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Energy
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de l'énergie
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DECISION AND ORDER

EB-2017-0049

HYDRO ONE NETWORKS INC.

**Application for electricity distribution rates beginning January 1,
2018 until December 31, 2022**

BEFORE: Ken Quesnelle
Presiding Member

Emad Elsayed
Member

Lynne Anderson
Member

March 7, 2019

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1 INTRODUCTION AND SUMMARY

This Decision and Order responds to the application by Hydro One Networks Inc. (Hydro One) for Ontario Energy Board (OEB) approval of its electricity distribution rates and other charges to be effective January 1, 2018 to December 31, 2022.

Hydro One is a wholly owned subsidiary of Hydro One Inc., which is a wholly owned subsidiary of the parent company Hydro One Limited. Neither Hydro One Limited nor Hydro One Inc. is regulated by the OEB. Hydro One is the OEB regulated utility. This is because Hydro One is a monopoly electricity transmission and distribution services provider.

Hydro One owns and operates the largest electricity transmission and distribution system in Ontario. The transmission system is made up of a high voltage network of transmission lines, steel towers and equipment. It conveys electricity long distances from electricity generation facilities to large power consumers, urban centres and to transformer stations. The distribution system consists of a lower voltage network of distribution lines, poles and equipment. It conveys electricity at lower voltages from the transformer stations to homes and businesses throughout the province.

Hydro One applies for transmission rates and distribution rates separately at the present time. This Decision and Order deals with an application by Hydro One for the approval of distribution rates.

- i. Hydro One's distribution system serves approximately 1.3 million distribution customers and smaller electricity distributors primarily in the rural and remote areas of the province.

The rates that the OEB has approved in this Decision and Order are set based on the OEB's determination of the level of revenue that is required by Hydro One to cover the reasonably incurred costs of operating and maintaining the distribution system at a level of service that meets the needs of its customers.

In October 2016, the OEB issued its *Handbook for Utility Rate Applications* (the Rate Handbook) which outlines the key principles and expectations the OEB will apply when reviewing rate applications under the *Renewed Regulatory Framework* (RRF).¹ One of the multi-year rate-setting options identified in the Rate Handbook is custom incentive

¹ Ontario Energy Board *Report of the Board Renewed Regulatory Framework for Electricity Distributors: A Performance-Based Approach*, October 18, 2012.

rate-setting (Custom IR). This was the methodology on which Hydro One's application was based.

The OEB has concluded that Hydro One's proposed five-year term for rates from 2018 to 2022 has sufficiently met the requirements of a Custom IR application and a five-year term is approved. The use of an earnings sharing mechanism (ESM) will provide protection for customers if cost and load forecasts differ from actual results.

Hydro One proposed that the annual rate escalation be determined by a revenue cap index (RCI) where RCI growth is driven by an inflation factor less a productivity factor of zero, no stretch factor and a capital factor. The OEB accepts Hydro One's proposed RCI approach as well as its proposed inflation factor, productivity factor of zero and stretch factor of 0.45%. The OEB also approves the approach to the capital factor proposed by Hydro One, but imposes an additional 0.15% stretch factor to be subtracted from the calculated capital factor, which is in addition to the aforementioned 0.45% stretch factor.

Hydro One asked the OEB to approve its proposed 2018 distribution rates and its proposed Custom IR rate model to determine rates for the period from January 1, 2019 to December 31, 2022. The total annual increases requested would have resulted in a 14% increase in distribution revenues over the five-year period, from \$1.5 billion in 2018 to \$1.7 billion in 2022.²

The OEB finds that the proposed overall increase in the distribution revenue requirement from 2018 to 2022 is not reasonable. This Decision and Order includes specific findings on the components of the revenue requirement that lead to this conclusion. The OEB finds that with the adjustments required by this Decision and Order, the revenues required to provide distribution service will be reasonable.

The OEB has determined that Hydro One has not adequately responded to customer concerns in the current application. While the customer consultation process followed by Hydro One in this proceeding was an improvement compared to past efforts, Hydro One needs to plan and execute its future customer consultation activities such that the results provide meaningful and timely input to the development of its investment planning and prioritization process. As a result, the OEB has given Hydro One's evidence related to customer consultation limited weight in this proceeding.

The OEB is requiring an overall reduction in Hydro One's proposed total capital expenditures for the five-year period of \$300 million (from \$3,573.3 million to \$3,273.3

² *Final Argument of Hydro One Networks Inc.* July 20, 2018, p. 20.

million) representing an 8.4% reduction. This reduction reflects the OEB's concerns in a number of areas, particularly the need for Hydro One to demonstrate improvements in customer consultation and investment planning processes, finding ways of doing more work for less, executing the work program as planned, and improving performance relative to its peers. This amount does not include pension related reductions (\$20 million in 2018) or reductions related to the Hydro One Accountability Act (HOAA) (\$3.6 million in 2018). On February 21, 2019, the Management Board of Cabinet issued a Directive under the authority of the HOAA. The Decision and Order requires Hydro One to make any additional adjustments necessary through the draft rate order process to reflect the requirements of this Directive.

The OEB is also requiring a reduction to Hydro One's proposed 2018 Operation, Maintenance and Administration (OM&A) budget of \$32.3 million, from \$576.7 million to \$544.4 million. The OEB finds that the proposed budget has not been fully justified. This reduction includes \$10 million based on Hydro One's past cost performance, \$4.8 million related to above market median compensation, \$17 million related to pensions and \$0.5 million associated with the HOAA.

The OEB finds that its ongoing concern about Hydro One's compensation costs being higher than comparable companies has not been satisfactorily addressed. This concern has been expressed in almost every OEB decision involving both the distribution and transmission costs for Hydro One for the last ten years. The OEB has accordingly disallowed the full \$17.5 million premium over market median as there is no compelling reason for the ratepayers to continue to be burdened with this unreasonable compensation level. This reduction is included in the overall OM&A reduction discussed in the previous paragraph. The net amount disallowed by the OEB in relation to compensation took into consideration the following items related specifically to executive compensation:

- Hydro One's proposed reduction to executive compensation to be consistent with a prior OEB decision for its transmission business
- The impact of the Hydro One Accountability Act (HOAA)
- Hydro One's proposal to exclude the cost associated with members of its Executive Leadership Team

Unless noted otherwise in this Decision and Order, the OEB findings are based on the information available prior to the introduction of the HOAA. As stated earlier, the HOAA impact on the OM&A was factored into this Decision and Order. No future OM&A adjustments are required for the HOAA beyond 2018 as OM&A amounts are formulaically derived from the approved 2018 OM&A budget. The capital cost impact

provided by Hydro One in response to the HOAA³ did not provide enough granularity in the capital cost forecast breakdown to enable a detailed review. However, based on Hydro One's information, the impact of the HOAA on the 2018-2022 capital forecast (a reduction of approximately \$18.7 million or 0.5%) is not material enough to have an impact on the OEB findings.

The OEB commends Hydro One for its development of its First Nations and Métis Relations Strategy Framework and for providing an example of how a cooperative approach can result in mutually beneficial outcomes. The OEB encourages both Hydro One and First Nations and Métis groups to continue this approach to achieving an understanding of the concerns and the implementation of solutions.

The OEB has determined that Hydro One's proposed cost allocation to the Acquired Utilities (Norfolk, Haldimand and Woodstock) does not reflect the OEB's decisions in the related Hydro One acquisition proceedings.

The OEB has a mandate to ensure the financial viability of the sector and considers matters of consolidation to be of the utmost importance in this regard. The ongoing cost of ownership of these entities to Hydro One and the lost opportunity for actual improvements in distribution sector efficiency are negative impacts that run counter to the OEB's consolidation framework objectives.

The OEB has accordingly determined that any shortfall in revenue requirement that results from Hydro One's cost being higher than its current and future approved revenues associated with the Acquired Utilities shall be absorbed by Hydro One and not form any part of the overall revenue requirement during the plan term. Hydro One may apply to the OEB using the Price Cap IR approach to be applied to the current base rates for the Acquired Utilities, to take effect at the end of the respective deferred rebasing periods.

³ EB-2017-0049 *Hydro One Networks Inc.'s 2018-2022 Distribution Custom IR Application – Evidence related to Section 78(5.0.2) of the OEB Act*, October 26, 2018.

2 THE PROCESS AND ORGANIZATION OF THE DECISION

Hydro One applied to the OEB on March 31, 2017 for approval of electricity distribution rates beginning January 1, 2018 until December 31, 2022 under the Custom IR option.

Following the publication of a Notice of Hearing on May 24, 2017, the OEB granted intervenor status to 30 parties:

- Anwaatin Inc. (Anwaatin)
- Arbourbrook Estates Homeowners Group (Arbourbrook)
- Association of Major Power Consumers in Ontario (AMPCO)
- Balsam Lake Coalition (Balsam Lake)
- Bragg Communications Inc. and Persona Communications, operating as EastLink (EastLink)
- Building Owners and Managers Association, Greater Toronto (BOMA)
- Cable Cable Inc. (Cable Cable)
- Canadian Cable Systems Alliance Inc. (CCSA)
- Canadian Manufacturers & Exporters (CME)
- City of Hamilton
- Cogeco Connexion Inc. (Cogeco)
- Consumers Council of Canada (CCC)
- Doyle Salewski Inc. (Doyle Salewski)
- Energy Probe Research Foundation (Energy Probe)
- Energy Storage Canada (ESC)
- Independent Electricity System Operator (IESO)
- Independent Telecommunications Providers Association (ITPA)
- Ontario Sustainable Energy Association (OSEA)
- Power Workers' Union (PWU)

- Quebecor Media Inc. (Quebecor)
- Quinte Manufacturers Association (QMA)
- Rice Lake Tourist Association (Rice Lake)
- Rogers Communications Canada Inc. (Rogers)
- School Energy Coalition (SEC)
- Shaw Communications Inc. (Shaw)
- Society of United Professionals (SUP)
- Sunset Bay Road Cottagers (Sunset Bay)
- Sustainable Infrastructure Alliance of Ontario (SIA)
- Union Gas Limited (Union Gas)
- Vulnerable Energy Consumers Coalition (VECC)

The OEB held nine in-person community meetings throughout Hydro One's service area in the locations listed below and one province-wide teleconference/webinar. The goals of the meetings were to provide customers with information both on the OEB's rate hearing process and on the specific application filed by Hydro One, and to hear directly from customers about the requested rate increases sought in the current application. The OEB received customer presentations and took questions and comments from participants, which were recorded in writing.

OEB community meetings were held on the following dates and in the following locations:

June 15, 2017	Leamington, Ontario
June 19, 2017	Napanee, Ontario
June 20, 2017	Rockland (Ottawa), Ontario
June 21, 2017	Owen Sound, Ontario
June 22, 2017	Ancaster, Ontario
June 26, 2017	Stouffville, Ontario

June 27, 2017	Dryden, Ontario
June 28, 2017	Sudbury, Ontario
July 12, 2017	Province-wide Webinar
July 13, 2017	Bracebridge, Ontario

The OEB also received more than 3,000 letters of comment from Hydro One customers. The letters have been placed on the record of this case and are publicly available on the OEB's website. Hydro One was required to address the themes raised in these letters of comment. Hydro One addressed these themes during the Presentation Day that was held during this proceeding.⁴

Subsequent OEB Procedural Orders resulted in:

- a) Extensive discovery of Hydro One's pre-filed evidence by way of responses to written interrogatories submitted by intervenors and OEB staff and three days of questioning of Hydro One's witnesses at a technical conference held on March 1, 2 and 5, 2018
- b) Rulings on requests made by Hydro One and OEB staff that certain documents be treated as confidential
- c) The establishment of an OEB-approved Issues List
- d) Guidance from the OEB on the preparation and scope of expert evidence that certain intervenors proposed to file
- e) Rulings on intervenor requests that Hydro One provide complete responses to certain interrogatories

The oral hearing of the application commenced on June 11, 2018 and continued for a total of 11 hearing days, and concluded on June 28, 2018. Hydro One presented a total of 28 individuals in seven witness panels to testify in support of the application. Many undertakings were given to Hydro One during the course of the examination of these witnesses. Written undertaking responses were filed by Hydro One both during and after the oral hearing.

⁴ December 7, 2017.

Anwaatin and OEB staff filed evidence and presented witnesses to support their positions.

Hydro One delivered its written Argument-in-Chief on July 20, 2018. OEB staff delivered its written submission on August 3, 2018. Fifteen intervenors filed written arguments between August 10 and 14, 2018. Hydro One filed its written Reply Argument on August 31, 2018.

OEB staff structured its submission under major topic headings that followed an introductory section. In its Reply Argument, Hydro One substantially followed the argument structure established by OEB staff with some additional headings for topics raised by intervenors in their arguments that were not addressed in the OEB staff submission.

This Decision and Order is organized to substantially follow the OEB-approved Issues List. Following the introductory chapters, this Decision and Order addresses matters in chapters entitled:

- General
- Custom Application
- Outcomes, Scorecard and Incentives
- Distribution System Plan
- Rate Base and Cost of Capital
- Operations Maintenance and Administration Costs (including compensation)
- Revenue Requirement
- Load and Revenue Forecast
- Cost Allocation and Rate Design
- Deferral and Variance Accounts
- Effective Date of Rates

The Decision and Order concludes with the terms of the OEB's Order pertaining to the relief requested by Hydro One.

