, that consolidations produce cost savings. How could they not? The Board promotes consolidation precisely because that axiom is true.

2.3.7 In this case, it is not true, as SEC will demonstrate in the sections that follow.

2.3.8 Before doing so, though, it is useful to stress test the axiom. Can we provide an example where everyone would agree that a merger of distributors would not produce cost savings?

2.3.9 We can, in fact.

2.3.10 Imagine the worst distributor you have ever seen in Ontario. They do not look after their system, their shareholder just wants to maximize dividends, and they are top-heavy with mostly incompetent executives and many wasted costs. The shareholder, a municipality, decides to buy another small but well-run utility, reasoning that they can harvest the assets of that system as well as their own to cover their purchase premium, and then have a larger dividend stream going forward. Eventually, reliability and customer service will decline to dangerous lows, but that will just mean that they can come to the regulator and ask for urgent capital budget increases to "renew aging infrastructure".

2.3.11 That acquiror will be able to show that they have average rates (because they are harvesting the assets, which offsets their wasteful executive salaries), and will have excuses for their reliability and customer service failings. They will promise faithfully to keep up the reliability and customer service levels of the acquired utility.

2.3.12 What will actually happen, however, is that bad management will produce poor results on all levels. There will be no cost savings, because new management is incapable and inefficient. Harvesting the assets has an ultimate cost (a higher lifecycle cost, in fact), and the new customers will have to share in that cost, not just for the deterioration of their own assets, but also for the past deterioration of the acquiror's assets. All of the additional spending will be at higher unit costs, because bad management does things less efficiently.

2.3.13 Is there any doubt that, in this extreme example of an acquisition of a well-run distributor by a badly-run distributor, everything will fall apart and everyone will be worse off?

2.3.14 Most consolidations can in fact produce cost savings and other positive results for

customers. That is not because it is axiomatic. That is because in almost every case utility managers take their jobs seriously, and are strongly motivated to find cost savings and improve outcomes for customers.

2.3.15 In short, consolidations themselves do not produce cost savings. Good implementation of consolidations by motivated and talented utility managers produce cost savings. There are no guarantees.

2.3.16 Hydro One has provided no evidence that they can implement a consolidation and produce cost savings. In fact, all of the evidence points the other way.

2.3.17 ***Problems with the Forecasts.*** Hydro One has provided the Board with forecasts of future costs for PDI and OPDC with and without consolidation[13]. The status quo (no consolidation) forecasts for PDI and OPDC were prepared by their respective management, and then adjusted for LV charges[14]. The forecasts for Hydro One were prepared by Hydro One, although not based on detailed analysis of what would actually have to be spent[15]. They are more generic in nature.

2.3.18 SEC is aware that other parties will deal with the year by year forecasts of status quo vs. Hydro One costs to serve PDI and OPDC, so we will not go into that in detail. There are, however, some things that stand out and are probably worth repeating.

2.3.19 OPDC forecasts that its revenue requirement will increase by more than 63.1% from 2019 to 2030 if they are not acquired by Hydro One[16]. This is a compound annual growth rate (CAGR) of 4.55% per year. If this were true, OPDC's revenue requirement would increase faster in the next 11 years than any other Ontario distributor's revenue requirement has increased in the last 11 years.

2.3.20 OPDC and Hydro One argue[17] that this increase is justified because they have not rebased since 2010, and so their current revenue from rates is artificially low. This argument is inconsistent with the facts. As the Board will see in our table in para. 2.3.55 below, OPDC's delivery bills to customers in 2018 were in fact slightly above the average for all other distributors with similar density, so their claim that their rates were artificially low appears to be incorrect. Further, their regulatory ROE has remained in a good range, and they have assumptions (ROE, cost of debt, working capital allowance, depreciation[18]) baked into their current rates that are much higher than current Board assumptions. On rebasing, it is unlikely that there would be a large

[13] And in fact, the Applicants say that the reasonableness of the forecasts is the main issue in this proceeding: OPDC AIC, para. 7.
[14] Tr.1:43 and elsewhere.
[15] Tr.T1:173 and elsewhere.
[16] EB-2018-0270, OEB Staff #12 and Tr.1:53.
[17] Tr.1:53.
[18] Tr.T1:58; Tr.2:62,169; OPDC AIC para. 20.

ten-year jump in their revenue requirement.

2.3.21 Thus, it is not credible that their costs will increase by more than 63% over 11 years. The OPDC status quo thus appears to be a straw man that does not stand up to scrutiny.

2.3.22 A similar conclusion can be reached looking at the PDI forecasts. They show an increase of 53.3% over 11 years, or a compound annual growth rate of 3.96% per year. This would still be about 40% above the average revenue growth of Ontario distributors.

2.3.23 Once more, the explanation is that PDI has not rebased since 2013, and so has some catchup to do on rebasing. The comparison to peers in 2018[19], however, shows that PDI, which prides itself in being a low cost distributor, is in fact just about right on the average of its (similar density) peers, or perhaps a little higher. For many of the other reasons noted for OPDC, it would also not face a huge rate increase on rebasing.

2.3.24 There are also a number of problems with the Hydro One forecasts, which appear to forecast very low incremental costs to serve PDI and OPDC, and appear to leave some things out.

2.3.25 One thing that got much attention, for example, is the fact that an $18.1 million part of Hydro One's capital budget for PDI assumes 6 station replacement/ refurbishments[20], whereas the comparable PDI forecast of $18.4 million for the same period assumes 9 station replacement/refurbishments. Hydro One tried to walk this statement back more than once[21], but it was pretty clear that Hydro One was simply going to include fewer stations in their plans, for the same money. This could either be an underestimate of Hydro One costs (if nine really have to be dealt with, as PDI forecasts), or it could be an overestimate of PDI costs, if Hydro One's forecasts are right.

2.3.26 What struck SEC more clearly, though, was that Hydro One does not expect any incremental costs in common activities, the ones where separate PDI and OPDC departments are no longer required. The 51,000 customers added for PDI and OPDC represent an increase at Hydro One of about 3.9%. When you include the 60,000 added for Norfolk, Haldimand, and Woodstock, for which Hydro One also assumes that there are no incremental common costs[22], that is an 8.8% increase in number of customers for Hydro One over about five years, on top of their organic growth.

[19] Para. 2.3.55 below.
[20] Tr.T1:167-8.
[21] E.g. Tr.1:114, 116; Tr.2:81, etc.
[22] Tr.T2:121.

2.3.27 Despite that, Hydro One assumes that no more customer care personnel are required, there are already enough in the finance and HR departments, and head office personnel will be exactly the same.

2.3.28 The Hydro One assumption appears to be that adding additional customers does not increase any shared costs to serve those customers[23]. This is not realistic.

2.3.29 SEC could go on to deal with the many flaws of the forecasts, but we will leave that to others.

2.3.30 ***Cost per Customer Comparisons.*** The best way to compare the status quo vs. Hydro One forecasts, in any case, is to compare the results on a cost per customer basis. SEC did that, and the results that were put to the witnesses and accepted were as follows[24]:

Comparison of Assumed Cost Per Customer Increases

Rate Class	*2019*	*2030*	*Increase*	*CAGR*
Hydro One				
UR	$424.00	$517.00	21.93%	1.82%
UGe	$1,276.00	$1,475.00	15.60%	1.33%
UGd	$16,413.00	$17,506.00	6.66%	0.58%
Orillia (no deal)				
Residential	$357.00	$526.00	47.34%	3.58%
GS<50	$1,155.00	$1,726.00	49.44%	3.72%
GS>50	$14,430.00	$21,587.00	49.60%	3.73%
Peterborough (no deal)				
Residential	$300.00	$433.00	44.33%	3.46%
GS<50	$749.00	$1,044.00	39.39%	3.07%
GS>50	$9,567.00	$13,525.00	41.37%	3.20%

Sources:
EB-2018-0242 SEC #44
EB-2018-0270 Staff #12

2.3.31 During the hearing, this was discussed[25]. It is worthwhile to put these figures in perspective.

2.3.32 Hydro One is expecting its CAGR for urban customers to increase by an average of about 1.24%. In the period 2005 – 2018, Hydro One's distribution revenue per customer increased at a CAGR of 2.95%[26], more than double the assumptions in the

[23] See, e.g. JT2.11.
[24] K1.3, p. 7.
[25] E.g. Tr.2:53-6.
[26] For further details, see para. 2.3.83 of this Final Argument.

Hydro One forecast.

2.3.33 OPDC and PDI, on the other hand, are expecting their CAGR to increase by averages of 3.68% and 3.24% respectively. In the period 2005 – 2018, the industry's distribution revenue per customer increased at a CAGR of 1.63%[27], less than half the OPDC and PDI forecast levels.

2.3.34 The shocking aspect of this is that Hydro One expects its costs to serve customers to be lower than its past history, and lower than industry averages, when Hydro One has never been able to keep its costs to serve customers below its peers in the distribution sector. No evidence was filed to explain why this sudden turnaround is in any way believable.

2.3.35 ***Revised Goalposts.*** It is in fact possible to do a more empirical forecast of 2030 revenue requirement for each of OPDC and PDI. From 2010 to 2018, the distribution revenue per customer for the entire distribution industry went up by a CAGR of 1.52% per year. This is therefore the weighted average of all rate increases for IRM, COS, and other reasons, net of increase or decrease in billing determinants (for example due to conservation), and converted to a compound annual growth rate.

2.3.36 Since OPDC last rebased in 2010, and its growth in number of customers has been at a CAGR of 1.14% per year, so based on 1.52%/year its revenue requirement in 2019 should be $9.7 million[28]. This would adjust for the fact that OPDC has not rebased for 9 years. Using the same CAGR of rate increases (1.52%) from the past eight years, and the Applicants' assumed increase in customers of 9.3%, the revenue requirement in 2030 on a status quo basis should be $12.35 million, rather than the $14.45 million currently forecast by OPDC.

2.3.37 The OPDC status quo "goalpost" for 2030 would appear to be $2.1 million too high. The likely number is $12.35 million.

2.3.38 The same exercise can be done for PDI, which last rebased in 2013. Its Board-approved revenue requirement in that year was $14.1 million [29]. The number of customers has grown by just over 5% since that time, which means that you would expect their 2019 revenue requirement to be about $16.2 million. Instead, it is actually $17.2 million[30]. If you then apply the same 1.52% escalation of rates, and the Applicants' forecast 5.5% increase in customers to 2030, you would get $21.2 million if you start with the current $17.2 million, or $20.1 million if you start with the projected current $16.2 million.

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[27] Ibid.
[28] $7.6 million in 2010, escalated by 1.52% and 1.14% annually for nine years, i.e. 26.65%.
[29] EB-2012-0160, final RRWF filed after settlement.
[30] The difference may be in part due to LV charges: Tr.2:61.

2.3.39 The PDI status quo "goalpost" for 2030 would appear to be at least $5.1 million too high, and maybe more. The likely number is $21.2 million.

2.3.40 Meanwhile, the Hydro One "goalposts" of $9.6 million for OPDC[31] and $20.6 million for PDI[32] appear to be too low. It is not possible to estimate what they should be, but it is useful to note that the room between the goalposts for OPDC has shrunk to $2.75 million, and for PDI to $0.6 million, and in each case any under-forecasting by Hydro One in its estimates must be deducted.

2.3.41 Of course, nothing turns on SEC's top-down revenue requirement forecasts vs. the PDI, OPDC and Hydro One bottom up forecasts. The only thing this really shows is that they are forecasts, and it doesn't take a whole lot to make them badly wrong. In this case, the very aggressive assumptions of the Applicants in this case suggest that their forecasts are not useful, and the empirical tests that SEC has employed appear to bear that out.

2.3.42 That doesn't make the SEC forecasts right. They are not. They are forecasts. What it does mean is that the Applicants' forecasts are suspect, and should not be relied on by the Board.

2.3.43 ***No Net Savings.*** The problem with the Hydro One cost savings logic is that it assumes that getting rid of local resources represents net savings. That is not the case, for a number of reasons.

2.3.44 It is not necessary or useful to go through all of the things that will offset, or more than offset, the immediate cost reductions due to reduced local resources, but here are some of the examples:

(a) ***Adding Central Resources.*** Some of the local resources will have to be replaced by increased central resources, such as in customer service, human resources, and elsewhere.

(b) ***Adding Shared Capital***. Hydro One will build new operating centres to serve Orillia and Peterborough, but assumes that they would build the same centres without the acquisitions[33]. It is not reasonable to assume that the general plant needs don't change with the addition of 51,000 customers.

(c) ***A Transfer is Not Necessarily a Reduction***. Most of the local employees that are made redundant will be transferred within Hydro One. There is no savings

[31] EB-2018-0270, OEB 12.
[32] EB-2018-0242, SEC 44.
[33] Tr.T1:52.

unless they replace someone else who is leaving. That will not always be the case. Some of them will just be incremental to Hydro One's existing complement.

(d) Higher Unit Costs[34]. Hydro One is reluctant to compare their unit costs to other distributors (every job is different)[35], and given their cost performance generally that is perhaps understandable. This was an issue in EB-2017-0049 and in EB-2019-0082. It is not a new problem. In these proceedings, we have only two clear pieces of unit cost evidence:

(i) Hydro One will replace/refurbish six Peterborough stations for roughly the same budget as PDI plans to replace/refurbish nine stations[36].

(ii) Virtually all of the cost-based specific service charges of Hydro One are higher than those of PDI or OPDC.

(e) Low Underlying Cost Increases. As discussed in the previous paragraphs above, Hydro One assumes much better future cost control than they have ever experienced in the past, and certainly much better than historically lower cost distributors like OPDC or PDI.

2.3.45 As we have noted above, the Hydro One assumptions don't have to be off by much for all of the claimed cost savings to disappear. In fact, there are so many biases in their assumptions that it would be surprising if they were not significantly off. Given the fact that their history is consistent with no past cost savings, this is the outcome the Board should expect.

2.3.46 ***Diseconomies of Scale.*** Hydro One believes that acquiring PDI and OPDC will produce economies of scale[37]. This is a common fallacy amongst managers.