A complete high level summary of the proceeding, including a listing of hearing participants and witnesses, is found in Appendix 1.

3 DECISION

3.1 GENERAL

3.1.1 OEB Directions from Previous Proceedings (Issue 1)

Issue 1. Has Hydro One responded appropriately to all relevant OEB directions from previous proceedings?

Hydro One provided Table 1 below⁵ in its evidence which lists OEB directions to Hydro One in its previous distribution rates decision⁶ and the evidentiary references in the current application that respond to them. Hydro One stated that there were no other outstanding OEB directives or undertakings from prior proceedings that are relevant to this application.

⁵ Application, Exh A, Tab 2, Sch 2, p. 1, Table 1 Filed: 2017-03-31.

⁶ EB-2013-0416.

Table 1
OEB Directions to Hydro One – Previous Dx Decision

#	OEB Direction	Exhibit Reference
1	File a total factor productivity study of Hydro One's own productivity, including data from 2002 and following years at a minimum.	Exhibit A, Tab 3, Schedule 2
2	File a compensation study similar to the study Hydro One filed in EB-2013-0416 to allow benchmarking to comparable companies.	Exhibit C1, Tab 2, Schedule 1
3	File a comprehensive trend analysis of the vegetation management program showing year over year comparisons in unit costs.	Exhibit B1, Tab 1, Schedule 1
4	File a best practices study, if undertaken, for vegetation management similar to the CN Utility study filed in EB-2009-0096.	Exhibit B1, Tab 1, Schedule 1
5	File an updated depreciation study.	Exhibit C1, Tab 6, Schedule 1
6	File a consolidated Distribution System Plan, with either an Independent third party review of the Plan if conducted, or an explanation of the decision not to conduct such a review.	Exhibit B1, Tab 1, Schedule 1
7	File annual capital in-service additions, with explanations of any variance from approved levels (as required by the OEB Filing Requirements).	Exhibit D1, Tab 1, Schedule 2
8	File an external benchmarking study on the unit cost of the pole replacement program.	Exhibit B1, Tab 1, Schedule 1
9	File an internal trend analysis to show the variability of the unit costs of the pole replacement program year over year.	Exhibit B1, Tab 1, Schedule 1
10	File an external benchmarking study on the unit cost of the station refurbishment program.	Exhibit B1, Tab 1, Schedule 1
11	File an internal trend analysis to show the variability of the unit costs of the station refurbishment program year over year.	Exhibit B1, Tab 1, Schedule 1
12	Report on an updated customer classification review.	Exhibit G1, Tab 2, Schedule 1
13	File a study on Hydro One's miscellaneous service charges, assessing whether the charges reflect underlying costs.	Attachment 1 to Exhibit H1, Tab 2, Schedule 3.

OEB staff and intervenors submitted that Hydro One had responded appropriately to all relevant directions from previous proceedings, subject to any concerns that OEB staff or intervenors were to express about the contents of the above reports in subsequent sections of this Decision and Order.

Hydro One did not include direction from previous acquisition decisions on its list of OEB directions.

Findings

The OEB finds that Hydro One responded appropriately to all OEB directions from previous proceedings with the exception of directions contained in its most recent acquisition approvals. The OEB's findings pertaining to those directions are dealt with under issue 56.

The OEB notes that Hydro One filed a letter in this proceeding⁷ which identified some overlap in the issues in this proceeding and in the recently decided transmission rates decision (transmission decision).⁸ Some portions of that decision are subject to a motion filed with the OEB to review and vary that decision, as well as an appeal to the Divisional Court. One of these portions of the transmission decision is the Tax Savings Determination issue.⁹ By way of background, the OEB had determined in the transmission decision that a portion of the future tax savings resulting from the Government of Ontario's decision to sell its ownership interest in Hydro One Limited by way of an Initial Public Offering (IPO) on October 28, 2015, and subsequent sale of shares, should be applied to reduce Hydro One's revenue requirement for 2017 and 2018. In both its transmission application and the current distribution application, Hydro One's position has been that it does not intend to apply any tax savings resulting from the IPO to reduce Hydro One's distribution revenue requirement.

Hydro One proposed that there should be no re-litigation (i.e. discovery or submissions) of these matters in this distribution proceeding while they are subject to the review motion and the appeal.

The OEB stated in its Decision on Issues List and Interim Rates and Procedural Order No. 2 that it did not intend to have the Tax Savings Determination issue re-litigated in the current proceeding while the motion and appeal are pending. Accordingly, the OEB determined that it would not permit the Tax Savings Determination issue to be reconsidered in this distribution case, pending the outcomes of the Hydro One motion and appeal.

Simultaneously with the issuance of the Decision and Order in this proceeding, the OEB is issuing its decision and order in the Hydro One Tax Savings Determination matter (Tax Savings Motion decision).¹⁰ The Tax Savings Motion decision upholds the original

⁷ November 17, 2017.

⁸ EB-2016-0160.

⁹ As described in *Decision on Issues List and Interim Rates and Procedural Order No. 2*, December 1, 2017.

¹⁰ EB-2018-0269 *Decision and Order* March 7, 2019.

transmission decision findings related to future tax savings. The appeal to the Divisional Court is still pending.

The OEB reiterates that it will not have the matter of the appropriate allocation of the tax savings between shareholders and ratepayers re-litigated in this distribution proceeding. The OEB directs Hydro One to apply the OEB's findings from the Tax Savings Motion decision in this proceeding as outlined in the Order section. The OEB will implement the ultimate outcome of any appeal of the Tax Savings Determination issue, in the event that the appeal process results in a change to the allocation of the tax savings as set out in the Tax Savings Determination.

3.1.2 Community Meetings (Issue 2)

Issue 2. Has Hydro One adequately responded to the customer concerns expressed in the Community Meetings held for this application?

OEB staff noted that the OEB hosted a series of community meetings regarding the application across the province (including a province-wide tele-meeting) as listed below.¹¹

June 15, 2017	Leamington, Ontario	Leamington Kinsmen Recreational Complex
June 19, 2017	Napanee, Ontario	Strathcona Paper Centre
June 20, 2017	Rockland (Ottawa), Ontario	Club Powers, Colombian Hall
June 21, 2017	Owen Sound, Ontario	Harry Lumley Bayshore Community Centre
June 22, 2017	Ancaster, Ontario	Ancaster Rotary Centre
June 26, 2017	Stouffville, Ontario	Royal Canadian Legion – Branch 459
June 27, 2017	Dryden, Ontario	Legion Hall
June 28, 2017	Sudbury, Ontario	Rotary Centre
July 12, 2017	Telemeeting	Province-wide
July 13, 2017	Bracebridge, Ontario	Bracebridge Sportsplex

The OEB staff summary of the community meetings identified three major areas of concern among the attendees:

- The cost of electricity was too high and therefore Hydro One's request for a rate increase should not be approved

¹¹ EB-2017-0049 "OEB Staff Summary of Community Meetings Hydro One Networks Inc. Application for 2018-2022 Distribution Rates," September 7, 2017, p. 1.

- Salaries at Hydro One are too high
- Hydro One has reliability and service capacity issues¹²

OEB staff's overall conclusion was that the application did not adequately address the concerns raised at the community meetings and recommended changes to Hydro One's proposals to deal with these concerns. Some intervenors had similar concerns.

Findings

The OEB finds that Hydro One has not adequately responded to customer concerns. The OEB's findings related to the general area of customer consultation are addressed under Issue 23.

3.1.3 Revenue Requirement Increase (Issue 3)

Issue 3. Is the overall increase in the distribution revenue requirement from 2018 to 2022 reasonable?

Hydro One stated that it followed standard regulatory practice in calculating its revenue requirement. Hydro One provided a comparison of the 2017 revenue requirement proposed in the previous distribution rates application¹³ to the revenue requirement proposed for the 2018 test year in the current application, as shown in Table 2 below:¹⁴

¹² *Ibid*, p. 12.

¹³ EB-2013-0416.

¹⁴ Argument-in-chief of Hydro One Networks Inc., July 20, 2018, p. 20.

Table 2
Hydro One Revenue Requirement Comparison – Previous versus Current Application

\$ millions

Description	2017 OEB Approved	2018 Forecast	2018 vs. 2017 Change (%)
OM&A	593.0	576.7	(1.1)
Depreciation and Amortization	390.2	398.2	0.6
Income Taxes	48.7	65.2	1.2
Return on Capital	435.8	474.0	2.7
Total Revenue Requirement	1,467.6	1,514.2	3.3
Deduct External Revenues and Other	(52.7)	(47.0)*	0.4
Rates Revenue Requirement	1,414.9	1,467.2	3.7
Regulatory Deferral and Variance Accounts Disposition	11.1	8.3**	(0.2)
Rates Revenue Requirement (with Deferral and Variance Accounts)	1,426.0	1,475.5	3.5

* 2018 External Revenue was updated as part of J11.02.

** Regulatory Deferral and Variance Accounts Disposition is updated to reflect Hydro One's revised proposal.

Hydro One stated that its proposed 2018 revenue requirement is the amount it requires to achieve its business objectives and to align customer needs and preferences, responsible stewardship of a safe and reliable system, and impact on rates. Furthermore, Hydro One submitted that its proposed 2018 revenue requirement is a reflection of its commitment to pursuing efficiencies and improved productivity before requesting its customers to pay more.

The revenue requirements for the remaining years of 2019 to 2022 were proposed to be established through a Revenue Cap IR, whereby the revenue for the test year t+1 is equal to the revenue in year t (2018) adjusted annually by a revenue cap index (RCI).

OEB staff and intervenors did not support all elements of Hydro One's application and proposed different levels of reduction to the proposed 2018 test year revenue requirement. It was submitted that the overall increase in revenue requirement is excessive as it rebased in 2018 on an artificially high rate base and adjusted future years' rates on an overly generous basis. It was also argued that the capital spending suggested during the rate plan was excessive. In addition, as discussed in greater detail under Issues 7 and 8, some intervenors argued that the proposed rate adjustment formula will lead to higher rates than are necessary to ensure the safe and reliable operation of Hydro One's distribution system.

Hydro One responded that it has demonstrated that any reduction would, in fact, be to the detriment of customers as it would result in an unsustainable system, with degrading assets. Hydro One also stated that its Application – which is designed to meet the OEB’s and customers’ expectations – should be determined on its merits and according to OEB endorsed criteria.¹⁵

Findings

The OEB finds that the overall increase in the distribution revenue requirement from 2018 to 2022 is not reasonable. The specific findings related to the different components of the revenue requirement are detailed under other issues in this Decision and Order.

3.1.4 Rate and Bill Impacts (Issues 4 and 5)

4. Are the rate and bill impacts in each customer class in each year in the 2018 to 2022 period reasonable?

5. Are Hydro One’s proposed rate impact mitigation measures appropriate and do any of the proposed rate increases require rate smoothing or mitigation beyond what Hydro One has proposed?

Hydro One stated that its applied-for revenue requirement would result in a 3.5% distribution rate increase in 2018 over the 2017 OEB-approved levels and that it is further seeking an additional 3% increase in rates in 2018 due to declines in load which are beyond its control. Hydro One further stated that the average increase over the proposed five-year period is 3.4% per annum and that these revised rate impacts reflect a 0.3% per annum reduction from the original filing in March 2017.¹⁶

Hydro One stated that the total bill impacts across most rate classes resulting from the revenue requirement, regulatory asset disposition and rate harmonization requested in the application are below 10%.

However, Hydro One stated that it has proposed a rate mitigation plan for the following three classes of customers of the recently acquired utilities of Norfolk, Haldimand and

¹⁵ Reply Argument, p. 184.

¹⁶ Argument-in-chief, p. 22.

Woodstock (the Acquired Utilities): (i) street lighting customers, (ii) sentinel light customers and; (iii) unmetered scattered load (USL) customers. Hydro One proposed rate mitigation in the form of a bill credit for the customers within these rate classes to ensure that they will not experience total bill impacts greater than 10%, the mitigation threshold established by the OEB.

Hydro One also proposed rate mitigation in the form of adjustments to the revenue-to-cost ratios for the distributed generation (DGen) customer class to limit total bill impacts to no more than 10% for a typical customer in that class.

OEB staff and some intervenors submitted that the mitigation measures proposed by Hydro One for its distributed generation customers in 2018 and 2019 are appropriate. Submissions with respect to rate mitigation for customers of the Acquired Utilities are addressed under Issue 14.

Findings

The OEB finds that with the adjustments required by this Decision and Order, the revenue required by Hydro One to provide distribution service is reasonable, and consequential rate and bill impacts will also be reasonable. The OEB also finds that Hydro One's rate mitigation plan for the DGen class is reasonable. Rate mitigation for the customers of the Acquired Utilities is addressed in separate sections (Issue 14 and 56).

3.1.5 Indigenous Customer Issues (Issue 6)

6. Does Hydro One's First Nation and Métis Strategy sufficiently address the unique rights and concerns of Indigenous customers with respect to Hydro One's distribution service?

Hydro One stated that it is committed to developing and maintaining positive relationships with First Nations and Métis communities and customers across Ontario. Hydro One further stated that it recognizes the unique rights and interests of Indigenous customers and seeks to work with First Nations and Métis communities in Ontario in the spirit of collaboration, mutual respect and trust and shared responsibility.

Hydro One noted that it provides electricity transmission and distribution services to 85 First Nations communities. Furthermore, approximately 21,700 First Nations customers residing on reserve lands receive service, 88% of which are residential and 12% are general service customers. Transmission and distribution facilities used to provide this service are situated across reserve lands, traditional or treaty lands.

Hydro One stated that the three pillars of its First Nations and Métis Relations Strategy Framework are as follows:

- a) Integration - Improve communication with First Nation and Métis communities and develop programs to ensure their unique interests and concerns are integrated into Hydro One's lines of business and that Hydro One works with communities in a way that recognizes and respects Aboriginal and treaty rights.
- b) Partnership - Develop opportunities to collaborate with First Nations and Métis communities in Ontario through the development of business, technical, knowledge, and advocacy partnerships.
- c) Leadership - Provide opportunities to First Nations and Métis individuals within Hydro One's organization to support the training, development, and promotion of First Nations and Métis employees and future leaders.

Hydro One stated that it is continuing to research and consider industry best practices to benchmark its activities in these three areas and will seek input on, and give consideration to, new strategic approaches to achieve these objectives.¹⁷

Hydro One stated that over the past 18 to 24 months, it has refined its approach as to how it engages with First Nations and Métis communities and that its strategy addresses the unique rights and concerns of Indigenous customers with respect to Hydro One's distribution service as evidenced by: (1) Hydro One's engagement with its First Nations and Métis customers; and (2) Hydro One's initiatives that address concerns expressed by First Nations and Métis customers.¹⁸

During the oral hearing phase of the proceeding, it was announced that Hydro One and Anwaatin Inc. (Anwaatin) had agreed on a settlement proposal to be presented to the OEB with respect to Anwaatin's motion to review and vary the OEB's recent Hydro One transmission decision.¹⁹ The settlement proposal was subsequently accepted by the OEB in a separate proceeding.

Hydro One submitted that the agreement with Anwaatin is a significant achievement as not only is the "pilot project" intended to address reliability concerns in Anwaatin First Nations Communities, but it is also intended to assess whether similar and repeatable

¹⁷ Exh A, Tab 4, Sch. 2, pp. 1-2.

¹⁸ Argument-in-chief, p. 25.

¹⁹ Exhibit K4.4 EB-2017-0335 "Settlement Proposal Anwaatin Inc. Motion to Review and Vary the Ontario Energy Board's Decision on Hydro One Network Inc.'s Transmission Rates in EB-2016-0160," June 15, 2018.

approaches may be used in other remote areas of the Hydro One distribution system that are experiencing poor reliability conditions. Hydro One stated that the maximum total cost of the Anwaatin initiative is \$5 million and any further funding is dependent on the results of the “pilot project” and approval of increases to Hydro One’s capital envelope.²⁰

OEB staff and intervenors commended Hydro One for its development of its First Nations and Métis Relations Strategy Framework and supported the settlement proposal. They noted that the “pilot project” could potentially have learnings to benefit other regions in Hydro One’s service territory, and including it in the distribution capital investment plan was reasonable.

Several intervenors suggested that Hydro One should investigate the implementation of economically justified distributed energy resource (DER) solutions not only in Anwaatin and other Indigenous communities, but other northern communities facing similar reliability issues. It was also suggested that the OEB should direct Hydro One in its next application to explicitly provide evidence with respect to the reliability in, and capital programs for, First Nations communities which it serves.

Findings

The OEB commends Hydro One and Anwaatin for providing an example of how a cooperative approach can result in mutually beneficial outcomes. The OEB encourages both Hydro One and First Nations and Métis groups to continue this approach to achieving an understanding of the concerns and the implementation of solutions.

Given the unique reliability challenges experienced in northern communities, the OEB directs Hydro One, in its next application in which distribution rates are rebased (next rebasing application) to explicitly identify initiatives to address these challenges including other economically justified DER solutions. The question of capital funding for the “pilot project” is addressed under Issue 30.

²⁰ Argument-in-chief, p. 28.

3.2 CUSTOM IR RATE FRAMEWORK

3.2.1 Custom IR Framework based on a Revenue Cap Index (Issue 7)

Issue 7. Is Hydro One's proposed Custom Incentive Rate Methodology, using a Revenue Cap Index, consistent with the OEB's *Rate Handbook*?

Hydro One has proposed a five-year Custom IR plan with a revenue requirement, and the rates to recover it, to be adjusted annually through a revenue cap index (RCI) plan. The basic formula for the proposed RCI is expressed as:

$$RCI = I - X + C$$

where:

- *I* would be the Inflation Factor, as determined annually by the OEB.
- *X* would be the Productivity Factor that is equal to the sum of a Custom Industry Total Factor Productivity (TFP²¹) measure and a Custom Productivity Stretch Factor.
- *C* would be a Custom Capital Factor (capital factor), determined to recover the incremental revenue in each test year necessary to support Hydro One's proposed Distribution System Plan (DSP), beyond the amount of revenue recovered in rates.²²

Hydro One submitted that its proposed Custom IR methodology is consistent with the OEB's *Rate Handbook*.²³

Hydro One noted that the design is similar to Toronto Hydro Electric System Limited's (Toronto Hydro's) current Custom IR plan. The key difference is that Toronto Hydro's plan adjusts rates each year, and is therefore called a price cap index (PCI), whereas Hydro One's proposed RCI would apply to the overall revenue requirement.

OEB staff, CCC, and SEC submitted that Hydro One's proposed RCI was consistent with options in the *Rate Handbook*, but made submissions on details of the proposed

²¹ Total Factor Productivity (TFP) is the ratio of the rate of change of all outputs (products and services) of a firm relative to the rate of change of all inputs (capital investments, materials and labour) used to produce the output products and services.

²² Exhibit A/3/2/p. 2

²³ Hydro One, Final Argument, July 20, 2018, p. 30.

revenue cap. PWU supported Hydro One's proposed revenue cap plan.²⁴ AMPCO agreed with the flexibility of the proposed RCI, but made submissions on some of the plan elements.²⁵

BOMA questioned and opposed the proposed revenue cap, noting that the Rate Handbook does not identify this as a rate adjustment option.²⁶

Energy Probe submitted "that the proposed Revenue Cap IR transfers more of the load risk from shareholders to ratepayers than Price Cap" and that the proposed plan does not provide any appreciable benefits to customers. Energy Probe submitted that the revenue cap proposal should be rejected.

Hydro One noted the agreement of OEB staff, SEC, PWU, CCC and AMPCO with the overall "revenue cap" approach. Hydro One submitted that BOMA misread the Rate Handbook and noted that the Rate Handbook further states that "A Custom IR application is by its very nature custom, and therefore no specific filing requirements have been established."²⁷ Hydro One submitted that Energy Probe's opposition was based on a hypothetical comparison of revenue cap and price cap options and ignored the evidence on the record.²⁸

Findings

The OEB approves a Custom IR framework with a five-year term and the Revenue Cap Index formula proposed by Hydro One ($RCI = I - X + C$).

The OEB's Rate Handbook sets out the criteria for assessing the adequacy of a Custom IR framework.²⁹ The features of the framework must contribute to the achievement of the OEB's Renewed Regulatory Framework (RRF) goals and meet a number of requirements, as summarized below:

- Term: A Custom IR framework must have a minimum term of five years.

²⁴ PWU, Submission, August 9, 2018, p. 10.

²⁵ AMPCO, Submission, August 9, 2018, p. 4.

²⁶ BOMA, Submission, August 9, 2018, p. 2.

²⁷ Hydro One Final Argument, *op. cit.*, p. 21.

²⁸ *Ibid.*, pp. 21-22.

²⁹ Rate Handbook, pp. 25-28.

- Index for the Annual Rate Adjustment: The annual rate adjustment must be based on a Custom Index supported by empirical evidence (using third party and/or internal resources) that can be tested.

The index must be informed by an analysis of the trade-offs between capital and operating costs, which may be presented through a five-year forecast of operating and capital costs and volumes.

- Benchmarking: A Custom IR application must include both internal and external benchmarking.
- Performance Metrics: A Custom IR framework should have additional performance metrics, beyond those already in place for electricity distributors, so that expected outcomes can be monitored.
- Updates: Updates throughout the term should only be for exceptional circumstances. A mechanism, such as a Z-factor, is acceptable for cost recovery of unforeseen events.
- Protecting Customers: Customers will receive benefits from the Custom Index for expected productivity improvements. A Custom IR framework must also include one or more mechanisms to protect customers from excessive utility earnings.

The OEB has concluded that Hydro One's proposed Custom IR framework has sufficiently met the requirements, subject to the amendments set out in this Decision and Order. The proposed framework includes:

- A five-year term.
- A Custom Index developed based on the empirical analysis by Power System Engineering (PSE).
- In addition to the benchmarking done by the OEB for all electricity distributors, Hydro One has filed a number of program-based benchmarking studies. The PSE Report also included an econometric benchmarking analysis for the purpose of assessing a stretch factor.
- Additional performance scorecard measures.

- A number of updates throughout the term, some of which are focussed on the unique issue of incorporating three acquired utilities³⁰ (Acquired Utilities) into Hydro One's revenue requirement.
- A Z-factor mechanism for unforeseen events.
- An earnings sharing mechanism to provide additional protection for customers.

Further details for each of these requirements are discussed in the sections that follow.

Five-year Term

Hydro One has proposed a five-year term for rates from 2018 to 2022. The Rate Handbook states that if a Custom IR application does not meet all of the requirements, the OEB may impose a reduced term.

While BOMA and Energy Probe opposed the revenue cap Custom IR proposal, no party argued that the term should be shortened or lengthened.

Findings

The OEB finds that Hydro One has sufficiently met the requirements of a Custom IR application, and a five-year term is approved. The use of an asymmetrical earnings sharing mechanism will provide protection for customers if cost and load forecasts differ from actual results.

For Hydro One's last Custom IR application,³¹ the OEB concluded that Hydro One's application was insufficient as a Custom IR application under the OEB's RRF,³² and a five-year term was denied. The OEB found that Hydro One had inadequate productivity and efficiency incentives that limited prospects for continuous improvement, and weak benchmarking. This current application has proposed a Custom Index to provide immediate benefits to customers from expected productivity improvements, and the program-based benchmarking has improved. The OEB has determined that the Custom IR framework proposed by Hydro One is adequate to warrant approval of a five-year term, subject to the amendments set out in this Decision and Order.

³⁰ Norfolk, Haldimand and Woodstock.

³¹ EB-2013-0416.

³² EB-2013-0416, p. 8.

Revenue Cap

Hydro One proposes that the annual rate escalation be determined by a revenue cap index (RCI), where RCI growth is driven by an inflation factor, less a productivity factor of zero and no stretch factor, and a capital factor.

PWU supported Hydro One's proposed revenue cap plan, and AMPCO agreed with the flexibility of the proposed RCI, but made submissions on some of the plan elements.

OEB staff submitted that the use of the term "revenue cap" is misleading, as Hydro One's proposed Custom IR plan does not "cap" the revenues as would a traditional revenue cap formula. OEB staff stated that the proposal is a revenue *requirement* index rather than a revenue *cap* index.

CCC, SEC and VECC concurred with OEB staff's submission on this characterization of Hydro One's Custom IR plan.

While SEC stated its preference for a price cap approach, it stated that the revenue cap was a reasonable approach to Hydro One's plan for integration of the assets, costs and customers of the Acquired Utilities in 2021. BOMA and Energy Probe opposed the proposed revenue cap.

In reply, Hydro One agreed with OEB staff's submission that its proposal "may be described as a "revenue requirement" index, ... [but that its] overall proposal which includes adjusting rates annually to account for changes in the load forecast effectively results in a revenue cap."³³

Hydro One submitted that BOMA misread the Rate Handbook and noted that "[t]he Handbook further states that "A Custom IR application is by its very nature custom, and therefore no specific filing requirements have been established."³⁴ Hydro One submitted that Energy Probe's opposition was based on a hypothetical comparison of revenue cap and price cap options and ignored the evidence on the record.³⁵

Findings

The OEB accepts Hydro One's proposed RCI approach for adjusting rates each year.

The OEB agrees with OEB staff that what Hydro One has proposed is not a typical revenue cap mechanism in that actual revenue will not be capped. The revenue

³³ Hydro One Reply Argument, *op. cit.*, p. 19.

³⁴ *Ibid.*, p. 21.

³⁵ *Ibid.*, pp. 21-22.

requirement will be adjusted each year by the RCI, and rates are then calculated based on a load and customer count forecast by customer class. To the extent that actual customer counts and load differ from the approved forecast, actual revenues will differ from the RCI-adjusted revenue requirement.

Some parties have argued that an RCI approach is not available to Hydro One. The OEB does not agree. Under the Custom IR option, it is open to a utility to propose options as long as all requirements of the Custom IR framework have been met. It is, by its own definition, a custom approach to rate-setting. The OEB finds that Hydro One's proposed RCI is an acceptable approach for adjusting rates to incent productivity and efficiency improvements.