2.3.47 In fact, economic theory makes clear that there is an optimum size for a given firm in a given situation. Getting to that size involves declining costs per unit of production, known as economies of scale. Once you get to that size, costs per unit of production start going up, known as diseconomies of scale. This is generally shown in a graph such as the one below[38]:

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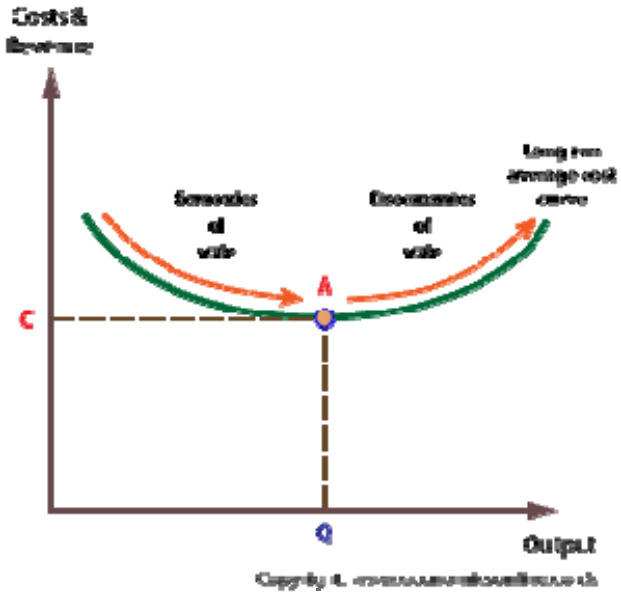
[34] Hydro One admits that higher unit costs could increase costs allocated to PDI and OPDC: Tr.1:112, 117.
[35] Tr.T1:106 and Tr.2:91.
[36] Tr.T1:167-8.
[37] EB-2018-0270 SECV #8. No actual evidence is provided.
[38] This example is from Economics Online, a UK source of basic economics information. The original version of this graph is often cited as Marshall, A. [1920]. *Principles of Economics: An Introductory Volume.* Now 8th ed. Philadelphia: Porcupine Press. Original edition (1890), London: Macmillan. The one in Economics Online appears to originate with Scherer, F. M. and D. Ross. 1990. *Industrial Market Structure and Economic Performance.* 3d ed. Boston: Houghton Mifflin, at p. 101. However, variations on this graph, and explanations of how it works, are



2.3.48 There are many reasons for this effect, and those reasons are also generally well-accepted in the economics literature (with some disagreements at the edges). They can probably be boiled down to the following main categories of factors that increase costs and reduce efficiency[39]:

(a) Larger firms have more interactions between people in order to get things done. A firm with one person has no communication inefficiency, and with two, they generally can co-ordinate easily. With a hundred thousand, communications become complex and inefficient. More time is wasted exchanging information and less time is spend producing goods and services.

(b) As workers get more distant from the decision-making and rewards process, they tend to be less motivated to achieve high levels of quality and efficiency.

(c) "X" inefficiency is a term in economics generally referring to the tendency of larger firms to overpay relative to market salaries, pay higher fully-loaded prices for supplies, and carry out uncompetitive activities such as offering products that are less profitable or not best suited for the market.

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found throughout economics literature. It is well-accepted. Only the details are debated any more.

[39] An excellent if somewhat technical analysis of the complexities of diseconomies of scale is found in S. Canbäck, P. Samouel, and D. Price, *"Do Diseconomies of Scale Impact Firm Size and Performance?",* Journal of Managerial Economics, 2006, Vol. 4, No. 1 (February), pp. 27-70.

(d) Co-ordinating work tends to be more cumbersome in larger companies, not just because of additional communications needs, but also because of the disjunct between decision-makers and doers.

(e) Larger firms tend to have more layers of management and supervision than are efficient. The problem is that there is a practical limit to the number of "direct reports", and that limit can only be respected in larger firms by adding layers of reporting.

(f) A major impact of multiple layers of management is that each manager or supervisor will likely make some decisions that are not precisely in the company's interest (called the "principal-agent problem"). The decisions may be in the manager's personal interest (playing office politics, or hiring a sexy assistant), or they may be due to imprecise understanding of the goals or needs of the company.

2.3.49 Anyone who has worked in a large utility like Hydro One will recognize some of those factors.

2.3.50 The point here is that the Hydro One logic – more units of production means lower cost – is based on an assumption that is just not true for most very large companies. The reason that it in fact costs Hydro One more to serve customers than other utilities is not because they are stupid or lazy. They are neither. The empirical evidence of their costs simply represents a well-known economic reality that would always be a challenge for them to overcome.

2.3.51 The fact that Hydro One will spend more to serve PDI and OPDC customers is therefore not illogical. It is in fact predicted by economic theory, and confirmed by Hydro One's own cost data[40].

2.3.52 ***Hydro One Is Always Higher Cost.*** It seems self-evident to say that Hydro One spends more to serve its customers than other Ontario distributors. With only one exception (Algoma Power), its Distribution Revenue per customer, a good proxy over time for cost per customer, is the highest in Ontario[41]. At $1,062.20, the Hydro One Dx Revenue per customer is 76.7% higher than the weighted average of all other

[40] SEC notes that, if you sort all Ontario distributors by Dx revenue per customer, you will find that the top performing quartile has an average of 36,807 customers, the next quartile has an average of 30,046 customers, the third quartile has an average of 109,359 customers (largely because of Alectra and Hydro Ottawa), and the bottom quartile has an average of 159,306 customers (driven by Toronto Hydro and Hydro One, both right near the bottom). While this is not proof of anything, of course, it is consistent with the expectation that diseconomies of scale would be one of the factors driving costs in large distributors. Of the six large distributors in Ontario, only London Hydro, in the first quartile, and Veridian, in the second quartile, have lower than median Dx revenue per customer. Interestingly, that is despite the fact that both serve some significantly large customers.
[41] 2018 Electricity Yearbook.

distributors (including Algoma) of $601.24.

2.3.53 This is not, we might add, because of customer mix. If customer mix were a factor, there would be at least some distributors - ones dominated by a couple of large customers - that are higher than Hydro One. There are none.

2.3.54 Hydro One argues that their costs are higher because they are a largely rural utility, and that is certainly true to a certain extent. They offer no evidence, however, of the extent to which that rural nature skews their numbers, and no cost comparison that excludes the heavy rural impact.

2.3.55 Thankfully, it is possible to do such a comparison. The criteria for the Hydro One urban classes are a minimum of 3,000 customers in a contiguous geographic area with a density of at least 60 customers per km. of line. There are eight distributors that meet this requirement. The delivery bills for those customers, and the Hydro One urban customers, are shown below[42]:

[42] All data from the 2018 final rate orders of the LDCs. A live excel spreadsheet has been filed with this Final Argument. LV charges and transmission charges are included. We have also included either distributors that are close to the density threshold, because OPDC is in that batch, and this produces a fairer comparison.

Comparative Annual Delivery Bills 2018				
LDCs that Meet Hydro One Urban Metrics	***Density***	***Residential***	***GS<50***	***GS>50***
volume	***Cust/km***	***700 kwh.***	***2500 kwh.***	***200 kW***
Brantford Power Inc.	78.24	$407.04	$998.40	$19,996.80
E.L.K. Energy Inc.	76.61	$344.76	$718.80	$18,212.16
Essex Powerlines Corporation	65.67	$371.16	$948.72	$14,359.56
Festival Hydro Inc.	81.87	$452.52	$1,228.80	$21,082.44
Hydro Hawkesbury Inc.	79.24	$284.28	$636.48	$11,532.36
Kingston Hydro Corporation	82.81	$419.88	$1,013.76	$21,651.00
Peterborough Distribution Incorporated	64.82	$373.56	$1,004.16	$20,028.12
West Coast Huron Energy Inc.	63.43	$495.24	$1,078.32	$16,581.48
Average		**$393.56**	**$953.43**	**$17,930.49**
Hydro One Urban Classes	60.00	**$557.52**	**$1,553.04**	**$35,835.60**
Percentage		141.66%	162.89%	199.86%
LDCs that are 50-60 Density per Line Km.				
ERTH Power Corporation	54.65	$513.24	$1,149.36	$22,029.12
Hydro Ottawa Limited	58.14	$442.56	$1,302.48	$24,227.76
London Hydro Inc.	52.42	$417.72	$1,080.84	$21,973.80
Orangeville Hydro Limited	56.68	$421.20	$1,053.84	$19,141.08
Orillia Power Distribution Corporation	57.99	$442.32	$1,325.64	$22,852.80
Oshawa PUC Networks Inc.	59.64	$393.60	$1,072.80	$25,362.96
Renfrew Hydro Inc.	53.23	$412.32	$1,136.04	$17,719.44
Rideau St. Lawrence Distribution Inc.	55.22	$408.24	$1,013.16	$19,036.20
Average		**$431.40**	**$1,141.77**	**$21,542.90**
Hydro One Urban Classes	60.00	**$557.52**	**$1,553.04**	**$35,835.60**
Percentage		129.24%	136.02%	166.35%
Overall Average		**$412.48**	**$1,047.60**	**$19,736.69**
Hydro One Urban Classes	60.00	**$557.52**	**$1,553.04**	**$35,835.60**
Percentage		135.16%	148.25%	181.57%

2.3.56 Once the rural component is removed, what this demonstrates is that it costs Hydro One an average of about 68% more to serve customers compared to those LDCs that do qualify for urban treatment, and even if you expand the sample to include those that are close to qualifying, it costs Hydro One an average of 55% more[43].

2.3.57 Worse than that, none of the sixteen distributors in the sample charge any of their customers as much as Hydro One. That is, it is not just that each distributor has lower overall costs than Hydro One, but each customer of those distributors is responsible for less costs than comparable customers of Hydro One. Hydro One "loses" this comparison on every single metric you could imagine.

[43] SEC notes that, according to Hydro One, updating the costs of assets over time may result in the proposed rates for PDI and OPDC converging on the urban rates. See, e.g. Tr.1:139.

2.3.58 This should actually come as no surprise. The Board does annual benchmarking of distributors' costs, using an econometric model that adjusts for a number of different business conditions, including density.

2.3.59 The most recent results are for 2018[44]. They show that Hydro One was 16% above expected costs. Six distributors were worse, and fifty-six distributors were better. By way of comparison, PDI was 5.8% above expected costs, and OPDC was 5.7% below expected costs. Even in a study like this that is adjusted for the impact of density[45], Hydro One is still a higher cost LDC than most others, including PDI and OPDC.

2.3.60 Despite the overall value of the Board's model, it is true that right now the Board has in EB-2017-0049 more specific benchmarking information for Hydro One's distribution business that extends out to 2022. In the evidence in that proceeding, Hydro One's expert PSE had Hydro One at 22.7% above expected costs in 2022[46]. Although there were differences in methodological choices, OEB Staff's expert PEG had Hydro One at 23.3% above benchmark in 2022[47]. While the Board's decision will impact the forecast benchmarking levels in 2022, the pattern is still very clear.

2.3.61 Thus, whether the Board relies on the Board's Benchmarking model, or the more specific studies done for EB-2017-0049, it is abundantly clear that Hydro One is a higher cost utility than pretty well anyone else, and certainly higher cost than PDI or OPDC, even after adjusting for its rural business conditions.

2.3.62 The evidence is therefore overwhelming that Hydro One spends more to serve a customer compared to any similar customer of another distributor, whether you do the comparison:

(a) On an overall basis, using distribution revenue per customer;

(b) Restricted only to urban customer classes of Hydro One and other similar distributor classes; or

(c) Using any of three current econometric models that compare Hydro One's costs to a benchmarking standard that adjusts for business conditions.

2.3.63 Of course, what this means is that Hydro One is faced with the challenge of showing that, in the case of PDI and OPDC customers, <u>things will be different</u>, i.e. it will NOT

[44] All figures from 2018 PEG Benchmarking Update.
[45] The OEB Benchmarking model increases costs by a factor of 0.29% for each additional 1% of line km. of a distributor: 2018 PEG Benchmarking Update, p. 8.
[46] EB-2017-0049, Tr.2, p.88; Exhibit A, Tab 3, Schedule 2, Attach 2, p.6; K2.2, p.7.
[47] EB-2017-0049, Exhibit M1, p.31

have a higher cost to serve those customers than a reasonable objective standard (such as status quo). They have provided no empirical evidence that would allow the Board to draw that conclusion. They have only their unsupported forecasts of future costs, forecasts that are inconsistent with all hard evidence, and inconsistent with logic.

2.3.64 ***Hydro One's Own Study Confirms its Higher Cost.*** During the hearing, Hydro One sought to cast doubt on whether its own cost allocation to urban classes properly reflects the costs to serve urban customers[48].

2.3.65 Tactically, you can understand why they would do that. They are acquiring urban customers (or close to it). They have rates for urban customers. Those rates are higher than any status quo you could possibly calculate[49]. If their cost allocation to urban classes is right, the PDI and OPDC customers will clearly be harmed, just like their first 89 acquisitions (and Norfolk, Haldimand and Woodstock, presumably). Hydro One might as well just go home.

2.3.66 They have two problems with challenging their own cost allocation.

2.3.67 First, if their cost allocation to urban customers is wrong, why didn't they fix it in EB-2017-0049? They just went through a five year distribution case this year, in which cost allocation and rate design were reviewed in detail, including a proposal to create new classes for acquired customers (because urban rates would be too high). If they were allocating too much to urban customers, they had a clear opportunity to fix that, and that was, indeed, the right time to do so[50].

2.3.68 Second, and more important, the urban classes are based on a specific study of how much it costs Hydro One to serve urban customers. It is a study that was designed and supervised by Hydro One, and was introduced into evidence with support by Hydro One[51]. In fact, Hydro One thought it was sufficiently strong that they believed they could actually narrow the revenue to cost ratio bands for the high density classes, because of the improvement in cost allocation[52]:

> *"Hydro One believes that implementation of the Density Study findings represents an improvement to the allocation of costs to its customer classes. Such an improvement to the allocation of costs would merit moving beyond the Board-approved limit for the R/C ratio of its density based classes to get closer*

[48] Tr.1:104,139; Tr.2:13-14; etc.
[49] And, as noted earlier, higher than all other similar urban density distributors in the province. For PDI, for example, putting those customers in the urban density classes would allocate to them $36.6 million of costs in 2030, and for OPDC it would be $14.5 million: J1.3.
[50] As they themselves readily admit: see Tr.T1:91; Tr.1:160-1.
[51] EB-2013-0416, Ex. D/1/1, Attach. 1. Report dated November 11, 2011 by London Economics International LLC and PowerNex Associates Inc. entitled "*Customer Density and Distribution Service Costs*".
[52] EB-2013-0416, Ex. D/1/1, p. 8.

> *to a R/C value of 1.0. However, as noted by a number of participants at the June 5 stakeholder session, adopting a staged approach to the implementation of the Density Study findings will help mitigate the rate impact on customers. As such, Hydro One proposes moving to the Board-approved limits for the R/C ratios (Option 1) as part of its 2013 IRM application." [emphasis added]*

2.3.69 A key conclusion of the Density Study was that the previous density factors used by Hydro One did not match with an analysis based on direct allocation of costs to higher density areas. The direct allocation of costs showed a greater ratio of cost differential between higher density and lower density areas. This is seen in the following from the study[53]:

> *"Hence, the results of direct cost assignment analysis suggest that the current density weighting factors likely understate the difference between the costs to serve low- and high-density customers."*

2.3.70 Hydro One then responded by proposing to change the cost allocation ratios to reflect the results of the Density Study[54]:

> *"Hydro One proposes to revise the allocation of costs to its density-based rate classes by adjusting the ratio between the cost per customer allocated by the 2010 CA Model to more closely align with the Density Study results."*

2.3.71 Those are, in fact, the ratios used in the cost allocation models that have been presented to this Board in the current proceedings. They were the result of a detailed cost study that looked at how much Hydro One spends to serve customers in the three density levels, applying econometric principles to the cost analysis and then calibrating the results to a direct allocation test for the sample areas. The result was presented by Hydro One as a good reflection of its actual costs to serve those high density areas, and was approved by the Board.