Hydro One has argued that it proposed the RCI approach to facilitate the consolidation of the three Acquired Utilities (Norfolk, Haldimand and Woodstock) into its revenue requirement. The OEB agrees that this consolidation would have been more straightforward under the RCI approach, but a consolidation could also have been done under other rate-setting methods. Given how small the Acquired Utilities are in comparison to the rest of Hydro One, the consolidation would not have been a sufficient reason in and of itself to use an RCI had the OEB not been satisfied that it provides the appropriate productivity and efficiency incentives. Although the OEB has found (under Issue 56) that the revenue requirement for the Acquired Utilities will not be consolidated with the rest of Hydro One's revenue requirement in 2021, the OEB accepts Hydro One's proposed approach to the RCI.

Growth Factor

OEB staff was generally in agreement with the revenue cap approach, but argued that a growth factor should be included in the formula. OEB staff submitted that over the five-year term the forecasted capital expenditures and additions dominate the increases in Hydro One's proposed revenue requirement, while OM&A may be understated because it does not factor in growth in customer numbers.³⁶

OEB staff's consultant, Pacific Economics Group Research LLC (PEG), pointed out during testimony that explicitly adding in a growth factor, and adjusting the Custom Capital factor, would allow a distinction between non-discretionary growth-related capital additions and other capital expenditures.³⁷

³⁶ OEB staff, op. cit., pp. 26-30.

³⁷ Tr., Vol. 11 (June 28, 2018), p. 204/l. 5 to p. 208/l. 7.

Hydro One disagreed that a growth factor was appropriate because growth was already reflected in the forecast for capital expenditures, and referred to VECC's submission and an interrogatory response by OEB staff's consultant. Hydro One submitted that it was not clear what form the growth adjustment would take, and that any adjustment mechanism was untested. Hydro One submitted that its proposed mechanism should be approved without a growth factor.³⁸

Findings

The OEB will not incorporate a growth factor in the formula. The OEB has determined there is insufficient evidence on the record of the impact on rates of including a growth factor. This would not be a straightforward mechanism to develop because Hydro One's growth forecast shows an increase in the number of customers and a decrease in both kilowatt-hour consumption and demand (kilowatt) sales over the term.³⁹

3.2.2 Inflation, Productivity and Stretch Factors for Revenue Cap Index (Issue 8)

Issue 8. Is the proposed industry-specific inflation factor, and the proposed custom productivity factor, appropriate?

Inflation Factor

Hydro One proposes to use the industry-specific inflation factor set by the OEB. This is calculated each year by the OEB for use by distributors on the Price Cap Incentive Rate-setting (Price Cap IR) option. It is a two-factor inflation factor weighted 30% on a labour sub-index comprised of the average weekly earnings for workers in Ontario, and 70% on the Gross Domestic Product Implicit Price Index Final Domestic Demand:

$$\text{Inflation Factor (IPI)} = 0.70 \times \Delta \text{GDPIPI(FDD)} + 0.30 \times \Delta \text{AWE(Ontario)}$$

where:

- GDPIPI(FDD) is the annual Implicit Price Index for (national) Gross Domestic Product.
- AWE(Ontario) is the annual Average Weekly Earnings for Ontario, all businesses except unclassified, including overtime.

³⁸ Hydro One, Reply Argument, op. cit., pp. 27-29.

³⁹ Exhibit Q-1-1, Distribution Business Plan, December 8, 2017, page 22.

These statistics are measured and published by Statistics Canada. The OEB computes and publishes the IPI annually.

OEB staff's consultant, PEG, suggested that Average Hourly Earnings (AHE) could be a potential substitute for AWE.⁴⁰ OEB staff submitted that any consideration to change the calculation should be left to a generic policy review. OEB staff's submission was supported by SEC.⁴¹

OEB staff and CME supported the proposed inflation measure. SEC stated that its preference was for GDP-IPI as a single-factor inflation measure, believing that the two-factor inflation measure is an "unnecessary complication", but accepted the two-factor inflation index as reasonable.⁴²

VECC proposed the Consumer Price Index (CPI) as the inflation factor, stating that it has no real difference from the OEB's factor.⁴³

In reply, Hydro One concurred with the OEB staff submission that any revision to the IPI methodology, such as with respect to an alternative labour price index like AHE, should be considered in a generic process. Hydro One reiterated its proposal that the current two-factor IPI, as issued by the OEB, be used.⁴⁴

Findings

The OEB accepts Hydro One's proposal to use the inflation factor set by the OEB each year. Its mix of labour and non-labour components takes into consideration both Ontario input price fluctuations and an economy-wide measure. While some parties proposed other options, such as CPI or a flat 2% inflation rate, no party argued that the OEB's annually calculated inflation factor was an unreasonable option. The number will be readily available and straightforward to apply.

Productivity and Stretch Factors

For the purposes of the RCI, Hydro One proposed a productivity factor of 0% and a stretch factor of 0.45%. In support of its proposal, Hydro One submitted a report by

⁴⁰ *IRM Design for Hydro One Networks Inc.* Exhibit M1/pp. 11-12, and Transcript, Vol. 11 (June 28, 2018), p. 215/ll. 24-28.

⁴¹ SEC, *op. cit.*, p. 13.

⁴² *Ibid.*

⁴³ VECC Submission, August 8, 2018, pp. 5-6.

⁴⁴ Hydro One Reply Argument, *op. cit.*, p. 23.

Power System Engineering (PSE)⁴⁵ analyzing the total factor productivity (TFP) of Hydro One and the Ontario industry. The purpose of PSE's report was to measure the TFP for the electricity distribution operations of Hydro One and for similar utilities in North America. The OEB had directed Hydro One to do such a study in its previous decision.⁴⁶ PSE's report also included a total cost benchmarking study comparing Hydro One to a comparator group of U.S. distribution utilities, including Rural Electrical Cooperatives.

OEB staff noted that⁴⁷ nearly all IRM plans adopted in Ontario for both electricity and natural gas since 2000 have explicitly included both the base productivity factor and stretch factor, which are combined into a single X-factor. The productivity factor represents the long-run historical TFP trend in an industry. The stretch factor represents a consumer productivity dividend – a sharing of the additional productivity that a firm is expected to realize under the multi-year plan. A stretch factor can motivate a firm to consciously attempt to improve its performance relative to the industry and peer firms.

PSE recommended that the productivity for Hydro One be set no higher than 0%, and initially recommended a stretch factor no higher than 0.6%. This was updated to a stretch factor no higher than 0.45% once data from 2016 audited financial results was incorporated. PSE noted “the upward trajectory of Hydro One's TFP trend is contrasted with the recent downward TFP trend of the rest of the Ontario industry”.

OEB staff filed evidence by PEG.⁴⁸ PEG's report provided a critique of PSE's productivity and benchmarking evidence, provided results using alternative methods, and discussed features of Hydro One's Custom IR proposal. PEG expressed certain concerns with technical details of PSE's methodologies and attempted to improve on these in its report.⁴⁹ PEG's analysis found that the TFP trend for electricity distribution in Ontario is “fairly close to zero” and therefore a 0% productivity factor is reasonable. PEG found that based on its total cost forecast model, Hydro One's cost performance was improving between 2014 and 2016, continuing to improve in 2017 and 2018, and forecast to improve over the plan term from 2019 to 2022. PEG indicated that a 0.45% stretch factor seems reasonable for Hydro One.⁵⁰

⁴⁵ *Total Factor Productivity Study of the Electric Distribution Functions of Hydro One and the Ontario Industry*, Exhibit A-3-2, Attachment 2.

⁴⁶ EB-2013-0416.

⁴⁷ OEB staff, *op. cit.*, pp. 20-21.

⁴⁸ Exhibit M1.

⁴⁹ Exhibit M1, pp. 2-3, 11-17, and Transcript, Col. 11 (June 28, 2018), p.185x/l. 1 to p.187x/l.17.

⁵⁰ Exhibit M1, page 6.

Most intervenors and OEB staff agreed that the productivity factor should be zero, largely relying on the work of PEG. For the stretch factor, most intervenors and OEB staff agreed that 0.45% was an appropriate starting point. OEB staff concurred with Hydro One's proposal to hold the 0.45% stretch factor constant during the five-year plan term. Several intervenors submitted that the stretch factor should be changed throughout the term depending on Hydro One's cost performance.⁵¹ VECC argued that customers should not face rate increases above the rate of inflation, and the proposed stretch factor would not achieve this result.

Hydro One noted that the OEB's letter⁵² setting out updated stretch factor assignments for 2018 found that Hydro One should be moved from cohort 5 (0.6% stretch factor) to cohort 4 (0.45% stretch factor) because of its improved cost performance.⁵³

Hydro One further noted that while the expert witnesses PSE, for Hydro One, and PEG for OEB staff, had technical differences,⁵⁴ the similarities in the approaches and overall conclusions outweighed the differences pertinent to this application. Hydro One agreed with OEB staff that the technical differences would be better addressed in another forum, possibly in consideration of the next generation of a generic rate-setting approach for all Ontario electricity distributors.

One issue of concern raised by PEG and OEB staff was the use by PSE of service area as a business condition variable for the benchmarking analysis. PEG highlighted a threshold issue of "whether the territory is the area which the utility must stand ready to serve if demand arises or the (often much smaller) area it actually serves".⁵⁵ OEB staff noted that "Hydro One is claiming huge unserved areas of the province as its service territory in spite of the fact that there is no electrification and no likelihood of electrification in the foreseeable future". OEB staff submitted that a better parameter to use would be density expressed as customers per km of line. OEB staff however, agreed with PEG's assessment that there is not enough information to suggest a stretch factor other than 0.45%. OEB staff submitted that Hydro One should be directed to improve its information on its actual served territory. QMA supported OEB staff's submission.⁵⁶

⁵¹ SEC, *op. cit.*, pp. 15-16. CCC, *op. cit.*, p. 8. CME, *op. cit.*, p. 7. The OEB assesses the cost performance of all electricity distributors each year and publishes a report.

⁵² September 14, 2017.

⁵³ Hydro One, Final Argument, *op. cit.*, pp. 36-37.

⁵⁴ *Ibid.*, p. 19, referencing OEB staff submission, August 3, 2018, pp. 17-18.

⁵⁵ Exhibit M1, page 23.

⁵⁶ QMA, *op. cit.*, pp. 7-8.

PSE and Hydro One questioned the accuracy of the reporting and record-keeping data on circuit-kilometres of line reported to the OEB; in particular, whether distributors were consistent on whether secondary lines were reported as well as primary lines. This data concern was a factor in why PSE used service area as a business condition variable. It was noted that PSE relied on the GIS mapping data of a third-party vendor, Platts.

Findings

The OEB accepts Hydro One's proposal for a productivity factor of 0% during the term of the Custom IR plan. There were two expert reports filed in evidence in this proceeding on the productivity factor; one from PSE for Hydro One and another from PEG for OEB staff. The approaches for determining an appropriate productivity factor were similar and both experts recommended a productivity factor of 0%. While there was discussion of the relative merits of the methodologies by PSE and PEG, the concluding recommendations were the same. The OEB is therefore not providing findings on the merits of each methodology, except as noted below.

The OEB finds that a stretch factor of 0.45% is appropriate during the term. Both PEG and PSE concluded that 0.45% was a reasonable stretch factor, and most parties agreed. In setting the stretch factor, the OEB is taking into consideration the improvement in cost performance that PEG identified for recent years. PEG also noted that based on Hydro One's forecast costs, the improvement trend would continue.

Consistent with the OEB's approach to minimizing updates for a Custom IR framework, the stretch factor will be held constant throughout the term.

There are large areas of the province in which there is no electricity distribution system and the OEB agrees that this unserved service area is an issue when using service area as a business condition variable for benchmarking. The extent to which this is also an issue for the comparator distributors used by PSE, which included U.S. investor-owned utilities and rural electric cooperatives, is unknown. There is also no evidence on the record on the accuracy of reported data for circuit-kilometres of line.

Concerns have been expressed by parties about both potential variables, service area and density. The OEB has the benefit of two different econometric analyses, one that used service area and the other circuit-kilometres of line. Both of these reports recommended a productivity factor of 0% and a stretch factor of 0.45%. It is not necessary at this time for the OEB to make a determination on the appropriate business condition variables to use for TFP and benchmarking analyses.

3.2.3 Capital Factor (Issue 9)

Issue 9. Are the values for the proposed custom capital factor appropriate?

Hydro One has proposed a capital factor to provide incremental funding for new capital investments during the term. The capital factor was modelled based on a similar factor approved for Toronto Hydro in its 2015 Custom IR rate proceeding.⁵⁷ The capital factor calculates a percentage change in the revenue requirement attributable to new capital investment that is not being funded through the inflation less expected productivity (I - X) adjustment. The calculation includes depreciation, return on equity, return on debt and taxes attributable to new capital investment placed in-service for 2019 to 2022 of the Custom IR term.

For Hydro One's proposed capital factor the revenue requirement would increase by the following percentages each year to provide funding for incremental capital,⁵⁸ in addition to the inflation less expected productivity (I - X) adjustment:

Table 3
Hydro One Proposed Capital Factor

	2019	2020	2021	2022
Capital Factor	2.32%	2.21%	3.14%	1.69%

Hydro One stated that the capital factor is required in order to ensure that it can invest in its capital as required by the DSP, and in order to meet customer expectations in relation to reliability.

PWU supported Hydro One's proposed capital factor.⁵⁹

AMPCO did not oppose the proposed capital factor, but submitted that if there is an application update for 2021, the capital factor should be reviewed and updated. The update would be based on the variance between actual versus forecasted capital spending during the first three years of the plan (i.e., 2018-2020).⁶⁰ Similarly, CCC

⁵⁷ EB-2014-0116.

⁵⁸ Letter filed by Hydro One on the Hydro One Accountability Act, October 26, 2018, page 6.

⁵⁹ PWU, *op. cit.*, p. 10.

⁶⁰ AMPCO, *op. cit.*, pp. 5-6.

submitted that the OEB should approve a capital factor for the 2018-2020 period, with Hydro One reporting on the achieved results to set the capital factor for 2021 and 2022.⁶¹

VECC was opposed to the capital factor, submitting that it is “not consistent with the principles of incentive rate making and does not follow the intent of the RRFE framework.”⁶² BOMA also expressed concerns regarding the capital factor, submitting that it lessened the incentive to impose discipline on capital spending, and was more permissive than the OEB’s IRM and incremental capital module (ICM) framework.⁶³

CME submitted that the working capital portion should be removed from the rate base calculation used for determining the capital factor. CME argued that the return on debt, return on equity and income taxes associated with the working capital allowance component of rate base have nothing to do with the capital expenditures and additions that result from the DSP.⁶⁴

Hydro One submitted that its large capital requirements on an on-going basis preclude it from the OEB’s traditional Price Cap IR mechanism, referring to the Rate Handbook, the RRFE Report and related OEB documents on capital funding mechanisms.⁶⁵

Hydro One disagreed with CME that working capital should not be included in the calculation of the capital factor because the inclusion of working capital:

- is consistent with prior decisions⁶⁶
- represents a prudently incurred cost
- allows for the integration of the additional working capital requirements of the Acquired Utilities

Findings

The OEB approves the approach to the capital factor as proposed by Hydro One, but imposes an additional 0.15% stretch factor to be subtracted from the calculated capital factor. This is in addition to the 0.45% stretch factor applied to the revenue requirement

⁶¹ CCC, *op. cit.*, pp. 8-9.

⁶² VECC, *op. cit.*, p. 8.

⁶³ BOMA, *op. cit.*, pp. 6-8.

⁶⁴ CME, *op. cit.*, pp. 8-9.

⁶⁵ Hydro One, Reply Argument, *op. cit.*, pp. 30-32.

⁶⁶ Toronto Hydro-Electric System Limited, Decision and Order EB-2014-0116, December 29, 2015.

and the reductions to the capital program discussed under Issue 30. Hydro One is directed to recalculate the capital factor to reflect the OEB's findings on its capital program and to include the incremental stretch factor.

Hydro One has argued that the 0.45% stretch factor inherent in the $(I - X)$ adjustment is applied to the revenue requirement, and therefore applies to both OM&A and capital. The difference between the treatment of OM&A and capital with Hydro One's proposal is that funding for OM&A is not based on a forecast of OM&A costs. For OM&A, Hydro One is expected to manage within an increase of less than inflation $(I - X)$ each year, regardless of its forecast costs. This is to incent the company to find productivity improvements. For capital, however, Hydro One has forecast capital expenditures for each year of the term, and is seeking funding for any incremental capital not funded by the $(I - X)$ adjustment. The rate base from these forecast capital expenditures is increasing by more than inflation.

Hydro One has said that it has developed productivity initiatives and embedded these in its business plan for both OM&A and capital, with respective managers accountable for delivering the expected savings.⁶⁷ Hydro One provided a governance document⁶⁸ that explains the process for tracking and reporting on these productivity initiatives. For capital, the initiatives included Move to Mobile, Procurement and Telematics for a total of \$184.7 million of expected savings from 2018 to 2022, which is only 5.2% of the total proposed capital expenditures of \$3,571.3 million.⁶⁹

The OEB agrees that this process of defining, executing and reporting on productivity initiatives is an enhancement to Hydro One's planning. The OEB expects Hydro One to stretch itself more to find additional initiatives and to consider new approaches to its business. The OEB is therefore imposing an additional stretch factor for the capital factor of 0.15% to incent further productivity improvements throughout the term, and to provide customers the benefit from these additional improvements upfront.

In imposing this stretch factor, the OEB also recognizes the argument made by intervenors that for the last rate framework term, Hydro One overspent on in-service capital by \$122.5 million, approximately 6.2% more than approved.⁷⁰ The OEB is approving the inclusion of this capital in the 2018 rate base because it is appropriate for a distributor to reprioritize work to meet changing circumstances. However, in

⁶⁷ Exhibit B1-1-1, DSP Section 1.5, page 2 and Exhibit B1-1-1 DSP Section 1.1, page 10.

⁶⁸ Exhibit B1-1-1 Section 1.4 Attachment.

⁶⁹ Letter from Hydro One, re: Hydro One Accountability Act, October 26, 2018, page 5.

⁷⁰ Tr. Volume 6 page 134.

reprioritizing work, Hydro One should make every effort to stay within its approved spending envelope.

The OEB finds that the calculation of the capital factor will not include a component for working capital in rate base. The capital factor provides funding for capital expenditures not funded through the (I – X) adjustment, and the OEB has determined that providing additional funding for working capital is inappropriate in this context. The OEB notes that the Rate Handbook expressly identifies the working capital allowance as an element the OEB expects will not be explicitly updated as part of annual update applications.⁷¹ Furthermore, the working capital allowance is already implicitly increased annually through the (I – X) adjustment.

PEG expressed concerns that with the capital factor the “Company is perversely incented to spend excessive amounts on capital to contain OM&A expenses”.⁷² PEG recommended that a “materiality threshold and dead zone” be added to the capital factor. The OEB has adopted a materiality threshold and 10% dead zone for the incremental capital module (ICM) available to distributors on the Price Cap IR option. An ICM is a different mechanism than the proposed capital factor, and there is no detailed evidence on how a materiality threshold and dead zone would be incorporated into a capital factor. The OEB will therefore not adopt this specific approach. However, the OEB has taken this recommendation into consideration in the adoption of the incremental stretch factor that will apply to the capital factor.

3.2.4 Program-Based Cost, Productivity and Benchmarking Studies (Issues 10, 11 and 12)

Issue 10. Are the program-based cost, productivity and benchmarking studies filed by Hydro One appropriate?

Issue 11. Are the results of the studies sufficient to guide Hydro One’s plans to achieve the desired outcomes to the benefit of ratepayers?

Issue 12. Do these studies align with each other and with Hydro One’s overall custom IR Plan?

⁷¹ Rate Handbook, *op. cit.*, page 26.

⁷² Exhibit M1, page 6.

Hydro One submitted a number of program-based benchmarking studies as follows:

- vegetation management by CN Utility
- new vegetation management program by ClearPath
- pole replacement and station refurbishment by Navigant
- Information Technology (IT) budget assessment study by Gartner.

These benchmarking studies were filed in support of Hydro One's Distribution System Plan (DSP), and were tested during the proceeding. In its Argument-in-Chief, Hydro One submitted that these studies, along with PSE's total cost benchmarking, informed it on its performance relative to peers and hence the proposed stretch factor.

Hydro One submitted that it had appropriately considered these studies and that they had assisted it in its planning process with independent reviews of its largest non-demand work programs and peer group comparisons. Hydro One submitted that each of the Navigant, CN Utility and Gartner studies found that Hydro One's performance is in line with its peers.⁷³

OEB staff and some intervenors commented that each consultant has reasonably followed accepted approaches for its study. OEB staff submitted; however, that it is not possible to identify the overall impact of these studies on the proposed Custom IR plan and on the revenue requirement for which Hydro One is requesting approval. This was due to the fact that these more granular benchmarking studies deal with specific capital and operational programs which are only portions of Hydro One's total portfolio. OEB staff also submitted that it was not clear how the results of these detailed studies had informed strategic decisions by the Board of Directors or senior executives on Hydro One's overall capital investment plan and the proposed Custom IR rate adjustment plan.⁷⁴

VECC submitted that it was generally supportive of the activity and program benchmarking studies filed by Hydro One, but agreed with OEB staff's submission that it is difficult to ascertain the linkage between these initiatives and rates. VECC submitted that Hydro One should more clearly demonstrate the relationship to show outcomes and resulting efficiencies, even during the 2018-2022 rate plan.⁷⁵

⁷³ Argument-in-Chief, *op. cit.*, pp. 39-40.

⁷⁴ OEB staff, *op. cit.*, pp. 31-34.

⁷⁵ VECC, *op. cit.*, p. 12.

CME submitted that Hydro One should be required to report in its next rebasing application on whether the outcomes from the program-based benchmarking studies have been realized.⁷⁶

BOMA was critical of certain benchmarking studies and submitted that they were “very different, program specific, and do not align with each other.”⁷⁷

Hydro One was critical of the submissions of OEB staff and some intervenors. Hydro One submitted that there was ample evidence on the record on how the results of each benchmarking study were implemented for the DSP and for specific capital and operating programs. Furthermore, Hydro One noted that its benchmarking studies were directed by the OEB in the last distribution rates decision, and Hydro One was responding to those OEB directions. Hydro One also submitted that the application included a total cost benchmarking study as well as a total factor productivity analysis. Hydro One stated:

Regarding the impact on the revenue requirement, where there is an impact as a result of a particular benchmarking study, that impact is reflected in the costs of the particular program the study was looking at. However, for many of the benchmarking study conclusions and recommendations, there will not be a revenue requirement impact. Indeed, the purpose of benchmarking studies is not to change the revenue requirement being sought by Hydro One. Rather, the purpose is to examine how Hydro One completes certain work and compare Hydro One’s performance to its peers.⁷⁸

Findings

Previously in this Decision and Order, the OEB determined that Hydro One’s proposed Custom IR framework meets the requirements the OEB set out in the Rate Handbook. The OEB found that benchmarking was weak in Hydro One’s last Custom IR application. This application improved on the availability of benchmarking for some key programs such as vegetation management, pole replacement, station refurbishment and IT, and this is a positive step forward. The OEB has made its specific findings on these programs in the appropriate OM&A or capital sections (Sections 3.4 and 3.6).

⁷⁶ CME, *op. cit.*, p. 11.

⁷⁷ BOMA, *op. cit.*, p. 38.

⁷⁸ Hydro One, Reply Argument, *op. cit.*, pp. 33-34.

The OEB expects that for Hydro One's next rebasing application, Hydro One will continue with its current benchmarking, and expand it to include other capital programs and administration functions such as billing, call centre and corporate costs. Any programs for which there is a benchmarking study must specifically state how Hydro One has reflected the results of the study in the program plans.

The OEB requires Hydro One to file information in its next rebasing application for vegetation management, pole replacement, station refurbishment and IT, reporting on the extent to which the projected outcomes from each of the benchmarking studies considered in this application have been realized.

3.2.5 Annual Updates (Issue 13)

Issue 13. Are the annual updates proposed by Hydro One appropriate?

Hydro One has proposed that its annual update to the Custom IR for the years 2019 and 2020 include:

- A calculation of the revised revenue requirement by applying the RCI.
- The derivation of new rates using the load forecast and cost allocation approved in this application.
- An update of Retail Transmission Service Rates to reflect costs to Hydro One for transmission services.
- The review and disposition of Group 1 deferral and variance accounts, as necessary.

In 2021, Hydro One proposes to integrate the customers in the legacy services areas of the Acquired Utilities, and file rate applications for 2021 and 2022 with the following updates:

- A calculation of the revised revenue requirement by applying the RCI and adding the revenue requirement for the Acquired Utilities.
- An update to Retail Transmission Service rates and the review and disposition of Group 1 deferral and variance accounts, as necessary.
- An update of the load forecast for use in cost allocation and rate design for 2021 and 2022.

- An update of the cost of capital parameters based on the OEB's deemed parameters for short-term debt and ROE.
 - Hydro One's application does not specifically explain the treatment for long-term debt as part of the 2021 update, though long-term debt is one of the cost of capital parameters.
- Revised capital factors for 2021 and 2022 based on the updated load forecast and cost of capital parameters.⁷⁹

OEB staff noted that annual rate applications have been approved for Custom IR plans for other natural gas and electricity distributors. However, the proposed adjustments related to the Acquired Utilities and updates to the cost of capital, load forecast and cost allocation are unique to Hydro One's application.

OEB staff's preferred option was to allow for the integration of the Acquired Utilities, but to use the cost of capital as approved for 2018, and the 2021 load forecast as approved in this application. OEB staff submitted that review of the 2021 application as proposed by Hydro One, with the cost of capital, load forecast, and cost allocation updates would be lengthier and more involved.⁸⁰

AMPCO, CCC, CME, SEC and VECC all submitted that there is no need to update the load forecast and cost of capital parameters for 2021, and to do so is contrary to the Rate Handbook. BOMA also did not agree with updating the cost of capital parameters, but submitted that there should be an update on productivity initiatives and the savings from executed productivity projects.⁸¹

Hydro One argued that updating the cost of capital parameters and load forecast is necessary in 2021 so that rates for the customers of the Acquired Utilities reflect the cost to serve, as directed by the OEB. Hydro One submitted that the integration of the Acquired Utilities is an exceptional circumstance as contemplated in the Rate Handbook.