2.3.72 Now the results of that cost study are inconvenient for Hydro One, because they would indicate that Hydro One's costs to serve PDI and OPDC customers are, based on a detailed cost study of similar Hydro One customers, higher than even the bloated status quo numbers presented in this proceeding. In response, Hydro One now says that there are problems with the allocation of costs using the Density Study[55]. This is inconsistent with what they said in EB-2013-0416, and with their presentation of cost allocation in EB-2017-0049.

2.3.73 What should the Board do about this? Hydro One has empirical evidence of its costs

[53] LEI/PowerNex Density Study, Ibid. p. vi.
[54] EB-2013-0416, Ex. D/1/1, p. 4.
[55] Tr.1:139. See also Tr.1:166, and several other places.

to serve customers similar to PDI and OPDC. Those costs are high, so Hydro One wants to recant that evidence.

2.3.74 In SEC's submission, if Hydro One wants to acquire urban utilities, and their barrier is a cost study showing that their costs to serve urban customers are high, they should get their cost allocation in order first, before they come before the Board claiming lower costs[56]. SEC encourages them to do so, if they really believe they can serve urban customers at lower costs than they are currently saying are applicable to urban customers.

2.3.75 Hydro One admits that the costs to serve customers in higher density Hydro One towns like Owen Sound and Perth, both acquired utilities[57], or Kingston and Timmins, both long time legacy areas, and all of which were sampled in the Density Study[58], are likely similar to their costs to serve PDI or OPDC[59]. Of course that is true.

2.3.76 The important thing, however, is that there is no actual evidence before the Board that Hydro One's costs to serve PDI and OPDC will actually be any different from the other Hydro One urban areas. There is evidence before the Board that Hydro One has studied the cost to serve urban areas in a rigorous manner. There is a claim by Hydro One that they will be able to serve PDI and OPDC customers at a lower level. There is no evidence of that. Just a claim.

2.3.77 ***No Empirical Evidence from Hydro One that it has Ever Saved Any Costs Through Acquisitions.*** Perhaps the most telling piece of evidence that shows there will be no cost savings as a result of these transactions is a piece of evidence notable for its absence: analysis of the savings from past acquisitions.

2.3.78 Hydro One has acquired 93 other distributors: 89 in 1999/2000, one in the intervening period (Terrace Bay), and then Norfolk, Haldimand and Woodstock in recent years. If there have been savings associated with those acquisitions, it would have been relatively straightforward to do an empirical analysis to demonstrate those savings. SEC frankly assumed that Hydro One would have done so, particularly given that Hydro One's high costs had become an issue in its current acquisitions. If you are really saving money by acquiring and consolidating smaller utilities, that is something you would want to know (for management purposes), and prove (for regulatory

[56] If this actually happened, it would be a huge win for schools. If Hydro One is correct that the costs allocated to urban classes are currently too high, then "fixing" that allocation would likely reduce the bills of about 600 schools by an average of more than $10,000 each, i.e. $6 million per year, not to mention the thousands of small and medium businesses that would see significant savings. SEC does not believe that Hydro One is correct, however. As we have noted above, there are perfectly understandable reasons why Hydro One continues to be a high cost utility. You can't fix that with cost allocation.
[57] K1.3, p. 23.
[58] LEI/PowerNex Density Study, Ibid. p. 73; see also K1.3, p. 62, where the same page is excerpted.
[59] Tr.1:105, 136.

purposes).

2.3.79 When asked about whether they had done such a study, Hydro One not only said no[60], but seemed perplexed at why they would even want to do so[61].

2.3.80 It's not like it would be impossible. Hydro One has already demonstrated with the Density Study that they can study the costs to serve specific areas. In the first batch of 89 acquisitions, there were 11 that ended up in the UR class[62], so they would be the obvious target for a study of cost savings.

2.3.81 Of course, we know the reason why Hydro One didn't do a study of cost savings: they would necessarily have found that there were no cost savings. In fact, they would have found that costs went up in those areas.

2.3.82 There is a reason why that conclusion is inescapable:

(a) Hydro One increased the rates of those eleven acquired utilities by a weighted average 150% or more over 18 years[63], an average CAGR of more than 6% per year, and now is billing those customers at rates that are not only higher than any other comparable LDC, but are higher than the average of those peers by 55%[64].

(b) Those rates are based on a rigorous cost allocation study that determined the costs to serve high density areas, including several of those very same acquired areas.

Thus, any study of cost savings after those acquisitions would show that costs went up, not down. Hydro One knows the costs, because it did a study already, Those costs are higher than anyone else with a similar service territory. Therefore, there could only have been cost savings if, without those acquisitions, all eleven of those acquired distributors would otherwise have had costs today not only higher than Hydro One, but higher than every other similar distributor in the province. That is not credible on its face, and it is particularly not credible given that those distributors all had much lower costs and rates than Hydro One when they were acquired.

2.3.83 The Board also has direct evidence that Hydro One has not experienced cost savings from its many acquisitions. That evidence comes from the fact that Hydro One's Distribution Costs per customer have increased from 2005 to 2018 by 45.77%, almost

[60] Tr.1:77.
[61] Tr.T1:66-8; Tr.1:76,78.
[62] K1.3, p. 23.
[63] K1.3, p. 19-23. These tables are attached as Schedule 1 of this Final Argument.
[64] See table in para. 2.3.55 of this Final Argument.

double the average of the rest of the industry, 23.44%.

2.3.84 Based on the Yearbook data[65], Hydro One had Dx Revenue per customer in 2005 of $728.69, which was 49.6% above the rest of the industry, which had a weighted average Dx Revenue per customer of $487.06. When you fast forward to 2018, the last year for which there is data available, Hydro One had Dx Revenue per customer of $1,062.20, and was 76.7% above the rest of the industry at $601.24. Hydro One's costs relative to the rest of the industry appear to have become significantly worse over that period.

2.3.85 During that period, Hydro One acquired about 144,000 customers in its first batch of acquisitions (excluding Brampton)[66], which by now is roughly 170,000. It also acquired Terrace Bay, with a small number of customers, and also Norfolk, Haldimand and Woodstock, with a total of 60,000 additional customers[67]. Thus, its customer numbers have already increased by more than 20% as a result of acquisitions[68].

2.3.86 If Hydro One were in fact delivering cost savings through past acquisitions, then there should be a measurable impact on overall Hydro One costs. Someone must be benefitting from those "cost savings", and as we can see from the rates charged to the acquired customers, it is not those who were acquired. Therefore, somehow those legacy customers must have lower rates because of these past acquisitions.

2.3.87 Yet the evidence shows that the legacy customers do not have lower rates because of acquisitions. In fact, on an overall basis Hydro One customers – legacy and acquired - have experienced greater rate increases than the rest of the industry. Rates have been set based on costs for all distributors multiple times over that intervening period, so it is necessarily true that Hydro One's costs have risen faster than those of the rest of the industry.

2.3.88 It is at least theoretically possible that Hydro One rates and costs would have increased even more from 2005 to 2018, but for the addition of more than 20% to its customer numbers. Instead of Hydro One's rates going up at 4.9% CAGR, as they did, Hydro One's rates might otherwise have gone up at a 6% CAGR, but its customers were

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[65] SEC was unable to find the comparable data for 2000 or 1999, to go back right to the time of the acquisitions. However, given that there was a rate freeze for much of the period from 2000 to 2005, and a phase-in of MARR, and the rates of the many acquireds were frozen for that period, the revenue per customer in 2005 for distributors is closer to 1999/2000 than would first appear.

[66] The *1997 Ontario Hydro Municipal Electric Utility Financial & Statistical Summary* shows 140,304 customers in 1997. We have escalated that by 1% per year. Some of the acquired areas have grown much more slowly than that, but a few, such as Stouffville and Thorold, have grown more quickly. The 1% assumption is probably reasonable, but nothing turns on it.

[67] EB-2017-0049, Ex. G1/3/1 Attach 2, p. 2, and G1/2/1, p. 8, in total 59,764 customers.

[68] From approx. 1,100,000 legacy customers to just over 1,300,000 with acquired customers, excluding OPDC and PDI of course.

saved by its cost savings from acquisitions. That would still, of course, be compared to the CAGR for the rest of the industry, 2.5%.

2.3.89 Although that explanation is theoretically possible, it is unlikely on its face, and in any case the Board has no evidence before it to suggest that is what happened. The evidence, instead, shows pretty clearly that Hydro One has had higher cost increases than the rest of the industry, and there have been no cost savings from acquisitions to offset that.

2.3.90 The Board is therefore left with unsupported claims by Hydro One that the PDI and OPDC acquisitions will generate cost savings, and an overwhelming preponderance of evidence that Hydro One has not in fact produced any cost savings from past acquisitions.

2.3.91 ***Conclusion***. The entire case of the Applicants rests on their claim that the acquisitions of PDI and OPDC will produce cost savings, just as the Board's policy supporting distributor consolidation intends.

2.3.92 It turns out that Hydro One is the exception that proves the rule.

2.3.93 SEC submits that Hydro One will not deliver any cost savings from these transactions, for at least the following reasons:

(a) The status quo vs. Hydro One forecasts that "support" the claim of cost savings are so badly flawed as to be useless to the Board.

(b) Economic theory would predict that Hydro One has diseconomies of scale, and Hydro One exhibits many of the indicia that diseconomies of scale are at work.

(c) Hydro One today has higher costs to serve customers similar to each of the classes of PDI and OPDC customers than any of the sixteen other LDCs that could be said to have comparable customers, without exception, and on average Hydro One's costs are 35% to 80% higher than those peers.

(d) Three recent econometric benchmarking studies have concluded that Hydro One is substantially above expected costs, and above almost all of its fellow distributors including PDI and OPDC, even after adjusting for density using empirical data.

(e) All of the customers Hydro One has acquired so far now have costs higher than their peers in other LDCs, and for almost all of them[69] they have been harmed by very substantial rate increases.

[69] Norfolk, Haldimand and Woodstock got a stay of execution in EB-2017-0049.

(f) Hydro One's current urban rates, which are based on a thorough cost study based on density (and included some previous acquireds), are higher than PDI and OPDC say their costs will be on rebasing, even with their inflated forecasts.

(g) Despite having 93 past acquisitions, Hydro One has made no effort to study whether it has delivered any cost savings through those acquisitions.

(h) Despite adding more than 20% to its customer numbers, Hydro One has not seen any reduction in costs, and in fact its costs have risen since 2005 at almost twice the rate of the rest of the industry[70].

2.4 ***Allocation of the "Savings"***

2.4.1 Even if there were some savings[71], the approach proposed by Hydro One to allocate those savings between legacy and acquired customers is not based on principles. Hydro One appears to think that there is a discretion to allocate savings "between the goalposts"[72]. Aside from the fact that the "goalposts" themselves seem to be incorrect in a number of ways[73], the concept of dividing up the spoils in this way is contrary to the Board's cost allocation principles.

2.4.2 The concept of cost causality[74] is not discretionary in nature. At its root, cost causality starts from the assumption that it is possible to identify the costs caused by a customer or class of customers, using empirical sources with as little non-objective analysis as possible. Subject to certain other considerations (like mitigation and equity), the Board's approach has always been to recover from a class of customers in rates the costs fairly calculated to be caused by those customers. While there is no doubt that some parts of cost allocation are as much art as science, and there is no doubt that there is some uncertainty surrounding the exact connections between customers and costs (hence the revenue to cost ratio bands), cost allocation is still always an objective process, not an arbitrary one.

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[70] It is impossible to imagine how you could have more evidence of lack of savings than the Board has before it in this proceeding.
[71] Although based on the evidence this is not going to happen in fact (see above discussion). According to Hydro One, the key issue in this proceeding is how to share those savings: AIC, p. 3, 12. Of course, first you need to have savings to share.
[72] Hydro One argues that the "goalposts" proposal is central to whether these applications can be approved: Tr.1:25,58.
[73] And they have no plan for what to do if there is no actual room between the goalposts, because no cost savings actually emerge.
[74] Emphasized as the primary goal of cost allocation by the Board in every single cost allocation report or communication the Board has ever released.

2.4.3 What Hydro One is proposing in these proceedings is a completely new approach to cost allocation, in which the primary principle is not cost causality. The primary principle is, instead, dividing up the cost savings from consolidation between legacy and acquired customers. This is cost allocation designed to achieve a specific result, rather than designed to discover an objective underlying connection between costs and customers.

2.4.4 Of course, Hydro One has proposed that they will start with a straightforward process in which they will do an objective cost allocation, and see if the result comes between the goalposts. They expect it will[75], and so they will leave it at that. If it doesn't, they will adjust the revenue to cost ratios to reduce or increase the rates for the acquireds to get within the goalposts.

2.4.5 However, Hydro One has discovered that, if they use a normal cost allocation process in step one (i.e. the one they already have, the urban classes), the costs to be borne by the acquired customers will be far too high (and outside the goalposts) to allow for any reasonable adjustment[76]. To avoid that problem, they propose direct allocation of as many assets as they can justify, in effect putting their thumb on the scale to ensure that the cost allocation gets between the goalposts in the first place.

2.4.6 It should be noted that Hydro One admits this is the same approach they proposed in EB-2017-0049, and was rejected by the Board in that proceeding. The following discussing illustrates this[77]:

> *"MR. SHEPHERD: Isn't that exactly the same methodology you put to the Board in 2017-0049, the allocation with adjusting factors and play with the revenue-to-cost ratios?*
> *MR. ANDRE: Yeah, we didn't -- as I said earlier, I don't think we did as good a job as we could have in terms of explaining those goalposts. That was our argument, that those costs fell in between.*
> *But I don't know that we did a good enough job. Obviously, we didn't do a good enough job explaining it to the Board so they understood that principle and understood the inherent fairness in that principle.*
> *MR. SHEPHERD: So aside from refinements to the adjustment factors -- because I understand you have improved the adjustment factors, right, in that process?*
> *MR. ANDRE: Yes.*
> *MR. SHEPHERD: But aside from that, you are basically saying to the Board we want you to approve what you refused to approve in 0049, but this time we're giving you better information so that you will understand it*

[75] Tr.T1:194-5; Tr.2:72-5.
[76] See Tr.2:43.
[77] Tr.T1:195-6.

> *better.*
> *MR. ANDRE: I think we've done a much better job of explaining our proposals around the goalposts in the evidence that is part of this application.*
> *MR. SHEPHERD: Thank you."*

2.4.7 Thus, although there are differences in the current proposal, and they are not immaterial, the concept and structure are identical to a proposal rejected by the Board in a case this year, with significant criticism that it was not an appropriate approach to cost allocation[78].