⁷⁹ Hydro One, Final Argument, *op. cit.*, pp. 40-41.

⁸⁰ OEB staff, *op. cit.*, pp. 35-39.

⁸¹ BOMA, *op. cit.*, p. 38.

Findings

The OEB finds that the cost of capital and the load forecast will not be updated for 2021 and 2022 rates. As noted by most intervenors, this is contrary to the Rate Handbook.⁸² While the integration of the Acquired Utilities may be unique, in that this is the first time there will be integration of an acquired utility during a Custom IR term, the OEB does not find this to be an exceptional reason to permit the proposed update.

Given the OEB's findings under Issue 56, there is no need for the OEB to make a finding on the cost of capital parameters for the Acquired Utilities in this proceeding. Rates for the Acquired Utilities will be based on the Price Cap IR approach once the deferred rebasing period concludes.

Hydro One has provided a load forecast for the five-year term, and this will be used for the setting of rates. The five-year customer count forecast, as updated as a result of this Decision and Order, will also be used for the whole five-year term. Given that the load forecast and cost of capital will not be updated, and the revenue requirement for the Acquired Utilities will not be consolidated in 2021, there is no need to update the cost allocation model during the plan term.

3.2.6 Integration of Acquired Utilities (Issue 14)

Issue 14. Is Hydro One's proposed integration of the Acquired Utilities in 2021 appropriate?

Hydro One proposed to integrate the customers in the legacy service areas of the Acquired Utilities in 2021. All three Acquired Utilities had a five-year deferred rebasing period, which ends in 2020 for Haldimand and Woodstock, and 2019 for Norfolk.⁸³ Hydro One proposed to maintain a rate freeze for Norfolk rates for 2020 so that all three Acquired Utilities could be integrated in 2021.⁸⁴

⁸² Rate Handbook, *op. cit.*, p. 26.

⁸³ Decision and Order (EB-2013-0196/-0187/-0198), July 3, 2014 regarding Hydro One's acquisition of Norfolk Power's service territory and assets. Decision and Order (EB-2014-0244), March 12, 2015, regarding Hydro One's acquisition of Haldimand County Hydro's service territory and assets, and Decision and Order (EB-2014-0213), September 11, 2015 regarding Hydro One's acquisition of Woodstock Hydro's service territory and assets.

⁸⁴ Tr., Vol. 1 (June 11, 2018), p. 16/l. 28 to p. 18/l. 9.

As part of the integration, Hydro One has proposed to create six new rate classes for the customers of the Acquired Utilities.

Findings

Under Issue 56, the OEB has determined that the Acquired Utilities will not be integrated into the revenue requirement of the rest of Hydro One during the plan term. For this reason, there is no need to create new rate classes for the customers of the Acquired Utilities. The rates for the Acquired Utilities will be based on the Price Cap IR approach once the deferred rebasing period concludes.

The rationale for extending the deferred rebasing period for the Norfolk service area is no longer relevant. Hydro One may either extend the deferred rebasing period by the one year as planned, or apply to move to the Price Cap IR approach.

3.2.7 Earnings Sharing Mechanism (Issue 15)

Issue 15. Is the proposed Earnings/Sharing mechanism appropriate?

Hydro One proposed an earnings sharing mechanism (ESM) that would apply to all years of the Custom IR plan.⁸⁵ The proposed ESM is asymmetrical, with a 50/50 sharing of any achieved ROE exceeding the allowed ROE on a regulated basis by 100 basis points for each test year. The mid-year rate base would be used to calculate the ROE for each year. Any excess earnings to be refunded to customers would be adjusted for tax impacts in the year, and accumulated in a deferral account (DVA). Hydro One proposed that any refund would be disposed of at the time of its next rebasing application.

SEC supported Hydro One's proposed ESM, noting that "it is generally consistent with other ESMs that have been approved by the Board."⁸⁶ In its submission, OEB staff did not oppose the proposed ESM, but made two submissions with respect to the calculation of carrying charges on the balances of the proposed DVA and disposition of any balance at Hydro One's next rebasing application. OEB staff noted that Hydro One had concurred with the proposals in responses to interrogatories.⁸⁷

⁸⁵ Exhibit A/3/2/p. 9/section 2.1.

⁸⁶ SEC, *op. cit.*, p. 19.

⁸⁷ OEB staff, *op. cit.* p. 40. The interrogatories referenced were Exhibit I/15/CME-7 part h) and Exhibit I/15/Staff-64.

BOMA and CCC submitted that the ESM should have no deadband, and that any refunds should be returned to ratepayers as part of the annual rate adjustment (similar to what the OEB approved for Enbridge Gas Distribution),⁸⁸ and not wait until the end of the plan term.⁸⁹ VECC also submitted that the 100 basis point deadband should be eliminated.⁹⁰ CME submitted that the proposed 100 basis point deadband was equivalent to about \$40M in revenue requirement, and was too high. It submitted that the ESM deadband should be the same as the Z-factor materiality threshold, and that the ESM DVA should be cleared annually.⁹¹

Hydro One replied that the 100 basis point deadband provides greater incentive for a utility to increase its productivity. Hydro One also noted that the OEB found shortcomings for Enbridge Gas' Custom IR, such as lack of total cost benchmarking and independent budget assessment and that these shortcomings are not present in its application.⁹² Hydro One noted the support of OEB staff, QMA and SEC for its proposed ESM.

Findings

The OEB approves an asymmetrical earnings sharing mechanism (ESM) that will share regulated earnings on a 50:50 basis between Hydro One and its customers for all earnings in excess of 100 basis points from the OEB-approved return on equity. The OEB finds that this will provide the appropriate protection for customers if Hydro One has excess earnings. The Custom IR framework is intended to incent Hydro One to achieve productivity improvements, and any incentives can be diminished if an ESM is too restrictive.

As proposed by Hydro One, the ESM will be on an actual basis (earnings not normalized for weather). Using actual earnings is a simpler approach to assessing the earnings that will be shared, and any amounts shared with customers will be based on the actual regulated earnings of Hydro One each year.

The OEB is establishing a deferral account for Hydro One to record any amount to be shared during the term. Interest will accrue annually on any balance in the account using the OEB's prescribed interest rates for deferral and variance accounts. This account will be reviewed for 2018 and 2019 earnings with the annual update application

⁸⁸ EB-2012-0459, Decision and Order, p. 15.

⁸⁹ BOMA, *op. cit.*, p. 39, and CCC, *op. cit.*, pp. 8-9.

⁹⁰ VECC, *op. cit.*, p. 13.

⁹¹ CME, *op. cit.*, pp. 18-20.

⁹² Hydro One Reply Argument, *op. cit.*, p. 41.

for 2021 rates, to determine whether any amount should be refunded to customers. The account balance will also be reviewed for disposition with Hydro One's next rebasing application. As noted by OEB staff, a final review will be required once financial results for 2022 are finalized.

3.2.8 Z-factor and Off-Ramps (Issue 16)

Issue 16. Are the proposed Z-factors and Off-Ramps appropriate?

Z-factor

Hydro One proposed a Z-factor to deal with unforeseen costs based on the criteria set out in the OEB's policies. The OEB's policy requires that a Z-factor claim be for a non-routine event outside of the control of management and clearly outside of the base upon which rates are derived. Hydro One initially proposed using a materiality threshold of \$1.0 million,⁹³ consistent with the *Filing Requirements for Electricity Distribution Applications - Cost of Service* (Cost of Service Filing Requirements).

OEB staff did not oppose Hydro One's proposed Z-factor treatment and the proposed \$1 million materiality threshold, but suggested that an option available to the OEB would be to "right-size" the materiality threshold; an option contemplated in the Rate Handbook for Custom IR plans.⁹⁴ OEB staff suggested a materiality threshold of \$3.0 million, as Hydro One transmission has a threshold of \$3 million based on its revenue requirement of about \$1.5 billion,⁹⁵ similar to the proposed revenue requirement of about \$1.45 billion for Hydro One distribution in this application.

BOMA proposed a \$3.0 million materiality threshold for the Z-factor.⁹⁶ CCC submitted that the Z-factor threshold should be \$4.0 million, and the Z-factor should be symmetrical – Hydro One should also be required to apply to refund to customers Z-factor savings, in revenue requirement terms, exceeding the \$4.0 million threshold.⁹⁷ VECC proposed that the materiality threshold should be \$3.75 million (0.25% of

⁹³ Exhibit I/16/CCC-18. See also Exhibit I/16/CME-10.

⁹⁴ Rate Handbook, *op. cit.*, p. 27.

⁹⁵ EB-2017-0260, Decision, Hydro One Networks 2018 Transmission Revenue Requirement, December 20, 2017, p. 5..

⁹⁶ BOMA, *op. cit.*, p. 39.

⁹⁷ CCC, *op. cit.*, p. 10.

average revenue requirement or average annual capex).⁹⁸ CME proposed a materiality threshold of at least \$2.0 million.⁹⁹

In reply, Hydro One agreed that a materiality threshold of \$3 million was appropriate, provided that this threshold is also used for discovery in rate hearings, and to determine which projects and programs require supporting details in rate applications. Hydro One noted that a \$3 million threshold would ensure alignment between its distribution and transmission operations in the future. Hydro One also argued that the OEB guidelines do not provide for symmetrical Z-factor claims, as proposed by CCC.¹⁰⁰

Findings

The OEB approves the inclusion of a Z-factor mechanism in Hydro One's Custom IR framework. Any Z-factor claim must be outside the control of Hydro One to manage, exceed a \$3 million materiality threshold on a revenue requirement basis, and meet all of the following criteria on an individual event basis:¹⁰¹

Criteria	Description
Causation	Amounts should be directly related to the Z-factor event. The amount must be clearly outside of the base upon which rates were derived.
Materiality	The amounts must exceed \$3 million on a revenue requirement basis and have a significant influence on the operation of the distributor; otherwise they should be expensed in the normal course and addressed through organizational productivity improvements.
Prudence	The amount must have been prudently incurred. This means that the distributor's decision to incur the amount must represent the most cost-effective option (not necessarily least initial cost) for ratepayers.

⁹⁸ VECC, *op. cit.*, pp. 13-14.

⁹⁹ CME, *op. cit.*, p. 95.

¹⁰⁰ Hydro One Reply Argument, *op. cit.* pp. 42-43.

¹⁰¹ The Renewed Regulatory Framework, page 13 continued the OEB's Z-factor policy, as set out in the [Report of the Board on 3rd Generation Incentive Regulation for Ontario's Electricity Distributors](#), July 14, 2008, EB-2007-0673.

The OEB is not making a finding on the materiality threshold for a Z-factor for Hydro One's transmission operations. The OEB's Filing Requirements for Transmission Rate Applications set \$3 million as the minimum materiality threshold. The OEB will determine the appropriate treatment for unforeseen events for transmission operations in the context of a Hydro One transmission rates proceeding.

Hydro One has referred to the OEB's Filing Requirements for Electricity Distribution Rate Applications in stating that a symmetrical treatment "is not consistent with OEB guidelines as these do not provide for "symmetrical Z-factor claims."¹⁰²

The OEB disagrees that the OEB's policy on Z-factors precludes a symmetrical treatment. The policy is set out in the *Report of the Board on 3rd Generation Incentive Regulation for Ontario's Electricity Distributors*¹⁰³ and does not state that a Z-factor is asymmetrical. There is nothing to prevent the OEB from imposing Z-factor treatment for an unforeseen event that materially reduces costs and meets all of the Z-factor criteria, should one be identified.

Off-ramp

For an off-ramp, Hydro One has proposed to use the OEB's existing off-ramp mechanism for electricity distributors. For this off-ramp, a regulatory review may be triggered if Hydro One's earnings are outside of a dead band of +/- 300 basis points from the OEB-approved ROE.¹⁰⁴

OEB staff expressed no concerns with Hydro One's proposal. The Rate Handbook states that a 300 basis point off ramp may not be appropriate in all cases and should be considered in combination with the remaining customized parameters of a rate-setting plan. In this case, OEB staff stated that it was satisfied with the use of the 300 basis point threshold in Hydro One's proposed plan, and noted that this off-ramp is in addition to the proposed ESM, which is asymmetrical (i.e., in favour of sharing with ratepayers) with a 100 basis point threshold. The off-ramp threshold would be based solely on Hydro One's regulated distribution operations.¹⁰⁵

BOMA stated that under- or over-earnings exceeding the 300 basis point threshold should (not may) require a regulatory review.¹⁰⁶ In reply, Hydro One stated that BOMA

¹⁰² Hydro One Reply Argument, *op. cit.*, p 43.

¹⁰³ EB-2007-0673, *op. cit.*, pp. 34-37 and Appendix/pp. IV-VII.

¹⁰⁴ Exhibit A/3/2/p. 12/section 4.

¹⁰⁵ Exhibit I/16/Staff-65.

¹⁰⁶ BOMA, *op. cit.*, p. 39.

had not explained the reasons for its proposal, and Hydro One reiterated that its proposal should be accepted.¹⁰⁷

Findings

The OEB approves an off-ramp with a trigger at ± 300 basis points. The OEB will monitor Hydro One's results reported under the OEB's reporting and record-keeping requirements and will determine if a regulatory review is warranted if the off-ramp is triggered. Any such review will be prospective, and could result in modifications, termination or the continuation of Hydro One's Custom IR framework. This approach is consistent with OEB policy.