2.4.8 The basic structure of the cost allocation proposal is downward adjustments to the costs allocated to the PDI and OPDC customers. This happened in a series of steps.

2.4.9 So, first Hydro One said they would directly allocate poles and wires and things in that general category[79]. They ran into a problem with that, because the rates for acquired customers were still too high relative to status quo. Then, they added distribution stations and related assets, which they think brings the costs allocated to the acquired customers down below status quo[80]. Just to be on the safe side, they have now changed the allocation of upstream assets to further reduce the costs allocated to the acquired customers[81].

2.4.10 Hydro One does not plan to take these steps for any other customers; just PDI and OPDC.

2.4.11 All of this is justified by two arguments.

2.4.12 First, direct allocation is a good (maybe even "better") method of allocating costs, they say. As we discuss below, except in rare cases that is not true, and the Board's policies have opposed most direct allocation for many years.

2.4.13 Second, direct allocation brings the costs allocated to the acquired customers down to between the goalposts, which is the purpose of the exercise[82]. Since there are substantial cost savings from the merger, getting between the goalposts results in the legacy and acquired customers both having lower rates than status quo, and therefore sharing the benefits of the merger. As we discuss below, this requires Hydro One to

[78] Details are discussed at length in the SEC Motion in these proceedings, and will not be repeated here.
[79] These steps are described at Tr.1:82.
[80] These first two adjustments radically reduce the allocation of "most costs" to the PDI and OPDC customers: Tr.1:26. For OPDC customers, compared to urban classes they reduce costs allocated by $5.0 million, i.e. 34.5% of all costs. For PDI customers, they reduce costs allocated by $13.6 million, or 37.2% of all costs: J1.3.
[81] Tr.1:24. The impact of this for PDI customers, for example, is a further $1 million reduction in annual allocated revenue requirement, or about 4%: J1.2.
[82] See Tr.1:101.

treat like customers unequally, preferring some groups of customers over others in order to achieve approval of acquisitions[83].

2.4.14 SEC believes it is important for the Board to acknowledge that the idea of sharing merger "savings" through specialized cost allocation rules is a fundamental change in the approach the Board has taken to cost allocation. If Hydro One can adopt this new, essentially purpose-driven approach for acquisitions, why can't other LDCs use a similar concept to reduce rates for a business that might otherwise leave town, or for streetlighting because their shareholder owns the street lights, or for schools and hospitals and universities and other public enterprises because they provide an important public service?

2.4.15 Once the Board accepts that cost allocation designed to achieve a particular rate result is OK, there is a broad range of applications of that concept.

2.4.16 The Board has always rejected that. Cost allocation is not purpose-driven; it is objective. Hydro One wants this Board to change that.

2.5 ***Fairness in Cost Allocation***

2.5.1 In addition to challenging the objective nature of cost allocation, and to rejecting the idea of cost causality, Hydro One also wants to turn its back on the principle of fairness, a cornerstone of cost allocation[84].

2.5.2 ***The Fairness Principle.*** The principle of fairness (also referred to as "equity") is a widely accepted and critical aspect of ratemaking, described most authoritatively by Bonbright in his Principle #6[85]:

> *"Fairness of the specific rates in the apportionment of total cost of service among the different ratepayers, so as to avoid arbitrariness and capriciousness, and to attain equity in three dimensions: (1) horizontal (i.e., equals treated equally); (2) vertical (i.e., unequals treated unequally); and (3) anonymous (i.e., no ratepayer's demands can be diverted away uneconomically from an incumbent by* a *potential entrant)." [emphasis added]*

2.5.3 Fairness flows directly from the overriding principle of cost causality. Two customers are similar if they cause similar costs. If they are similar, they should pay the same amounts for their electricity distribution service, because they cause similar costs.

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[83] It also requires them to explicitly reject the concept of postage stamp rates in order to achieve this result, something they admit: Tr.T1:125.
[84] SEC notes that the much-touted but largely useless Navigant study doesn't even consider this principle.
[85] *The Principles of Public Utility Rates,* James C. Bonbright, Albert L. Danielsen, David R. Kamerschen (Second Edition, 1988) Public Utilities Reports, page 384.

Conversely, if two customers are different, because they cause different costs, then they should pay appropriately different amounts based on the difference in the costs they cause. Anything else is unfair and inequitable.

2.5.4 The Board has been consistent for at least twenty years in stating that the principle of cost causality is the primary driving force behind its cost allocation policies.

2.5.5 There are other principles set out by Bonbright, and followed by the Board, including the principle of ensuring that the total costs allocated allow the utility to recover all of their costs, and the principle of simplicity, and the principle of administrative efficiency. These are all important, but rates are not just and reasonable unless there is fairness between customers and between customer classes.

2.5.6 The Board probably got tired of SEC bringing up Trenton, and Brockville, and Ancaster, and similar places during the oral hearing. It could not be helped. Hydro One serves more schools in its high density service territories than in all the rest of its service area because, not surprisingly, schools are often concentrated in the largest population centres. The school boards running those schools already have to contend with the large disparity between Hydro One rates and those of the other LDCs that serve those school boards. Now Hydro One is proposing that it will give PDI and OPDC customers (including schools) a special deal with even lower rates than Hydro One charges in its current urban areas.

2.5.7 Hydro One admits that it probably costs a similar amount to serve a school in these other areas as it will to serve a school in PDI or OPDC[86]. It is not a stretch. Of course that is true.

2.5.8 Notwithstanding that reality, Hydro One seeks to justify the big difference between what it proposes to charge PDI and OPDC, and what it charges similar customers in other urban areas[87], on the basis that it has better information on the costs to serve PDI and OPDC customers[88].

2.5.9 This is not a legitimate reason to jettison the fairness principle, for at least four reasons:

(a) The urban rates were based on a detailed Density Study that reviewed actual costs to serve urban areas relative to non-urban areas, and tests the results using a form of direct allocation.

(b) The urban rates were recently affirmed in the EB-2017-0049 decision. By

[86] Tr.1:105,136.
[87] See J1.3, Peterborough SEC IR #43, and Orillia OEB Staff IR #11.
[88] Tr.T1:85-6; Tr.1:137.

definition, they are currently just and reasonable.

(c) Hydro One has taken no steps to identify why its new cost allocation methodology says that it costs them less to serve these PDI and OPDC urban customers than other urban customers.

(d) If direct allocation is really the solution, it should be applied to all urban areas. It is not impossible to estimate the actual assets serving the other urban areas[89], and get a similar rate for each of them.

2.5.10 ***Transactional vs. Steady State Fairness.*** Hydro One says that the other urban customers shouldn't complain if their rates are higher than those proposed for similar PDI and OPDC customers, because they will benefit from cost savings due to the transactions[90]. Aside from the fact that SEC believes no cost savings will actually be generated, Hydro One's argument in this respect misses the point. It confuses whether a particular transaction is fair, with whether a particular cost allocation is fair.

2.5.11 Cost allocation is a division of the rate responsibility for the cost of distribution service between customers based on cost causality. Fairness is a principle that controls how that division of responsibility is done. It has nothing to do with any transaction, or any change of circumstances. It reflects the fair division of costs at a point in time. Past and future are both irrelevant.

2.5.12 What Hydro One is saying to existing customers is "We're giving you a rate reduction. Your rates will still be higher than other, similar customers, but lower than today. You should accept that ongoing unfairness because of the rate reduction today."[91]

2.5.13 Any customer faced with that reality would legitimately ask: "Why don't you just fix the unfairness? Either their rates are too low, or ours are too high. They can't both be correct, because we are similar customers causing similar costs. Give us similar rates."

2.5.14 Hydro One can't do that. To reduce the rates of the urban customers to match the PDI and OPDC customers, it would have to increase the rates of non-urban customers, which it doesn't want to do[92], but if correct should have done in EB-2017-0049. To increase the rates of the PDI and OPDC customers to match the urban customers, it would have to admit that it can't serve those customers at a cost lower than status quo, and therefore it can't pass the no harm test.

[89] Which is essentially what the Density Study attempted to do. See also Tr.1:144.
[90] Tr.1:160.
[91] Tr.1:135.
[92] Tr.T1:92-93.

2.5.15 Hydro One is caught between a rock and a hard place, and its only solution is to ask legacy customers to live with obvious unfairness indefinitely into the future.

2.5.16 That is neither a principled nor an acceptable approach.

2.5.17 ***Direct Allocation.*** The root of this fairness problem lies in Hydro One's argument that direct allocation is a preferred way of allocating costs to customer classes. Mr. Andre describes it this way[93]:

> *"MR. ANDRE: ...[A] key element of cost causality is to the extent there are classes for which you know, or groups of customers for which you know the direct cost to serve, the actual costs to serve, direct allocation is to the extent -- to the extent that was available for everybody, that would be the ultimate in costs, in cost causality, is if you knew the actual number of assets being used to serve a particular group of customers.*
> *Usually you don't, so then you use cost causality, like what drives -- is it demand? Is it the class demand? Is it the number of customers that drives that cost? So you have to start relying on other principles.*
> *But to the extent you can directly allocate costs, that is a good thing."*

2.5.18 That argument is not correct, for at least three reasons.

2.5.19 First, the Board has generally been opposed to direct allocation in most circumstances for many years. In the consultations in 2005, for example, presentations from OEB Staff members Pascale Duguay[94] and John Vrantsidis[95] warned that distributors should exercise a high degree of caution in considering direct allocation, as it is seldom appropriate. It should only be used for a single customer or class, and only in very limited circumstances.

2.5.20 In the Staff Report coming out of that consultation[96], OEB Staff proposed to allow direct allocation, but sounded a word of caution:

> *"Direct allocations may not prove common in practice, as more than one customer classification may make some use of the facilities in question. Direct allocation would also not be suitable where the customer takes advantage of other parts of the system for additional reliability[97]. To prepare and review proposed direct allocations will take time and effort and therefore is not encouraged for items that a distributor considers insignificant."*

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[93] Tr.1:63.
[94] OEB Cost Allocation Principles and Methodologies, at. p. 7.
[95] Direct Allocation of Demand-Related Costs, at p. 7.
[96] Cost Allocation Review: Staff Report on Principles and Methodologies, June 28, 2006, at p. 27.
[97] Which, SEC notes, is a restriction that Hydro One plans to ignore: Tr.T1:108.

2.5.21 Direct allocation is still allowed today, but with the same high level of caution. At no time has the Board considered direct allocation for assets that are distinguished by the geographic location of a class of customers being served[98].

2.5.22 Second, direct allocation has always been rarely used. Going back as far as 2000, the MEA Guidelines list appropriate direct allocation capital cost categories, and they are exclusively street and sentinel lighting, and water heater rentals[99].

2.5.23 Today, most LDCs use no direct allocation except for assets dedicated to a single customer, and even Hydro One, in its urban class, uses a generalized adjustment factor rather than direct allocation[100]. To the best of our knowledge, no distributors use direct allocation to allocate fixed assets to one or more rate class, except streetlighting or sentinel lighting[101].

2.5.24 Third, and likely most important, direct allocation falls into the trap of what is sometimes called "the fallacy of the residuals"[102].

2.5.25 In business negotiations, any seasoned negotiator will seek to allocate a list of benefits to the other side, and take all of the residual benefits for themselves. Conversely, they will want to be responsible for a list of costs, and allocate all of the residual costs to the other side.

2.5.26 This is mostly common sense. When you have a group of things (costs, benefits, or anything else) that is undetermined, you can estimate the value of the group, but it will be uncertain. If you then list some of the things, the value of the list is certain (or reasonably so), but the value of the remainder of the group is even less certain than the group was initially.

2.5.27 But the real reason why this negotiating strategy is so commonly used is that any list that is supposed to capture all things in a certain category will inevitably leave some things out, either because they are forgotten, because they are unlikely, or because they are insignificant. Each of those things in the category that are left out are by definition allocated to the remainder, which means that the tendency is to decrease the size or value of the list, and increase the size or value of the remainder[103]. Further, it is

[98] Hydro One admits that no-one has location specific rates, so direct allocation has never before been used for this purpose: Tr.1:45.
[99] MEA Cost Allocation Guideliness, October, 2000, Appendix 2.
[100] Tr.1:140.
[101] Including Hydro One. See Tr.1:142.
[102] It has other names, and SEC is not aware if this is a formal term, or just one some senior lawyer made up years ago and told us. It is, however, a widely accepted negotiating technique.
[103] Some negotiators will formally discount the value of a "good" list, and increase the value of a "bad" list, when they are forced to accept that side of a division of benefits or costs.

asymmetrical. The same effect does not work in the other direction.

2.5.28 SEC submits that the Board's longstanding caution in using direct allocation is a good one, and the fact that it has been used in such limited cases is evidence that utilities understand the need for caution as well. Both of these effects are consistent with the theory behind division of costs and benefits exhibited in negotiations.

2.5.29 What is perhaps even more evident, however, is that what Hydro One is asking the Board to approve in this case is the use of a cost allocation approach – direct allocation – that has never been approved by the Board for any similar use, would result in unfairness as between groups of customers, and is entirely motivated by Hydro One's desire to produce a particular cost allocation result, i.e. lower costs allocated to acquired customers.

2.5.30 Direct allocation is not a "better" way to allocate costs. At least in this context, it is a worse way to allocate costs.

2.5.31 ***Proliferation of Rate Classes.*** Finally, on this point, we note that one of the other principles that Bonbright presented, and which often reduces the level of fairness to some limited extent, is administrative efficiency. Customers are placed in classes because otherwise fairness would require that each customer have their own separate class, allocated just the costs of that customer[104]. This is not practical.

2.5.32 What Hydro One is proposing in these proceedings is that not only will they deliberately introduce unfair cost allocation, but they will do so despite the fact that it adds additional rate classes (six in this proceeding, six to nine for Norfolk, Haldimand, and Woodstock, and three more with each additional acquisition), reducing administrative efficiency.

2.5.33 In fact, if you go through all of the Bonbright principles, the unfairness that Hydro One is proposing in these proceedings doesn't support ANY of the other principles. The only argument on which they sought to hang their hat was that direct allocation is a better method of allocating costs. That argument fails, so there is no remaining justification for Hydro One's cost allocation proposal.

2.6 ***What Will It Actually Cost Hydro One to Serve PDI and OPDC Customers?***

2.6.1 Much of these proceedings has centred around the debate over what it will cost Hydro One to serve the PDI and OPDC customers.

2.6.2 On the one hand, Hydro One has proposed a method of calculating that cost, using direct allocation and other techniques, that shows Hydro One's total costs to serve

[104] Hydro One agrees that too many rate classes is bad: Tr.1:62-3.

those customers to be lower than status quo, and lower than many other LDCs with similar customers.

2.6.3 On the other hand, Hydro One has existing urban classes, supported by a detailed Density Study, that show that Hydro One's cost to serve comparable customers is greater than status quo today, and likely into the foreseeable future.