3.3 OUTCOMES, SCORECARD AND INCENTIVES

3.3.1 Outcomes (Issue 17)

Issue 17. Does the application adequately incorporate and reflect the four outcomes identified in the Rate Handbook: customer focus, operational effectiveness, public policy responsiveness, and financial performance?

Hydro One provided a table¹⁰⁸ in the application to demonstrate how its business objectives align with the four outcomes identified in the Rate Handbook.

Hydro One submitted that the customer focus outcome was adequately incorporated as the application is focused on addressing and balancing customer needs and preferences. Hydro One stated that the application was prepared with the benefit of an extensive early consultation process led by IPSOS as well as ongoing feedback Hydro One received from its day to day interactions with customers.¹⁰⁹

Regarding operational effectiveness, Hydro One submitted that this had been demonstrated through its productivity evidence, which showed that approximately \$398 million in productivity savings had been embedded over the course of the plan. Hydro One argued that these productivity savings reduce the capital requirements from 2018 to 2022 and reduce the OM&A requirement during the rebasing year.¹¹⁰

¹⁰⁷ Hydro One Reply Argument, *op. cit.*, p. 44.

¹⁰⁸ Exh A, Tab 3, Sch 1, p. 11 Filed:2017-03-31.

¹⁰⁹ Argument-in-chief, p. 43.

¹¹⁰ *Ibid*, p. 45.

Hydro One submitted that the application demonstrated that it is responsive to public policy initiatives. Hydro One noted in this context that the application took into account the Fair Hydro Plan and that it was also fulfilling its commitment to the smart meter program by budgeting for the commencement of replacement of smart meters in 2022. Hydro One also argued that the aggressive targets it had set for itself for public policy responsiveness measures in the Distribution OEB Scorecard would ensure that it would maintain its commitment over the course of the plan.¹¹¹

Hydro One submitted that the application appropriately addressed the financial performance outcome objective as it allowed Hydro One the opportunity to earn a fair return. Furthermore, incentives were also provided through the ESM, with savings that result in a return on equity (ROE) of a 100 basis points or more than the OEB-approved ROE being shared with customers. As well, the Capital In-Service Additions Variance Account (CISAVA) would ensure that Hydro One is incentivized to meet its financial targets, while also ensuring that ratepayers are given protection.

OEB staff and intervenor submissions generally acknowledged that Hydro One had adequately incorporated the public policy responsiveness outcome as outlined above. OEB staff and intervenors, however, stated that they had concerns with Hydro One's incorporation of the other three outcomes in the application.

OEB staff and intervenors expressed some concerns with Hydro One's incorporation of the customer focus outcome with respect to the nature of its engagement with customers regarding the Distribution System Plan (DSP), as described in more detail under Issue 23.

Regarding operational effectiveness, OEB staff and intervenors had concerns with Hydro One's \$398 million estimated productivity savings which is discussed in more detail under Issue 21. OEB staff and intervenors also expressed concerns regarding the extent to which this outcome has been reflected in the application in Exhibit B (DSP and capital expenditure) and Exhibit C, which discusses Hydro One's projected Operations, Maintenance and Administration (OM&A) expenses, including compensation.

With respect to Financial Performance, OEB staff and intervenors expressed concerns with some of Hydro One's measures as detailed under Issues 18, 19 and 20.

¹¹¹ *Ibid*, p. 46.

Findings

The OEB finds that Hydro One's customer consultation process was inadequate. The OEB's findings regarding customer focus and operational effectiveness are detailed under Issues 23 and 25, respectively. The OEB also has concerns about how the claimed productivity improvements were presented and supported by Hydro One. Productivity gains associated with operational effectiveness are also addressed under Issue 21.

The OEB finds that Hydro One's responsiveness to public policy initiatives, (e.g. Fair Hydro Plan, smart meter program) is adequate as described under Issue 27. However, the OEB has concerns about the proposed smart meter replacement program as discussed under Issue 30.

The OEB is satisfied that financial performance is adequately monitored through the scorecards and reporting, as discussed under Issues 18, 19 and 20.

3.3.2 Scorecard and Reporting (Issues 18, 19 and 20)

Issue 18. Are the metrics in the proposed additional scorecard measures appropriate and do they adequately reflect appropriate outcomes?

Issue 19. Are the proposals for performance monitoring and reporting adequate and do the outcomes adequately reflect customer expectations?

Issue 20. Does the application promote and incent appropriate outcomes for existing and future customers including factors such as cost control, system reliability, service quality, and bill impacts?

Hydro One stated that as part of its internal operating systems and external reporting requirements, it has several scorecards that it maintains and reports against. It further noted that there are three primary scorecards that relate to its distribution business, which are:

- Electricity Distributor Scorecard
- Distribution OEB Scorecard
- Team Scorecard

Hydro One noted that the Electricity Distributor Scorecard is the OEB-mandated scorecard for all electricity distributors in the province which demonstrates how distributors achieve the four RRF outcomes: customer focus, operational effectiveness, financial performance and public policy responsiveness. Hydro One concluded that its Electricity Distributor Scorecard results show its success in achieving these outcomes as well as the performance levels that it expects to achieve over the 2018 to 2022 rate setting period.

Hydro One stated that the Distribution OEB Scorecard is a proposed scorecard developed by Hydro One to supplement the Electricity Distributor Scorecard and contains additional measures that provide greater transparency to the outcomes that customers value and to areas that Hydro One has targeted for improved performance.

Hydro One stated that the Team Scorecard, which is its internal corporate scorecard, is a shared short-term compensation scorecard for all Hydro One management staff.

Hydro One stated that it has a robust performance monitoring and reporting process designed to drive accountability for management and provide transparency for the OEB and for Hydro One's customers. Hydro One further stated that alignment of the measures from the Electricity Distributor Scorecard and the proposed additional measures in the Distribution OEB Scorecard and the Team Scorecard demonstrate the promotion and incentivization of appropriate outcomes in the application, as management compensation is directly impacted by Hydro One achieving the targets it has set for itself for these outcome measures.¹¹²

OEB staff and intervenors noted that Hydro One had provided targets for the 2018 to 2022 period for the OEB's Electricity Distributor Scorecard for some of the performance indicators, but many others were marked as N/A. It was also noted that the targets for some of the indicators did not appear to be particularly challenging, and in some cases the targets appeared to represent worse levels of performance than is currently being achieved (e.g. pole replacement unit cost).

For the Team Scorecard, it was noted that while there are relatively few indicators in the first place, a number of them were either exclusive to transmission or applicable to Hydro One as a whole, not just distribution.

It was also noted that the impact of Hydro One's new vegetation management program, estimated to reduce vegetation caused outages by 20-40% over the next five years, should be factored into setting related targets over that period.

¹¹² Argument-in-chief, p. 56.

Findings

The OEB finds that Hydro One has taken steps to improve its performance measurement and its monitoring and reporting compared to its last rate application. There are, however, a number of areas where further improvement should be made, including:

- having targets for all measures for each year in the rate period
- demonstrating that these targets represent sufficiently challenging targets relative to past performance and other benchmarks in the spirit of continuous improvement

Hydro One is directed to demonstrate, in its next rebasing application, that proposed performance targets are set for each measure and each year, and that they represent an improvement relative to past performance and other benchmarks. Hydro One is to provide detailed reasons for any gaps or exceptions.

3.3.3 Productivity Gains (Issue 21)

Issue 21. Does the application adequately account for productivity gains in its forecasts and adequately include expectations for gains relative to external benchmarks?

Hydro One provided a number of different means for assessing its productivity in the application. Its PSE study provided an assessment that can be used in evaluating expectations for gains relative to external benchmarks. In addition, the Electricity Distributor Scorecard filed by Hydro One as part of the initial evidence¹¹³ included some industry performance indicators for service quality and customer satisfaction to which Hydro One's own targets could be compared.

Hydro One also included quantified productivity gains in its forecasts. These were provided in the original evidence and then updated in response to an interrogatory as shown in Table 4 below:¹¹⁴

¹¹³ Exh. A Tab 5, Sch 1, p. 8 Filed: 2017-03-31.

¹¹⁴ Exh B1-01-01 Sec 1.5, pp. 1966-1967 Filed: 2017-03-31 and Exh I, Tab 25, Sch. Staff-123, p. 2 Filed: 2018-02-12.

Table 4

Hydro One Productivity Savings Forecast

\$ millions

	2018	2019	2020	2021	2022	Total
Capital	36.4	34.2	37.8	37.3	39	184.7
OM&A	29.4	33.7	40.9	42.9	45.5	192.4
Corporate Common	4.0	4.2	4.2	4.2	4.2	20.8
Total	69.8	72.1	82.9	84.4	88.7	397.9

Hydro One provided a detailed breakdown of the individual projects that contributed to these totals and the amount of the savings expected to be generated from each of them.

OEB staff and intervenors expressed concerns that Hydro One's determination as to what constitutes a productivity gain appears to be very subjective. It was also not clear whether corresponding headcount reductions for these projects represent a net reduction for Hydro One or just staff moving from one part of Hydro One to another.

It was submitted that Hydro One should be directed to clearly demonstrate in future applications how its claimed productivity savings achieve quantifiable cost savings that will reduce costs for the distribution ratepayer (e.g. absolute headcount reductions that can be specifically related to the productivity initiative).

Findings

The OEB has concerns about how the claimed productivity gains were presented and supported by Hydro One. The OEB findings in this area are detailed under Issues 10 and 25.

3.3.4 Managing within the Custom IR Plan (Issue 22)

Issue 22. Has the applicant adequately demonstrated its ability and commitment to manage within the revenue requirement proposed over the course of the custom incentive rate plan term?

Hydro One stated that it is committed to managing within the revenue requirement proposed over the course of the Custom IR plan term in a reasonable and appropriate manner. Where the capital portion of the revenue requirement is concerned, Hydro One expressed its commitment to spending within the proposed amounts as it is at risk for capital overspending during the plan and will have to justify any In-Service Additions

(ISA) over approved levels in the next application, while at the same time having the CISAVA protecting ratepayers against In-service underspending.

Hydro One stated that its commitment to spend within the revenue requirement is also demonstrated by its historical spending as its capital spending over the course of the last rate period was approximately equal to the approved amount, and its OM&A spending has been declining over the course of the last rate period to the point where it is meaningfully below approved levels.

Hydro One also noted that its productivity and savings forecast further demonstrates its commitment to manage its revenue requirement.

OEB staff and intervenors expressed concern that while it is important that Hydro One manage within the approved revenue requirement, it is also important that Hydro One not request more cost recovery than it requires to do so. This concern was noted in the context of Hydro One's comment that its OM&A spending has been declining over the course of the last rate period to the point where it is meaningfully below approved levels.

Findings

In this Decision and Order, the OEB makes reductions to Hydro One's proposed OM&A and capital budgets based on many factors, one of which is Hydro One's inadequate planning and execution of the past planned work and associated cost performance. The OEB expects Hydro One to put appropriate control measures in place to manage within the approved revenue requirement over the course of the plan term.

3.4 DISTRIBUTION SYSTEM PLAN

A Distribution System Plan (DSP) consolidates documentation of a distributor's asset management process and capital expenditure plan. It must contain sufficient information to allow the OEB to assess whether and how a distributor has planned to deliver value to customers, how the plan supports the effective management of the assets, and how a distributor is seeking to control the costs and related rate impacts of proposed investments.

3.4.1 Customer Needs and Preferences (Issue 23)

Issue 23. Was the customer consultation adequate and does the DSP adequately address customer needs and preferences?

Hydro One retained a third party research firm, IPSOS, to design, execute, document, and analyze the feedback from the customer engagement process. The purpose of this process was to provide customers with an opportunity to offer feedback and from this to obtain an unbiased analysis of customer input. The customer feedback was collected through phone surveys, online surveys, focus groups, and in-person workshops. Hydro One also stated that it continues to obtain feedback through less formal customer consultation processes such as satisfaction surveys and the introduction of a centralized management of customer relationships. IPSOS' conclusion was that keeping costs low was a top priority for customers and reliability concerns were second. The survey also found that customers viewed current levels of reliability as acceptable and would accept a 1.1% monthly bill increase to maintain reliability and customer service levels.

OEB staff and several intervenors submitted that customer consultation did not provide a clear enough relationship between system reliability and capital spending to enable customers to provide meaningful feedback. Hydro One disagreed, arguing that the purpose of the consultation was not to obtain specific figures or amounts for relationships between reliability and capital spending but rather to understand the general needs and preferences of Hydro One's customers so they could be considered.

A significant gap that was suggested by OEB staff and intervenors was that the level of capital spending in the DSP did not take into account the impact on reliability of the new vegetation management program, proposed by ClearPath and introduced after that DSP was finalized. The parties argued that the reliability improvement resulting from the new program should enable Hydro One to reduce its proposed capital spending, particularly in the system renewal category, such that the system reliability remains essentially status quo. This would be in line with customer preferences to contain cost increases while maintaining system reliability at the current level.