2.6.4 SEC submits that, in this case, the key is to be clear on the question that needs to be answered. The question is, will Hydro One be able to serve PDI and OPDC customers at a lower (or equal) cost than the current management would be able to serve them?

2.6.5 In our submission, the answer to this question is much simpler than any of us has made it. Hydro One has <u>never</u> provided distribution service to any customer at a cost lower than <u>any</u> other Ontario distributor (except Algoma). That is true today, it has been true for at least the last twenty years, and likely it was true long before that as well. It is true for all of Hydro One's legacy customers, and for each and every one of Hydro One's acquired customers. It is true for all Hydro One rate classes.

2.6.6 The proposition Hydro One wants the Board to accept in this case is that, without any hard evidence of any significant change at Hydro One, <u>Hydro One will suddenly be able to do something it has never before been able to do</u>.

2.6.7 SEC submits that it is not possible for a reasonable person to conclude that Hydro One will, for the first time, be able to serve these newly acquired customers (or any other new customers, for that matter) at a lower cost than would be the case if they were not acquired by Hydro One.

2.7 ***<u>SEC Recommendation</u>***

2.7.1 SEC submits that the Board should:

(a) Determine that Hydro One will not generate any cost savings by acquiring PDI and OPDC, for the reasons set forth in detail above;

(b) Reject the proposal by Hydro One to use goal-driven cost allocation, ignoring the principle of fairness in order to artificially reduce the costs allocated to the PDI and OPDC customers, contrary to longstanding Board cost allocation principles and practices; and

(c) Make a clear finding that the acquisition by Hydro One of PDI and OPDC is likely to harm the customers of those distributors through higher costs and rates, and thus is contrary to the mandate of the Board to *"protect the interests of consumers with respect to prices"*.

2.7.2 SEC also submits the Board should make very clear to Hydro One that, until they get their costs under control, so that they can demonstrate they can provide service to existing customers at costs comparable to other distributors, they should stop trying to acquire other distributors:

(a) If Mr. Andre is right, and their current cost allocation model does not allocate costs fairly in some cases, then they should go away and fix that problem. When they have a new, Board-approved cost allocation methodology that applies to all their customers, then they can come back with further acquisition proposals.

(b) If, as is more likely, they simply have a higher cost structure (for example due to diseconomies of scale), they should focus on solving that problem. If and when they have won that battle, and have costs comparable to other distributors, then they can start acquiring again.

What they should not be doing, in SEC's submission, is continuing to come back to the Board with new proposals to adjust how they allocate costs, or make forecasts, in order to create an appearance that they are a not a high cost distributor. They are. They should accept it, and deal with it.

3 THE NO HARM TEST – CUSTOMER SERVICE

3.1 *Background*

3.1.1 SEC compiled the scorecard results from the 2018 scorecards for Hydro One, PDI and OPDC[105]. An excerpt from the document put to the witnesses at the Technical Conference is below:

Category	Performance Year	Hydro One	PDI	OPDC
CUSTOMER FOCUS	New Residential/Small Business Services Connected on Time (Target: 90%)	99.32%	99.19%	100%
	Scheduled Appointments Met on Time (Target: 90%)	99.95%	99.91%	99.78%
	Telephone Calls Answered on Time (Target: 65%)	78.05%	87.47%	96.95%
	Billing Accuracy (Target: 98%)	99	100	100
	First Contact Resolution	87%	0	99.9
	Customer Satisfaction Survey Results	86%	A	A
OPERATIONAL EFFECTIVENESS	Level of Public Awareness	80%	85%	84%
	Number of General Public Incidents	11	2	0
	Rate per 10, 100, 1000 km of line	0.09	0.35	0
	Average Number of Times Power to Customer is Interrupted	2.21	1.92	1.5
	Average Number of Hours Power to Customer is Interrupted	6.82	2.18	1.43

3.1.2 This section of our Final Argument will deal with the Customer Focus metrics. The next section will deal with the Operational Effectiveness Metrics.

3.2 *Board-Approved Metrics*

3.2.1 The Board has five key customer service metrics that all distributors report, and all three of these distributors are above the Board target in each of those metrics.

3.2.2 On the first two metrics, connecting services and meeting appointments, there is little difference between Hydro One, PDI and OPDC. They are all very good. On billing accuracy, despite Hydro One's past billing problems, it has picked up its performance, and now is only modestly behind the records of PDI and OPDC.

[105] KT2.2.

3.2.3 Answering phone calls, and first contact resolution, are a completely different story. Hydro One has significantly worse performance than either PDI or OPDC, on both metrics.

3.2.4 In an effort to find out what this would mean in actual practice, SEC asked about phone answering at the Technical Conference. Both Mr. Hipgrave on behalf of OPDC[106] and Mr. Stephenson on behalf of PDI[107] agreed that, in each case, the difference in phone answering performance would mean that about ten more of their customers EVERY BUSINESS DAY would not get their call answered by their utility within a reasonable time.

3.2.5 The exchange with Mr. Stephenson is indicative[108]:.

> *"MR. SHEPHERD: So turning to Peterborough, Hydro One has said that certain things will be better, that you will have certain improvements in customer service in Peterborough as well, right? And so the 25,000 calls a year is actually yours, right? You have about 25,000 calls a year?*
> *MR. JOHN STEPHENSON: That sounds about right as an approximation.*
> *MR. SHEPHERD: And so nine-and-a-half percent of them will now be longer than 30 seconds, which means that's another 2,000 calls, ten every business day, roughly; isn't that right? Your customers -- you're answering those calls right now basically right away, right?*
> *MR. JOHN STEPHENSON: I think our statistics point that out, yes."*

3.2.6 This problem may actually be worse than it first appears, however. Hydro One is proposing to add 51,000 more customers, about a 4% increase, but it does not currently plan to add any call centre staff[109]. The Board has no evidence before it that Hydro One has a plan to handle an additional 50,000 calls a year with no more personnel.

3.2.7 First contact resolution is a different sort of issue, because it may simply be structural.

3.2.8 There are many advantages and disadvantages to being a smaller distributor.

3.2.9 One of the advantages is that call centre staff are actually talking to their neighbours. That doesn't mean they actually know the person on the line, but they know the town, and they are closer to what the distribution system is doing at any given time. If there is a storm, they can see it out their window. If one of the repair crews is tied up on a

[106] Tr.T2:59.
[107] Tr.T2:60.
[108] Ibid.
[109] Tr.T2:58-62.

big job, they have been talking about that in the office all day. If there is a billing question, they can call Mary down the hall, who is on their curling team, to help out.

3.2.10 Conversely, Hydro One's call centre staff are dealing with a much larger service territory, and a problem could be very remote from their experience. They are also dealing with a bigger bureaucracy, in which getting problems resolved requires a more complicated calculus as to who should do it, and how they should be contacted.

3.2.11 In the case of first contact resolution, it may therefore simply be impossible for Hydro One to do as well as a smaller utility, and we are not intending to suggest that Hydro One is dropping the ball on this. It is just a reality that they have to deal with as a large utility. That doesn't change the fact that, on this metric, PDI and OPDC customers will likely be harmed.

3.2.12 SEC therefore submits that, without more, it is clear that PDI and OPDC will experience worse customer service under Hydro One than they currently enjoy.

3.3 ***Offsetting Benefits***

3.3.1 Hydro One argues that, while their performance on these metrics is not as good as PDI or OPDC, they offer other benefits to customers that provide them with offsetting benefits: longer call centre hours; online outage notices including emails; IVR, etc[110].

3.3.2 SEC is not convinced that these additional benefits sufficiently offset not being able to get a problem resolved on the first call, 13% of the time, or 10 people a day not getting an answer when they call their utility[111].

3.3.3 However, despite Mr. Whitehouse's view that these things are just too expensive[112], SEC fully anticipates that more and more distributors will have all of these functionalities in the near term. As distributor groups are more often combining resources to do things that are otherwise expensive (the CHEC Group, for example, or the shared control room recently announced in the Golden Horseshoe), SEC expects that more distributors will have to afford these things, and customers will expect them.

3.4 ***SEC Recommendation***

3.4.1 SEC therefore submits that the Board should determine that the PDI and OPDC customers would, if the transactions were approved, experience a decline in customer service overall relative to what would happen if the transactions were not approved.

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[110] Tr.T2:61.
[111] Hydro One says it just takes them longer. How many people want to wait more than 30 seconds for someone to just answer the phone?
[112] Tr.T2:61-2. Hydro One agrees: Tr.1:119.

4 THE NO HARM TEST - RELIABILITY

4.1 *Introduction*

4.1.1 Hydro One has notoriously poor reliability, but that may be largely because, as a mostly rural utility, it has long distances to travel. It's SAIDI is therefore a lot worse than its SAIFI, and that is to be expected.

4.1.2 Comparing the largely rural Hydro One to PDI and OPDC on reliability is therefore a challenge.

4.2 *Data Comparison*

4.2.1 Hydro One has provided what it says are better reliability comparisons that reduce the impact of its rural nature. For PDI, for example, it provided the following table[113]:

Table 4: Reliability Metrics*

	2014	2014	2015	2015	2016	2016	2017	2017
	Hydro One	PDI[14]	Hydro One	PDI	Hydro One	PDI	Hydro One	PDI
Duration (SAIDI)	5.35	0.90	5.78	3.59	2.09	2.01	3.72	2.22
Frequency (SAIFI)	2.01	0.83	1.49	2.81	0.89	2.34	1.18	2.53

4.2.2 This table compares the reliability of PDI to the reliability of Hydro One's stations in the vicinity of Peterborough.

4.2.3 A similar table was provided for OPDC, again using the stations in the area around Orillia[114]:

Table 4: Reliability Metrics*

	2013	2013	2014	2014	2015	2015	2016	2016	2017	2017	2018	2018
	Hydro One	Orillia Power[13]	Hydro One	Orillia Power	Hydro One	Orillia Power	Hydro One	Orillia Power	Hydro One	Orillia Power	Hydro One	Orillia Power
Duration (SAIDI)	3.06	1.13	0.76	2.15	4.08	1.06	2.77	0.52	5.73	3.63	2.07	1.43
Frequency (SAIFI)	1.37	1.03	0.39	1.28	1.33	2.44	0.84	1.10	1.59	0.92	0.81	1.50

[113] EB-2018-0242, Ex. A/2/1, p. 9 updated December 1, 2019.
[114] EB-2018-0270, Ex. A/2/1, p. 9 updated November 29, 2019. These tables properly exclude LOS.

4.2.4 SEC has concerns about these comparisons, because the selection of "stations in the vicinity", while something, doesn't have much in the way of rigour. We would be much more comfortable if Hydro One regularly kept separate records of its reliability statistics for its customers in urban areas. That would be much more useful in this context, but it does not appear to be available right now.

4.2.5 With the comparisons Hydro One has provided, Hydro One fares better than both OPDC and PDI on outage frequency. Hydro One's 1.06 average (over six years) compares to 1.38 for OPDC, 30% higher. Similarly, Hydro One's 1.39 average (over four years) compares to 2.13 for PDI, 50% higher.

4.2.6 On the other hand, Hydro One is much worse on outage duration. Hydro One's 3.08 average is 85% higher than OPDC's 1.65 average. Hydro One's 4.24 average is 95% higher than PDI's 2.18 average. It is not clear that, in this comparison, the reason for these disparities is rural service territories.

4.2.7 SEC submits that, looking at all of the data, it is probably reasonable to say that PDI and OPDC customers will be moderately worse off on the reliability front if the Board approves these transactions.

4.3 ***Capital Spending Plans***

4.3.1 Our bigger concern is that, in the pursuit of cost savings, Hydro One may underinvest in the infrastructure in the PDI and OPDC service territories. As we have noted elsewhere, even though Hydro One's PDI capital budget is similar to status quo[115], we know that Hydro one plans to replace/refurbish two-thirds the number of stations in the PDI service territory[116]. We believe that this can only result in a decline in reliability.

4.3.2 In the case of OPDC, the capital budget for Hydro One is also very similar to the status quo capital budget for OPDC[117]. If we are correct that Hydro One has higher unit costs than OPDC, we are concerned that the amount of work that will actually be done in the OPDC service territory will be less than would be the case under status quo. Again, the risk is a decline in reliability.

[115] EB-2018-0242, Ex. A/2/1, p. 2 updated.
[116] Tr.T1:167-8.
[117] EB-2018-0270, Ex. A/2/1, p. 2 updated. The OPDC budget is actually much higher, but almost all of the difference is in the operations centre, which Hydro One will also build but has not included in its costs related to the OPDC service territory.

4.4 ***SEC Recommendation***

4.4.1 SEC submits that the likely result of these transactions is a decline in reliability in the PDI and OPDC service territories. While the evidence does not indicate a substantial decline, it does appear that some decline should be expected.

4.4.2 If this were the only harm in the transaction, and there were offsetting benefits in cost, customer service, or otherwise, it could probably be resolved with commitments or conditions. In this case, there are no offsetting benefits in other areas. This is just another harm visited on the PDI and OPDC customers.

4.4.3 SEC therefore submits that the Board should determine the proposed transactions are likely to result in harm to PDI and OPDC customers with respect to reliability.

5 ISSUES RELATED TO APPROVALS

5.1 *Introduction*

5.1.1 SEC is reluctant to even make submissions on the issues that arise only in the context of approval of the transactions. In our view, these transactions are so bad for the target customers that no conditions, or other ameliorating factors, are appropriate. The transactions should simply not be approved. We do not wish our submissions on these points to be taken as implying that approval makes any sense at all. It doesn't.

5.1.2 That having been said, in the event the Board does approve these transactions, wse have the following submissions on other issues.

5.2 *Earnings Sharing Mechanism*

5.2.1 SEC is concerned that Hydro One has simply refused to put forward a true earnings sharing mechanism for the PDI and OPDC customers[118]. Instead, Hydro One has proposed to make a predetermined payment of $1.8 million to the customers of PDI, and $3.2 million to the customers of OPDC, in lieu of a calculation and sharing of earnings for those service territories.

5.2.2 On this point, SEC is conflicted. On the one hand, we believe that any calculation of the "overearnings" (which equates to a portion of the expected cost savings) applicable to the PDI or OPDC service territory will, if done properly, show that there are no overearnings, because there are no cost savings. Customers will therefore get 50% of nothing.

5.2.3 On the other hand, the Hydro One proposal is not real earnings sharing[119], and in any case has been adjusted to artificially reduce the earnings expected to be saved.

5.2.4 Therefore, if the Board approves the transactions SEC submits that the adjustments to the earnings sharing forecast should be removed, and earnings actually expected by Hydro One should be shared. This would mean restating the earnings sharing calculation to remove the reduction to OM&A, and remove the adjustments to cost of capital[120]. It should be recalculated to be consistent with the forecast of cost savings for each utility in Ex. A/2/1, p. 9 updated.

[118] They say they simply can't do it, which may well be true: AIC p. 15-6.
[119] Something they essentially admit: Tr.T2:36.
[120] See. Tr.T1:49,71-3.

5.3 *Incremental Capital Module*

5.3.1 Hydro One says that they do not expect to use the ICM capability, but they would like it to be available in accordance with the MAADs Policy and the ICM/ACM Policy.

5.3.2 SEC has made its concerns clear elsewhere with respect to the potential for misuse of the ICM in a rebasing deferral period. Hydro One has no history of doing so, however, and there is no reason that Hydro One should not have the same availability of ICM as any other consolidating distributor. If there is a problem in this context, it is a generic problem, not a problem specific to Hydro One.

5.4 *Specific Service Charges*

5.4.1 Hydro One has proposed to start using the Hydro One specific service charges rather than those currently used by PDI and OPDC. Some of the Hydro One service charges are notably higher than the target companies, but PDI and OPDC also have some service charges for which Hydro One does not charge at all. Hydro One's rationale for moving to their service charges is administrative efficiency.

5.4.2 SEC submits that Hydro One should be required to use the existing service charges until they are replaced by new service charges in a rate application before the Board. These are rates charged to customers, and for the customers directly affected they can be expected to have a material impact, in many cases negative.

5.4.3 It is, in our submission, not appropriate for Hydro One to seek a holus-bolus change in these rates, without any evidence showing that the Hydro One rates are more appropriate for PDI and OPDC customers over the next ten years. Instead, Hydro One proposes to use cost-based rates for its mostly rural service territory, in place of rates specifically set to recover the costs of services to PDI and OPDC customers.

5.4.4 SEC submits that this is not appropriate.

5.5 *USGAAP*

5.5.1 While the use of USGAAP continues to make it difficult to compare Hydro One to its peers, SEC agrees that it should use the same accounting method for acquired utilities as for its legacy business. As long as Hydro One is using USGAAP, it should use USGAAP for acquired businesses as well.

5.6 ***Deferral and Variance Accounts***

5.6.1 There are two issues that arise with respect to DVAs.

5.6.2 First, there are substantial balances accruing to the benefit of customers in accounts 1575 and/or 1576[121]. Hydro One has indicated that it believes it has a contractual obligation to clear these accounts to the benefit of customers immediately after closing of the transactions.

5.6.3 SEC submits that, if the Board approves either of these transactions, a condition of approval should be that amounts to the credit of customers in 1575 and 1576 be cleared to customers within the twelve month period after the closing.

5.6.4 Second, SEC notes that Hydro One plans to restate the depreciation rates for PDI and OPDC assets, and newly added assets, to Hydro One's rates. There is some information on the record as to the impact of this[122], but that information has not really been tested.

5.6.5 SEC submits that Hydro One should be required to record in a variance account (likely 1576), the difference in depreciation on all assets from time to time serving the PDI and OPDC customers between the depreciation used for current rates, and the Hydro One depreciation rates to be used going forward. This is consistent with the Board's clear view that accounting changes during an IRM period, including a deferred rebasing period, do not accrue to the benefit of the shareholders, but are adjusted to true up for the customers.

5.7 ***Tax FMV Bump***

5.7.1 Although the two transactions are structured differently, the evidence is that the value of assets or goodwill for tax purposes will increase as a result of the transaction (in one case due to the tax status of Hydro One, and in the other case due to the structure as a purchase of assets).

5.7.2 The issue of whether, as the Board has previously determined, the benefit of the FMV bump for tax purposes is shared between customers and shareholders is currently before the Courts. In the meantime, SEC submits that Hydro One should be required to calculate that benefit, and hold it in a deferral account for future consideration by the Board.

[121] Tr.T1:17; Tr.T2:136-7.
[122] JT1.5.

5.8 ***General Conditions***[123]

5.8.1 SEC has seen the OEB Staff Final Argument, which proposes that approvals may be granted for these transactions as long as appropriate conditions are attached. There are three reasons why SEC does not believe approval with conditions is appropriate.

5.8.2 First, SEC notes that making the shareholders responsible for cost allocation shortfalls is easier said than done. The Board sought to do that in EB-2017-0049, on an after the fact basis. The result may in fact have been – if the cost savings were as illusory there as in this case, or the cost allocation as problematic – that the shareholders will bear no costs, but will instead reap a benefit because legacy customers' rates are not adjusted. In effect, the deferred rebasing period is extended, with the legacy customers subsidizing the acquired customers, and the shareholders.

5.8.3 While we believe it is probably possible to design conditions that would protect all classes of customers, and put the shareholders truly at risk, that is decidedly not a trivial task. All parties would we believe have the right to make submissions in that regard, and the number of checks and balances necessary would not be small.

5.8.4 Second, the Board has generally not required its regulated entities to guarantee certain future events, and put the shareholders directly at risk for those results. That is not to say that is not something worth considering, but it is a relatively broad change in the Board's approach to regulation[124]. SEC believes that a step of that sort would benefit from a broader consultation with the industry, and is probably not best implemented in an individual case.

5.8.5 Third, the Board in this case is faced with establishing the limits of its MAADs Policy. Some parties, including Hydro One, want the Board to accept that every consolidation is by definition good, and the Board should bend over backward to approve each one. SEC believes that most consolidations are good, but there are exceptions. If the Board is not willing to say no when faced with an exception, that will limit the Board's ability to ensure consolidations truly benefit the industry and the customers.

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[123] Because SEC is filing this Final Argument late, we had the opportunity to read the Final Argument of OEB Staff before we filed. It is generally our view that it is improper to use late filing to advantage to comment on the arguments of other parties that had the same filing deadline, unless they voluntarily filed before the deadline. In this case, we are making an exception to provide brief comments on the OEB Staff proposal of conditions to approval. We note that Sections 1.2 and 1.3 of this Final Argument were written before the OEB Staff Final Argument was filed, and they express generally our position on the Applications, and indirectly cover the conditions question. If the Board feels that it is inappropriate for SEC to exercise an opportunity to reply in this Section 5.8, the Board should ignore this section and rely only on Sections 1.2 and 1.3. We are adding these brief comments to be of assistance to the Board, and to ensure that the only comments on the conditions proposal are not from Hydro One, but certainly not to take unfair advantage.

[124] Utilities are, of course, always at risk to a certain extent, but do not generally have to guarantee certain outcomes or face a penalty.

6 OTHER MATTERS

6.1 *Costs*

6.1.1 The School Energy Coalition hereby requests that the Board order payment of our reasonably incurred costs in connection with our participation in this proceeding. It is submitted that the School Energy Coalition has participated responsibly in all aspects of the process, in a manner designed to assist the Board as efficiently as possible.

All of which is respectfully submitted.

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Jay Shepherd
Counsel for the School Energy Coalition

Comparison of Distribution Rate Increases 2005 to 2013 to 2018 - Hydro One Acquired Distributors - General Service

Monthly Consumption ***100 kW***

Acquired Distributor	*Rate Class*	*2005 Dx. Rates*			*2013 Dx. Rates*			*Inc. 2005 to 2013*	*2018 Dx. Rates*			*Inc. 2013 to 2018*	*Inc. 2005 to 2018*
		Fixed	*Variable*	*Annual*	*Fixed*	*Variable*	*Annual*		*Fixed*	*Variable*	*Annual*		
Hydro One (Ailsa Craig)	GSd	$13.11	3.35000	$4,177.32	$55.62	11.37000	$14,311.44	242.60%	$114.96	17.95520	$22,925.76	60.19%	448.82%
Hydro One (Arkona)	GSd	$1.82	1.58000	$1,917.84	$55.62	11.37000	$14,311.44	646.23%	$114.96	17.95520	$22,925.76	60.19%	1095.39%
Hydro One (Arnprior	GSd	$16.36	2.96000	$3,748.32	$55.62	11.37000	$14,311.44	281.81%	$114.96	17.95520	$22,925.76	60.19%	511.63%
Hydro One (Arran-Elderside)	GSd	$6.32	2.63000	$3,231.84	$55.62	11.37000	$14,311.44	342.83%	$114.96	17.95520	$22,925.76	60.19%	609.37%
Hydro One (Artemesia)	GSd	$14.95	4.40000	$5,459.40	$55.62	11.37000	$14,311.44	162.14%	$114.96	17.95520	$22,925.76	60.19%	319.93%
Hydro One (Bancroft)	GSd	$18.78	2.96000	$3,777.36	$55.62	11.37000	$14,311.44	278.87%	$114.96	17.95520	$22,925.76	60.19%	506.93%
Hydro One (Bath)	GSd	$7.78	3.01000	$3,705.36	$55.62	11.37000	$14,311.44	286.24%	$114.96	17.95520	$22,925.76	60.19%	518.72%
Hydro One (Blandford-Blenheim)	GSd	$18.34	2.90000	$3,700.08	$55.62	11.37000	$14,311.44	286.79%	$114.96	17.95520	$22,925.76	60.19%	519.60%
Hydro One (Blyth)	GSd	$16.56	2.69000	$3,426.72	$55.62	11.37000	$14,311.44	317.64%	$114.96	17.95520	$22,925.76	60.19%	569.03%
Hydro One (Bobcaygeon)	GSd	$17.82	3.48000	$4,389.84	$55.62	11.37000	$14,311.44	226.01%	$114.96	17.95520	$22,925.76	60.19%	422.25%
Hydro One (Brighton)	GSd	$17.58	3.39000	$4,278.96	$55.62	11.37000	$14,311.44	234.46%	$114.96	17.95520	$22,925.76	60.19%	435.78%
Hydro One (Caledon CH 02)	GSd	$18.62	4.58000	$5,719.44	$55.62	11.37000	$14,311.44	150.22%	$114.96	17.95520	$22,925.76	60.19%	300.84%
Hydro One (Campbellford/Seymour)	GSd	$12.21	3.01000	$3,758.52	$55.62	11.37000	$14,311.44	280.77%	$114.96	17.95520	$22,925.76	60.19%	509.97%
Hydro One (Cavan-Millbrook-N. Monaghan)	GSd	$17.08	3.74000	$4,692.96	$55.62	11.37000	$14,311.44	204.96%	$114.96	17.95520	$22,925.76	60.19%	388.51%
Hydro One (Centre Hastings)	GSd	$13.96	2.46000	$3,119.52	$55.62	11.37000	$14,311.44	358.77%	$114.96	17.95520	$22,925.76	60.19%	634.91%
Hydro One (Chalk River)	GSd	$16.32	4.56000	$5,667.84	$55.62	11.37000	$14,311.44	152.50%	$114.96	17.95520	$22,925.76	60.19%	304.49%
Hydro One (Champlain Twp.)	GSd	$15.73	2.31000	$2,960.76	$55.62	11.37000	$14,311.44	383.37%	$114.96	17.95520	$22,925.76	60.19%	674.32%
Hydro One (Clarence-Rockland)	GSd	$5.07	2.07000	$2,544.84	$55.62	11.37000	$14,311.44	462.37%	$114.96	17.95520	$22,925.76	60.19%	800.87%
Hydro One (Cobden)	GSd	$16.80	5.19000	$6,429.60	$55.62	11.37000	$14,311.44	122.59%	$114.96	17.95520	$22,925.76	60.19%	256.57%
Hydro One (Deep River)	GSd	$18.41	5.75000	$7,120.92	$55.62	11.37000	$14,311.44	100.98%	$114.96	17.95520	$22,925.76	60.19%	221.95%
Hydro One (Deseronto)	GSd	$7.37	3.08000	$3,784.44	$55.62	11.37000	$14,311.44	278.17%	$114.96	17.95520	$22,925.76	60.19%	505.79%
Hydro One (Dundalk)	GSd	$18.11	4.14000	$5,185.32	$55.62	11.37000	$14,311.44	176.00%	$114.96	17.95520	$22,925.76	60.19%	342.13%
Hydro One (Durham)	GSd	$18.55	3.45000	$4,362.60	$55.62	11.37000	$14,311.44	228.05%	$114.96	17.95520	$22,925.76	60.19%	425.51%
Hydro One (Eganville)	GSd	$16.34	5.88000	$7,252.08	$55.62	11.37000	$14,311.44	97.34%	$114.96	17.95520	$22,925.76	60.19%	216.13%
Hydro One (Erin)	GSd	$31.56	1.89000	$2,646.72	$55.62	11.37000	$14,311.44	440.72%	$114.96	17.95520	$22,925.76	60.19%	766.20%
Hydro One (Exeter)	GSd	$8.34	3.29000	$4,048.08	$55.62	11.37000	$14,311.44	253.54%	$114.96	17.95520	$22,925.76	60.19%	466.34%
Hydro One (Fenelon Falls)	GSd	$15.10	2.42000	$3,085.20	$55.62	11.37000	$14,311.44	363.87%	$114.96	17.95520	$22,925.76	60.19%	643.09%
Hydro One (Forest)	GSd	$19.18	2.99000	$3,818.16	$55.62	11.37000	$14,311.44	274.83%	$114.96	17.95520	$22,925.76	60.19%	500.44%
Hydro One (Georgian Bay Energy - Chatsworth)	GSd	$7.88	2.91000	$3,586.56	$55.62	11.37000	$14,311.44	299.03%	$114.96	17.95520	$22,925.76	60.19%	539.21%
Hydro One (Georgina)	GSd	$13.18	4.08000	$5,054.16	$55.62	11.37000	$14,311.44	183.16%	$114.96	17.95520	$22,925.76	60.19%	353.60%
Hydro One (Glencoe)	GSd	$8.35	2.04000	$2,548.20	$55.62	11.37000	$14,311.44	461.63%	$114.96	17.95520	$22,925.76	60.19%	799.68%
Hydro One (Grand Bend)	GSd	$17.01	3.12000	$3,948.12	$55.62	11.37000	$14,311.44	262.49%	$114.96	17.95520	$22,925.76	60.19%	480.68%
Hydro One (Hastings)	GSd	$17.57	4.26000	$5,322.84	$55.62	11.37000	$14,311.44	168.87%	$114.96	17.95520	$22,925.76	60.19%	330.71%
Hydro One (Havelock-Belmont-Methuen)	GSd	$17.00	3.86000	$4,836.00	$55.62	11.37000	$14,311.44	195.94%	$114.96	17.95520	$22,925.76	60.19%	374.06%
Hydro One (Kirkfield)	GSd	$11.01	4.73000	$5,808.12	$55.62	11.37000	$14,311.44	146.40%	$114.96	17.95520	$22,925.76	60.19%	294.72%
Hydro One (Lanark Highlands)	GSd	$14.00	4.21000	$5,220.00	$55.62	11.37000	$14,311.44	174.17%	$114.96	17.95520	$22,925.76	60.19%	339.19%
Hydro One (Larder Lake)	GSd	$15.40	3.44000	$4,312.80	$55.62	11.37000	$14,311.44	231.84%	$114.96	17.95520	$22,925.76	60.19%	431.57%
Hydro One (Latchford)	GSd	$1.56	1.95000	$2,358.72	$55.62	11.37000	$14,311.44	506.75%	$114.96	17.95520	$22,925.76	60.19%	871.96%
Hydro One (Lucan/Granton)	GSd	$12.85	3.69000	$4,582.20	$55.62	11.37000	$14,311.44	212.33%	$114.96	17.95520	$22,925.76	60.19%	400.32%
Hydro One (Malahide Twp.)	GSd	$12.05	4.34000	$5,352.60	$55.62	11.37000	$14,311.44	167.37%	$114.96	17.95520	$22,925.76	60.19%	328.31%
Hydro One (Mapleton Twp.)	GSd	$16.50	4.34000	$5,406.00	$55.62	11.37000	$14,311.44	164.73%	$114.96	17.95520	$22,925.76	60.19%	324.08%
Hydro One (Markdale)	GSd	$17.66	2.03000	$2,647.92	$55.62	11.37000	$14,311.44	440.48%	$114.96	17.95520	$22,925.76	60.19%	765.80%
Hydro One (Marmora)	GSd	$7.27	2.66000	$3,279.24	$55.62	11.37000	$14,311.44	336.43%	$114.96	17.95520	$22,925.76	60.19%	599.12%
Hydro One (McGarry Twp.)	GSd	$15.40	4.54000	$5,632.80	$55.62	11.37000	$14,311.44	154.07%	$114.96	17.95520	$22,925.76	60.19%	307.00%

Hydro One (Meaford)	GSd	$18.49	3.12000	$3,965.88	$55.62	11.37000	$14,311.44	260.86%	$114.96	17.95520	$22,925.76	60.19%	478.07%
Hydro One (Middlesex Centre)	GSd	$13.14	2.64000	$3,325.68	$55.62	11.37000	$14,311.44	330.33%	$114.96	17.95520	$22,925.76	60.19%	589.36%
Hydro One (Napanee)	GSd	$16.99	3.23000	$4,079.88	$55.62	11.37000	$14,311.44	250.78%	$114.96	17.95520	$22,925.76	60.19%	461.92%
Hydro One (Nipigon Twp.)	GSd	$17.91	2.70000	$3,454.92	$55.62	11.37000	$14,311.44	314.23%	$114.96	17.95520	$22,925.76	60.19%	563.57%
Hydro One (North Dorchester Twp.)	GSd	$11.96	2.28000	$2,879.52	$55.62	11.37000	$14,311.44	397.01%	$114.96	17.95520	$22,925.76	60.19%	696.17%
Hydro One (North Dundas Twp.)	GSd	$10.07	1.94000	$2,448.84	$55.62	11.37000	$14,311.44	484.42%	$114.96	17.95520	$22,925.76	60.19%	836.19%
Hydro One (North Glengarry Twp.)	GSd	$13.43	2.26000	$2,873.16	$55.62	11.37000	$14,311.44	398.11%	$114.96	17.95520	$22,925.76	60.19%	697.93%
Hydro One (North Grenville - Kemptville)	GSd	$15.59	4.33000	$5,383.08	$55.62	11.37000	$14,311.44	165.86%	$114.96	17.95520	$22,925.76	60.19%	325.89%
Hydro One (North Perth - Listowel)	GSd	$22.87	2.53000	$3,310.44	$55.62	11.37000	$14,311.44	332.31%	$114.96	17.95520	$22,925.76	60.19%	592.53%
Hydro One (North Stormont)	GSd	$3.55	2.02000	$2,466.60	$55.62	11.37000	$14,311.44	480.21%	$114.96	17.95520	$22,925.76	60.19%	829.45%
Hydro One (Omemee)	GSd	$16.28	3.71000	$4,647.36	$55.62	11.37000	$14,311.44	207.95%	$114.96	17.95520	$22,925.76	60.19%	393.31%
Hydro One (Perth East Twp.)	GSd	$10.98	3.26000	$4,043.76	$55.62	11.37000	$14,311.44	253.91%	$114.96	17.95520	$22,925.76	60.19%	466.94%
Hydro One (Prince Edward County)	GSd	$17.54	3.56000	$4,482.48	$55.62	11.37000	$14,311.44	219.28%	$114.96	17.95520	$22,925.76	60.19%	411.45%
Hydro One (Quinte West - Frankford)	GSd	$2.25	2.65000	$3,207.00	$55.62	11.37000	$14,311.44	346.26%	$114.96	17.95520	$22,925.76	60.19%	614.87%
Hydro One (Rainy River)	GSd	$14.69	4.47000	$5,540.28	$55.62	11.37000	$14,311.44	158.32%	$114.96	17.95520	$22,925.76	60.19%	313.80%
Hydro One (Ramara Twp.)	GSd	$16.03	2.68000	$3,408.36	$55.62	11.37000	$14,311.44	319.89%	$114.96	17.95520	$22,925.76	60.19%	572.63%
Hydro One (Red Rock Twp.)	GSd	$16.57	4.92000	$6,102.84	$55.62	11.37000	$14,311.44	134.50%	$114.96	17.95520	$22,925.76	60.19%	275.66%
Hydro One (Russell)	GSd	$14.67	5.68000	$6,992.04	$55.62	11.37000	$14,311.44	104.68%	$114.96	17.95520	$22,925.76	60.19%	227.88%
Hydro One (Schreiber Twp.)	GSd	$15.82	5.89000	$7,257.84	$55.62	11.37000	$14,311.44	97.19%	$114.96	17.95520	$22,925.76	60.19%	215.88%
Hydro One (Severn Twp)	GSd	$16.99	2.68000	$3,419.88	$55.62	11.37000	$14,311.44	318.48%	$114.96	17.95520	$22,925.76	60.19%	570.37%
Hydro One (Shelburne)	GSd	$15.26	2.23000	$2,859.12	$55.62	11.37000	$14,311.44	400.55%	$114.96	17.95520	$22,925.76	60.19%	701.85%
Hydro One (South Bruce Peninsula - Wiarton)	GSd	$18.28	4.79000	$5,967.36	$55.62	11.37000	$14,311.44	139.83%	$114.96	17.95520	$22,925.76	60.19%	284.19%
Hydro One (South Glengarry)	GSd	$13.19	1.90000	$2,438.28	$55.62	11.37000	$14,311.44	486.95%	$114.96	17.95520	$22,925.76	60.19%	840.24%
Hydro One (South River)	GSd	$16.94	3.90000	$4,883.28	$55.62	11.37000	$14,311.44	193.07%	$114.96	17.95520	$22,925.76	60.19%	369.47%
Hydro One (Springwater Twp.)	GSd	$15.68	2.73000	$3,464.16	$55.62	11.37000	$14,311.44	313.13%	$114.96	17.95520	$22,925.76	60.19%	561.80%
Hydro One (Stirling-Rawdon Twp.)	GSd	$18.55	3.29000	$4,170.60	$55.62	11.37000	$14,311.44	243.15%	$114.96	17.95520	$22,925.76	60.19%	449.70%
Hydro One (Thedford)	GSd	$13.52	2.70000	$3,402.24	$55.62	11.37000	$14,311.44	320.65%	$114.96	17.95520	$22,925.76	60.19%	573.84%
Hydro One (Thessalon)	GSd	$14.38	2.58000	$3,268.56	$55.62	11.37000	$14,311.44	337.85%	$114.96	17.95520	$22,925.76	60.19%	601.40%
Hydro One (Thorndale)	GSd	$10.87	2.60000	$3,250.44	$55.62	11.37000	$14,311.44	340.29%	$114.96	17.95520	$22,925.76	60.19%	605.31%
Hydro One (Tweed)	GSd	$5.87	2.49000	$3,058.44	$55.62	11.37000	$14,311.44	367.93%	$114.96	17.95520	$22,925.76	60.19%	649.59%
Hydro One (Wardsville)	GSd	$9.11	2.53000	$3,145.32	$55.62	11.37000	$14,311.44	355.01%	$114.96	17.95520	$22,925.76	60.19%	628.88%
Hydro One (Warkworth)	GSd	$16.31	3.58000	$4,491.72	$55.62	11.37000	$14,311.44	218.62%	$114.96	17.95520	$22,925.76	60.19%	410.40%
Hydro One (West Elgin)	GSd	$11.57	1.77000	$2,262.84	$55.62	11.37000	$14,311.44	532.45%	$114.96	17.95520	$22,925.76	60.19%	913.14%
Hydro One (Woodville)	GSd	$12.77	3.47000	$4,317.24	$55.62	11.37000	$14,311.44	231.50%	$114.96	17.95520	$22,925.76	60.19%	431.03%
Hydro One (Wyoming)	GSd	$13.15	3.66000	$4,549.80	$55.62	11.37000	$14,311.44	214.55%	$114.96	17.95520	$22,925.76	60.19%	403.89%
Averages - Hydro One Medium Density Acquireds		$14.10	3.30544	$4,135.77	$55.62	11.37000	$14,311.44	246.04%	$114.96	17.95520	$22,925.76	60.19%	454.33%
Hydro One (Brockville)	UGd	$16.58	1.99000	$2,586.96	$32.32	6.91400	$8,684.64	235.71%	$98.94	10.39540	$13,661.76	57.31%	428.10%
Hydro One (Caledon OH 01)	UGd	$19.71	4.28000	$5,372.52	$32.32	6.91400	$8,684.64	61.65%	$98.94	10.39540	$13,661.76	57.31%	154.29%
Hydro One (Carleton Place)	UGd	$18.18	4.25000	$5,318.16	$32.32	6.91400	$8,684.64	63.30%	$98.94	10.39540	$13,661.76	57.31%	156.89%
Hydro One (Dryden)	UGd	$14.55	2.64000	$3,342.60	$32.32	6.91400	$8,684.64	159.82%	$98.94	10.39540	$13,661.76	57.31%	308.72%
Hydro One (Georgian Bay Energy - Owen Sound)	UGd	$7.88	2.91000	$3,586.56	$32.32	6.91400	$8,684.64	142.14%	$98.94	10.39540	$13,661.76	57.31%	280.92%
Hydro One (Lindsay)	UGd	$18.41	3.49000	$4,408.92	$32.32	6.91400	$8,684.64	96.98%	$98.94	10.39540	$13,661.76	57.31%	209.87%
Hydro One (Perth)	UGd	$15.19	2.30000	$2,942.28	$32.32	6.91400	$8,684.64	195.17%	$98.94	10.39540	$13,661.76	57.31%	364.33%
Hydro One (Quinte West - Trenton)	UGd	$2.25	2.65000	$3,207.00	$32.32	6.91400	$8,684.64	170.80%	$98.94	10.39540	$13,661.76	57.31%	326.00%
Hydro One (Smiths Falls)	UGd	$7.13	2.66000	$3,277.56	$32.32	6.91400	$8,684.64	164.97%	$98.94	10.39540	$13,661.76	57.31%	316.83%
Hydro One (Thorold)	UGd	$17.36	3.81000	$4,780.32	$32.32	6.91400	$8,684.64	81.67%	$98.94	10.39540	$13,661.76	57.31%	185.79%
Hydro One (Whitchurch-Stouffville)	UGd	$16.73	2.35000	$3,020.76	$32.32	6.91400	$8,684.64	187.50%	$98.94	10.39540	$13,661.76	57.31%	352.26%
Averages - Hydro One Urban Acquireds		$14.00	3.03000	$3,803.97	$32.32	6.91400	$8,684.64	128.30%	$98.94	10.39540	$13,661.76	57.31%	259.15%

Comparison of Distribution Rate Increases 2005 to 2013 to 2018 - Hydro One Acquired Distributors - Residential

Monthly Consumption ***750 kwhr***

Acquired Distributor	*Rate Class*	*2005 Dx. Rates*			*2013 Dx. Rates*			*Inc. 2005 to 2013*	*2018 Dx. Rates*			*Inc. 2013 to 2018*	*Inc. 2005 to 2018*
		Fixed	*Variable*	*Annual*	*Fixed*	*Variable*	*Annual*		*Fixed*	*Variable*	*Annual*		
Hydro One (Ailsa Craig)	R1	$7.67	0.00660	$151.44	$23.85	0.03353	$587.97	288.25%	$40.45	0.02310	$693.30	17.91%	357.81%
Hydro One (Arkona)	R1	$3.93	0.00210	$66.06	$23.85	0.03353	$587.97	790.05%	$40.45	0.02310	$693.30	17.91%	949.50%
Hydro One (Arnprior	R1	$8.49	0.01170	$207.18	$23.85	0.03353	$587.97	183.80%	$40.45	0.02310	$693.30	17.91%	234.64%
Hydro One (Arran-Elderside)	R1	$6.47	0.00760	$146.04	$23.85	0.03353	$587.97	302.61%	$40.45	0.02310	$693.30	17.91%	374.73%
Hydro One (Artemesia)	R1	$9.44	0.00590	$166.38	$23.85	0.03353	$587.97	253.39%	$40.45	0.02310	$693.30	17.91%	316.70%
Hydro One (Bancroft)	R1	$10.04	0.00760	$188.88	$23.85	0.03353	$587.97	211.29%	$40.45	0.02310	$693.30	17.91%	267.06%
Hydro One (Bath)	R1	$9.96	0.00690	$181.62	$23.85	0.03353	$587.97	223.74%	$40.45	0.02310	$693.30	17.91%	281.73%
Hydro One (Blandford-Blenheim)	R1	$8.56	0.00720	$167.52	$23.85	0.03353	$587.97	250.98%	$40.45	0.02310	$693.30	17.91%	313.86%
Hydro One (Blyth)	R1	$5.01	0.00730	$125.82	$23.85	0.03353	$587.97	367.31%	$40.45	0.02310	$693.30	17.91%	451.03%
Hydro One (Bobcaygeon)	R1	$10.83	0.00780	$200.16	$23.85	0.03353	$587.97	193.75%	$40.45	0.02310	$693.30	17.91%	246.37%
Hydro One (Brighton)	R1	$8.54	0.00860	$179.88	$23.85	0.03353	$587.97	226.87%	$40.45	0.02310	$693.30	17.91%	285.42%
Hydro One (Caledon CH 02)	R1	$11.41	0.00820	$210.72	$23.85	0.03353	$587.97	179.03%	$40.45	0.02310	$693.30	17.91%	229.01%
Hydro One (Campbellford/Seymour)	R1	$9.10	0.00860	$186.60	$23.85	0.03353	$587.97	215.10%	$40.45	0.02310	$693.30	17.91%	271.54%
Hydro One (Cavan-Millbrook-N. Monaghan)	R1	$11.27	0.01070	$231.54	$23.85	0.03353	$587.97	153.94%	$40.45	0.02310	$693.30	17.91%	199.43%
Hydro One (Centre Hastings)	R1	$8.59	0.00770	$172.38	$23.85	0.03353	$587.97	241.09%	$40.45	0.02310	$693.30	17.91%	302.19%
Hydro One (Chalk River)	R1	$10.48	0.01090	$223.86	$23.85	0.03353	$587.97	162.65%	$40.45	0.02310	$693.30	17.91%	209.70%
Hydro One (Champlain Twp.)	R1	$7.55	0.00710	$154.50	$23.85	0.03353	$587.97	280.56%	$40.45	0.02310	$693.30	17.91%	348.74%
Hydro One (Clarence-Rockland)	R1	$6.78	0.00740	$147.96	$23.85	0.03353	$587.97	297.38%	$40.45	0.02310	$693.30	17.91%	368.57%
Hydro One (Cobden)	R1	$9.86	0.01410	$245.22	$23.85	0.03353	$587.97	139.77%	$40.45	0.02310	$693.30	17.91%	182.73%
Hydro One (Deep River)	R1	$12.55	0.01830	$315.30	$23.85	0.03353	$587.97	86.48%	$40.45	0.02310	$693.30	17.91%	119.89%
Hydro One (Deseronto)	R1	$9.57	0.00890	$194.94	$23.85	0.03353	$587.97	201.62%	$40.45	0.02310	$693.30	17.91%	255.65%
Hydro One (Dundalk)	R1	$10.83	0.00870	$208.26	$23.85	0.03353	$587.97	182.32%	$40.45	0.02310	$693.30	17.91%	232.90%
Hydro One (Durham)	R1	$12.34	0.00990	$237.18	$23.85	0.03353	$587.97	147.90%	$40.45	0.02310	$693.30	17.91%	192.31%
Hydro One (Eganville)	R1	$10.34	0.01220	$233.88	$23.85	0.03353	$587.97	151.40%	$40.45	0.02310	$693.30	17.91%	196.43%
Hydro One (Erin)	R1	$9.76	0.01520	$253.92	$23.85	0.03353	$587.97	131.56%	$40.45	0.02310	$693.30	17.91%	173.04%
Hydro One (Exeter)	R1	$11.34	0.00770	$205.38	$23.85	0.03353	$587.97	186.28%	$40.45	0.02310	$693.30	17.91%	237.57%
Hydro One (Fenelon Falls)	R1	$4.13	0.00770	$118.86	$23.85	0.03353	$587.97	394.67%	$40.45	0.02310	$693.30	17.91%	483.29%
Hydro One (Forest)	R1	$11.46	0.00760	$205.92	$23.85	0.03353	$587.97	185.53%	$40.45	0.02310	$693.30	17.91%	236.68%
Hydro One (Georgian Bay Energy - Chatsworth)	R1	$7.00	0.00760	$152.40	$23.85	0.03353	$587.97	285.81%	$40.45	0.02310	$693.30	17.91%	354.92%
Hydro One (Georgina)	R1	$8.63	0.00790	$174.66	$23.85	0.03353	$587.97	236.64%	$40.45	0.02310	$693.30	17.91%	296.94%
Hydro One (Glencoe)	R1	$9.58	0.00620	$170.76	$23.85	0.03353	$587.97	244.33%	$40.45	0.02310	$693.30	17.91%	306.01%
Hydro One (Grand Bend)	R1	$10.12	0.00700	$184.44	$23.85	0.03353	$587.97	218.79%	$40.45	0.02310	$693.30	17.91%	275.89%
Hydro One (Hastings)	R1	$12.41	0.01080	$246.12	$23.85	0.03353	$587.97	138.90%	$40.45	0.02310	$693.30	17.91%	181.69%
Hydro One (Havelock-Belmont-Methuen)	R1	$11.40	0.00910	$218.70	$23.85	0.03353	$587.97	168.85%	$40.45	0.02310	$693.30	17.91%	217.01%
Hydro One (Kirkfield)	R1	$3.53	0.00800	$114.36	$23.85	0.03353	$587.97	414.14%	$40.45	0.02310	$693.30	17.91%	506.24%
Hydro One (Lanark Highlands)	R1	$8.30	0.00820	$173.40	$23.85	0.03353	$587.97	239.08%	$40.45	0.02310	$693.30	17.91%	299.83%
Hydro One (Larder Lake)	R1	$11.93	0.00810	$216.06	$23.85	0.03353	$587.97	172.13%	$40.45	0.02310	$693.30	17.91%	220.88%
Hydro One (Latchford)	R1	$9.90	0.00710	$182.70	$23.85	0.03353	$587.97	221.82%	$40.45	0.02310	$693.30	17.91%	279.47%

Hydro One (Lucan/Granton)	R1	$8.63	0.01130	$205.26	$23.85	0.03353	$587.97	186.45%	$40.45	0.02310	$693.30	17.91%	237.77%
Hydro One (Malahide Twp.)	R1	$8.19	0.00700	$161.28	$23.85	0.03353	$587.97	264.56%	$40.45	0.02310	$693.30	17.91%	329.87%
Hydro One (Mapleton Twp.)	R1	$10.03	0.00740	$186.96	$23.85	0.03353	$587.97	214.49%	$40.45	0.02310	$693.30	17.91%	270.83%
Hydro One (Markdale)	R1	$10.70	0.00690	$190.50	$23.85	0.03353	$587.97	208.65%	$40.45	0.02310	$693.30	17.91%	263.94%
Hydro One (Marmora)	R1	$8.53	0.00740	$168.96	$23.85	0.03353	$587.97	247.99%	$40.45	0.02310	$693.30	17.91%	310.33%
Hydro One (McGarry Twp.)	R1	$9.54	0.00750	$181.98	$23.85	0.03353	$587.97	223.10%	$40.45	0.02310	$693.30	17.91%	280.98%
Hydro One (Meaford)	R1	$9.46	0.00780	$183.72	$23.85	0.03353	$587.97	220.04%	$40.45	0.02310	$693.30	17.91%	277.37%
Hydro One (Middlesex Centre)	R1	$10.61	0.00630	$184.02	$23.85	0.03353	$587.97	219.51%	$40.45	0.02310	$693.30	17.91%	276.75%
Hydro One (Napanee)	R1	$11.02	0.00820	$206.04	$23.85	0.03353	$587.97	185.37%	$40.45	0.02310	$693.30	17.91%	236.49%
Hydro One (Nipigon Twp.)	R1	$11.33	0.01310	$253.86	$23.85	0.03353	$587.97	131.61%	$40.45	0.02310	$693.30	17.91%	173.10%
Hydro One (North Dorchester Twp.)	R1	$6.43	0.00690	$139.26	$23.85	0.03353	$587.97	322.21%	$40.45	0.02310	$693.30	17.91%	397.85%
Hydro One (North Dundas Twp.)	R1	$8.19	0.00780	$168.48	$23.85	0.03353	$587.97	248.99%	$40.45	0.02310	$693.30	17.91%	311.50%
Hydro One (North Glengarry Twp.)	R1	$5.45	0.00820	$139.20	$23.85	0.03353	$587.97	322.39%	$40.45	0.02310	$693.30	17.91%	398.06%
Hydro One (North Grenville - Kemptville)	R1	$10.78	0.01320	$248.16	$23.85	0.03353	$587.97	136.93%	$40.45	0.02310	$693.30	17.91%	179.38%
Hydro One (North Perth - Listowel)	R1	$11.04	0.00840	$208.08	$23.85	0.03353	$587.97	182.57%	$40.45	0.02310	$693.30	17.91%	233.19%
Hydro One (North Stormont)	R1	$3.59	0.00740	$109.68	$23.85	0.03353	$587.97	436.08%	$40.45	0.02310	$693.30	17.91%	532.11%
Hydro One (Omemee)	R1	$11.25	0.01200	$243.00	$23.85	0.03353	$587.97	141.96%	$40.45	0.02310	$693.30	17.91%	185.31%
Hydro One (Perth East Twp.)	R1	$4.02	0.00630	$104.94	$23.85	0.03353	$587.97	460.29%	$40.45	0.02310	$693.30	17.91%	560.66%
Hydro One (Prince Edward County)	R1	$10.66	0.00840	$203.52	$23.85	0.03353	$587.97	188.90%	$40.45	0.02310	$693.30	17.91%	240.65%
Hydro One (Quinte West - Frankford)	R1	$4.52	0.00740	$120.84	$23.85	0.03353	$587.97	386.57%	$40.45	0.02310	$693.30	17.91%	473.73%
Hydro One (Rainy River)	R1	$11.41	0.00840	$212.52	$23.85	0.03353	$587.97	176.67%	$40.45	0.02310	$693.30	17.91%	226.23%
Hydro One (Ramara Twp.)	R1	$4.47	0.00760	$122.04	$23.85	0.03353	$587.97	381.78%	$40.45	0.02310	$693.30	17.91%	468.09%
Hydro One (Red Rock Twp.)	R1	$12.04	0.01800	$306.48	$23.85	0.03353	$587.97	91.85%	$40.45	0.02310	$693.30	17.91%	126.21%
Hydro One (Russell)	R1	$9.74	0.01150	$220.38	$23.85	0.03353	$587.97	166.80%	$40.45	0.02310	$693.30	17.91%	214.59%
Hydro One (Schreiber Twp.)	R1	$12.31	0.01470	$280.02	$23.85	0.03353	$587.97	109.97%	$40.45	0.02310	$693.30	17.91%	147.59%
Hydro One (Severn Twp)	R1	$7.74	0.00720	$157.68	$23.85	0.03353	$587.97	272.89%	$40.45	0.02310	$693.30	17.91%	339.69%
Hydro One (Shelburne)	R1	$10.57	0.01060	$222.24	$23.85	0.03353	$587.97	164.57%	$40.45	0.02310	$693.30	17.91%	211.96%
Hydro One (South Bruce Peninsula - Wiarton)	R1	$11.92	0.01240	$254.64	$23.85	0.03353	$587.97	130.90%	$40.45	0.02310	$693.30	17.91%	172.27%
Hydro One (South Glengarry)	R1	$6.82	0.00600	$135.84	$23.85	0.03353	$587.97	332.84%	$40.45	0.02310	$693.30	17.91%	410.38%
Hydro One (South River)	R1	$10.63	0.01000	$217.56	$23.85	0.03353	$587.97	170.26%	$40.45	0.02310	$693.30	17.91%	218.67%
Hydro One (Springwater Twp.)	R1	$8.69	0.00660	$163.68	$23.85	0.03353	$587.97	259.22%	$40.45	0.02310	$693.30	17.91%	323.57%
Hydro One (Stirling-Rawdon Twp.)	R1	$9.30	0.00830	$186.30	$23.85	0.03353	$587.97	215.60%	$40.45	0.02310	$693.30	17.91%	272.14%
Hydro One (Thedford)	R1	$9.46	0.00650	$172.02	$23.85	0.03353	$587.97	241.80%	$40.45	0.02310	$693.30	17.91%	303.03%
Hydro One (Thessalon)	R1	$11.70	0.00840	$216.00	$23.85	0.03353	$587.97	172.21%	$40.45	0.02310	$693.30	17.91%	220.97%
Hydro One (Thorndale)	R1	$2.71	0.00710	$96.42	$23.85	0.03353	$587.97	509.80%	$40.45	0.02310	$693.30	17.91%	619.04%
Hydro One (Tweed)	R1	$2.84	0.00760	$102.48	$23.85	0.03353	$587.97	473.74%	$40.45	0.02310	$693.30	17.91%	576.52%
Hydro One (Wardsville)	R1	$6.97	0.00780	$153.84	$23.85	0.03353	$587.97	282.20%	$40.45	0.02310	$693.30	17.91%	350.66%
Hydro One (Warkworth)	R1	$11.45	0.00940	$222.00	$23.85	0.03353	$587.97	164.85%	$40.45	0.02310	$693.30	17.91%	212.30%
Hydro One (West Elgin)	R1	$9.89	0.01130	$220.38	$23.85	0.03353	$587.97	166.80%	$40.45	0.02310	$693.30	17.91%	214.59%
Hydro One (Woodville)	R1	$2.28	0.00760	$95.76	$23.85	0.03353	$587.97	514.00%	$40.45	0.02310	$693.30	17.91%	624.00%
Hydro One (Wyoming)	R1	$8.47	0.00650	$160.14	$23.85	0.03353	$587.97	267.16%	$40.45	0.02310	$693.30	17.91%	332.93%
Averages - Hydro One Medium Density Acquireds		$8.92	0.00877	$185.91	$23.85	0.03353	$587.97	216.26%	$40.45	0.02310	$693.30	17.91%	272.92%

Hydro One (Brockville)	UR	$9.12	0.00750	$176.94	$16.50	0.02529	$425.61	140.54%	$30.09	0.00750	$428.58	0.70%	142.22%
Hydro One (Caledon OH 01)	UR	$14.07	0.00460	$210.24	$16.50	0.02529	$425.61	102.44%	$30.09	0.00750	$428.58	0.70%	103.85%
Hydro One (Carleton Place)	UR	$10.59	0.01430	$255.78	$16.50	0.02529	$425.61	66.40%	$30.09	0.00750	$428.58	0.70%	67.56%
Hydro One (Dryden)	UR	$10.68	0.01320	$246.96	$16.50	0.02529	$425.61	72.34%	$30.09	0.00750	$428.58	0.70%	73.54%
Hydro One (Georgian Bay Energy - Owen Sound)	UR	$7.00	0.00860	$161.40	$16.50	0.02529	$425.61	163.70%	$30.09	0.00750	$428.58	0.70%	165.54%
Hydro One (Lindsay)	UR	$11.90	0.00810	$215.70	$16.50	0.02529	$425.61	97.32%	$30.09	0.00750	$428.58	0.70%	98.69%
Hydro One (Perth)	UR	$10.83	0.00970	$217.26	$16.50	0.02529	$425.61	95.90%	$30.09	0.00750	$428.58	0.70%	97.27%
Hydro One (Quinte West - Trenton)	UR	$4.52	0.00740	$120.84	$16.50	0.02529	$425.61	252.21%	$30.09	0.00750	$428.58	0.70%	254.67%
Hydro One (Smiths Falls)	UR	$9.36	0.01130	$214.02	$16.50	0.02529	$425.61	98.86%	$30.09	0.00750	$428.58	0.70%	100.25%
Hydro One (Thorold)	UR	$10.20	0.01170	$227.70	$16.50	0.02529	$425.61	86.92%	$30.09	0.00750	$428.58	0.70%	88.22%
Hydro One (Whitchurch-Stouffville)	UR	$7.69	0.00820	$166.08	$16.50	0.02529	$425.61	156.27%	$30.09	0.00750	$428.58	0.70%	158.06%
Averages - Hydro One Urban Acquireds		$9.63	0.00951	$201.17	$16.50	0.02529	$425.61	111.56%	$30.09	0.00750	$428.58	0.70%	113.04%
Hydro One Legacy	R1	$15.99	0.02100	$380.88	$23.85	0.03353	$587.97	54.37%	$40.45	0.02310	$693.30	17.91%	82.03%
Hydro One Legacy	UR	$11.82	0.01610	$286.74	$16.50	0.02529	$425.61	48.43%	$30.09	0.00750	$428.58	0.70%	49.47%