Hydro One submitted that this argument represented a fundamental misunderstanding of its evidence because it suggests that the proposed Plan B-Modified for capital spending was selected because it represented the minimum possible rate increase required to hold reliability performance constant over the planning period. Hydro One argued that the vegetation management program does not renew assets in need of replacement and that the overall capital plan was developed to sustain the fleet of assets and not to enable them to deteriorate.

Another concern shared by several parties was that the customer consultation process was not completed in a timely manner such that customer feedback could be appropriately included in the investment planning and optimization process. It was argued that the timing of the customer engagement was such that Hydro One's planners had already made an initial draft of projects and programs. Hydro One disagreed and noted that the "key themes" from the customer engagement were provided in advance of the prioritization and risk optimization of investments, and before the enterprise engagement on the preliminary list of prioritized investments.

Anwaatin acknowledged the developments and progress achieved through Hydro One's new and enhanced approach to engagement with First Nations that included at least six separate contact initiatives with members of the Anwaatin First Nations Communities on the proposed distribution rates. Anwaatin submitted that Hydro One, having heard from Indigenous communities about reliability issues and the potential role of Distributed Energy Resources (DERs) in alleviating those issues, then proceeded to engage with Anwaatin and act upon the Indigenous needs and preferences that it heard during the engagement process.

Findings

The OEB finds that the customer consultation process followed by Hydro One in this proceeding was an improvement compared to past efforts; e.g. enlisting the help of IPSOS to solicit customer input and other ongoing consultation activities.

However, the OEB finds that the process was still inadequate for the following reasons:

- Improper planning on Hydro One's part regarding the timing of customer consultation relative to the timing of the prioritization and risk optimization of candidate capital investments. This resulted in customer input not being obtained in a timely manner to properly include in the investment planning process.

According to Hydro One's chronology:

- The distribution investment planning process for the 2017-2022 Business Plan was initiated on June 2, 2016.
- The draft IPSOS report, which was incomplete as it did not include "open link" survey data, was issued on July 18, 2016.
- "Key themes" from IPSOS' draft report were shared with Hydro One's asset management leadership on July 19, 2016.
- IPSOS' final report was issued on August 18, 2016.

- Prioritization and risk optimization of candidate investments was completed in “early-mid August”, 2016.

As a result, the final IPSOS report, which included all customer engagement data, was issued after candidate investments had already been prioritized and optimized. Even if one is to rely on the incomplete draft IPSOS report, as opposed to the final, the duration from issuing the draft to completing the investment prioritization process (2 to 4 weeks) was still, in the OEB’s view, insufficient to have meaningful influence on the end result.

- Hydro One was not able to establish and communicate to customers a clear relationship between proposed capital expenditures and system reliability using measurable outcomes. Reliability impact was only provided to customers in a directional fashion (i.e. reduce, maintain or improve) rather than an understandable, measurable reliability outcome. In its reply argument, Hydro One submitted that “the purpose of customer consultation is not to obtain specific figures or amounts concerning relationships between reliability and capital spending.” The OEB finds that without some level of quantification, it would be difficult for customers to understand the magnitude of the impact and to provide meaningful, informed input.
- Customer consultation did not include the impact of Hydro One’s new vegetation management strategy, which was introduced well after the Distribution System Plan had been finalized. According to Hydro One, the new strategy is expected to improve reliability performance over the 5-year term by 20% to 40% with no increase in vegetation management costs. If this had been known at the time of customer consultation, the results in terms of capital investment scenarios and customer feedback could have been significantly different.

The OEB finds that Hydro One needs to plan and execute its future customer consultation activities such that the results provide meaningful and timely input to the development of its investment planning and prioritization process. This means that customer consultation should be done well ahead of the investment plan finalization and customer input should be sought based on clear, understandable and quantifiable information regarding investment level, bill impact and system reliability.

As a result of the above, the OEB gives Hydro One’s evidence related to customer consultation limited weight in this proceeding.

3.4.2 Investment Planning Process (Issue 24)

Issue 24. Does Hydro One’s investment planning process consider appropriate planning criteria? Does it adequately address the condition of distribution assets, service quality and system reliability?

Investment Planning Process

Hydro One stated that its asset condition drives the level of spending that is in the plan due to a significant number of end-of-life assets. Hydro One noted that, during the Needs Assessment phase of the investment planning process, it considered the asset needs, customer needs, system needs, and other external influences to adequately address asset condition, service quality, and system reliability. Hydro One stated that it used a bottom-up approach to identify candidate investments to address system risk.

For each investment, Hydro One used its consequence and probability taxonomy tables to quantify the level of risk being mitigated by that investment. The portfolio of candidate investments was then evaluated for risk consistency in a calibration session. After the Needs Assessment phase, the investments were optimized to produce an optimized investment plan.

OEB staff expressed concerns that Hydro One used a pre-defined financial constraint for the overall capital envelope and that individual candidate investments had no bearing on the overall capital spending envelope but were instead competing within a pre-defined budget. OEB staff submitted that the pre-defined financial constraint is contradictory to Hydro One’s claimed bottom-up approach.

Hydro One disagreed and stated that the final spending level was arrived at through a planning process which is both bottom-up and top-down. The bottom-up approach was driven by asset condition and customer and compliance requirements. The top-down approach was a constraint reflecting management’s judgement about the level of spending to reflect a balance of customer needs and preferences, system needs and rate impacts.

Data Issues

During the oral hearing, Hydro One was cross-examined on certain statements from Ontario’s Auditor General¹¹⁵ and Hydro One’s follow-up internal audits concerning data quality and completeness issues. There were also other general data concerns, which

¹¹⁵ Office of the Auditor General of Ontario, *2015 Annual Report*, December 2, 2015.

led to questions about Hydro One's ability to provide an optimized plan when the data was not available.

It was pointed out by intervenors that Hydro One, as part of its planning process, used the Asset Analytics tool, with which the Auditor General found data integrity issues. It was also observed that the Hydro One internal audit team found that the lack of well-understood asset information can diminish confidence in the process involving the Asset Analytics tool and had the potential for less optimal decisions.

Hydro One disagreed with the intervenors and OEB staff on the interpretation of the quality and completeness of its data. Hydro One pointed out that the issue was with the use of the Asset Analytics tool and not the data itself. Hydro One argued that asset condition data is largely available, as demonstrated in the evidence filed. Hydro One further pointed out that its responses to the Auditor General's recommendations regarding "Quality of Asset Data" and "Quality of Data for Distribution Assets" were both, according to Hydro One's follow-up,¹¹⁶ substantially complete and effective.

Findings

The OEB finds that Hydro One's investment planning process as described in this application introduces a more comprehensive set of steps than what has been included in previous applications. Hydro One used a seven-stage investment planning process and eight weighted planning criteria for investment optimization. In addition, and as directed by the OEB in its previous rate proceeding, Hydro One submitted a consolidated stand-alone DSP reviewed by an independent third party.

However, there are a number of areas where Hydro One needs to pursue further improvements in its planning process, including:

- Addressing the timing and scope of concerns identified under Issue 23 about customer consultation, including better, quantifiable linkages of planned investments to system reliability.
- Addressing issues identified by the Auditor General and other Hydro One internal audits, including issues related to the quality of data and the Asset Analytics tool.
- Continuing its efforts to enhance its investment planning process to ensure proper alignment between investment plan levels, customer engagement results and asset needs.

¹¹⁶ Exh. A-3-1, Attach. 3, Hydro One *Internal Audit Report Auditor General Report 2016 Follow-up*.

OEB staff submitted that Hydro One's claim that it used a bottom-up approach to develop and optimize its investment plan is contradictory to statements by Hydro One that it had set top-down pre-defined financial constraints (i.e. overall budget envelope) informed by previous business plans.

The OEB does not view this as a contradiction. The OEB considers that while an investment plan should be developed in a bottom-up approach, there are practical limitations to what can be accomplished in terms of rate impact, risk management and resource availability which would likely put an upper limit on the investment levels. Having said that, it is critical that any direction from Hydro One's management regarding spending limitations be communicated to Hydro One's planners as early as possible in the process. This is likely to be an iterative process as has been demonstrated in this application.

3.4.3 Productivity Gains (Issue 25)

Issue 25. Does the Distribution System Plan adequately reflect productivity gains, benefit sharing and benchmarking?

Hydro One stated that there are approximately \$398 million in productivity savings reflected in the Distribution System Plan, which had reduced the capital budget and the OM&A request in 2018, and that it would achieve additional productivity each year thereafter through the stretch factor. Hydro One further stated that benefit sharing is done through the Earnings Sharing Mechanism and productivity initiatives. Hydro One argued that with respect to benchmarking, it had continued to improve its vegetation management program through the commissioning of the ClearPath report and had also retained Navigant to conduct a benchmarking study on its pole and station management programs. Hydro One stated that as a result of the Navigant study, it had implemented a new strategy of alternating detailed pole testing with visual inspections, expanded the centralized program management, utilized dedicated crews, and considered a chemical refurbishment program for poles. Hydro One stated that with respect to station management, it had also implemented a formal data governance project, enhanced the cost estimating and project release processes.

OEB staff and intervenors pointed out that, based on the Navigant study, Hydro One is ranked in the bottom quartile when compared to its peers in terms of pole program costs and would be ranked lower if an outlier company were excluded from the analysis. It was also reiterated that the DSP did not reflect the productivity gains from the ClearPath vegetation management report.

Findings

Detailed OEB findings regarding benefit sharing are addressed under Issue 15. Benchmarking is addressed under Issues 10, 11, 12 and 30 of this Decision and Order.

On the issue of productivity gains, Hydro One provided a detailed breakdown of specific initiatives where it claimed that a total of \$398 million of productivity gains over the 5-year planning period were identified during the investment planning process (approximately \$185 million in capital, \$192 million in OM&A and \$21 million in corporate common costs).

The OEB commends Hydro One for making this effort to identify and quantify potential cost savings. However, the OEB finds that Hydro One's presentation of these productivity gains makes it difficult to differentiate between what is a "productivity gain" and what would be an exercise in due diligence in reviewing these potential saving areas to ensure that their costs have been appropriately budgeted.

In future applications, the OEB directs Hydro One to clearly describe the methodology by which any claimed productivity savings are determined and whether these savings represent net cost savings for the company which would translate into reduced costs for the ratepayers. In addition, as recommended by BOMA in its final argument, the OEB directs Hydro One to file, within twelve months of this Decision and Order, a report showing the status of the productivity initiatives listed in I-25-Staff-123, including actual savings, with a discussion of any deviation from plan. In its reply argument, Hydro One disagreed with BOMA's recommendation on the basis that it would be "unduly burdensome" and "would not provide any benefit to the ratepayers given that Hydro One is the party at risk for productivity targets." The OEB does not accept Hydro One's argument. The list of proposed productivity initiatives contains a number of discrete initiatives with specific metrics and target savings and, therefore, lends itself to monitoring and reporting. It is also expected that Hydro One's senior management would want some confirmation that these proposed savings are being realized.

Hydro One repeatedly mentioned the \$398 million of productivity gains as an example of the company's new approach to find ways to perform its work more efficiently and effectively. The OEB finds that this reporting requirement will inform the OEB and interested ratepayers on a key component of Hydro One's application in support of the revenue it seeks from those ratepayers. The report is to be filed on a standalone basis and will not be adjudicated. Hydro One is expected to update the report to file with its next rebasing application.

The OEB has comments about productivity and benchmarking associated with specific work programs (e.g. pole replacement, vegetation management) which are addressed elsewhere in this Decision and Order.

3.4.4 Capital and OM&A Trade-offs (Issue 26)

Issue 26. Does the Distribution System Plan address the trade-offs between capital and OM&A spending over the course of the plan period?

Hydro One stated that it had considered trade-offs between capital and OM&A through processes and procedures such as Asset Analytics, which explains how Hydro One makes refurbishment, repair, and replace decisions. However, Hydro One noted that much of the distribution business cannot make trade-offs between capital and OM&A due to the nature of the projects, programs, or OM&A expenses. Hydro One stated that the best evidence of considering the trade-offs between capital and OM&A spending is the bottom-up approach to the development of its investment program. Investments are a culmination of individual planning decisions and are developed based on needs. The investments are then optimized based on planning criteria and there is no artificial balancing or reweighting of capital or OM&A at the top line level.

OEB staff and intervenors, while acknowledging Hydro One's limitations on the potential for trade-offs between capital and OM&A spending, expressed concern that the effect of the new OM&A funded vegetation management program was not incorporated in the DSP. Intervenors also stated that, with the large increase in capital, a reduction in OM&A should be expected especially in corrective maintenance and trouble calls but Hydro One's application forecasts OM&A expenses to actually increase.

Hydro One disagreed, stating that it had considered trade-offs through the "Asset Analytics: Asset Maintain – Refurbish/Repair – Replace Economic Evaluation Model".

Findings

The OEB realizes that not all investments lend themselves to both capital and OM&A options. This is particularly true at the work program level as opposed to the project level. However, the OEB considers the intent of Issue 26 is to ensure that, in cases where individual capital investments are proposed, the associated business cases consider OM&A options to either replace the capital option or at least defer the capital investment, as applicable. Hydro One submitted that this is done using the Asset Analytics tool.

The OEB expects Hydro One to demonstrate in future rebasing applications that OM&A options are being explicitly considered in its investment decisions to either replace or defer capital investments, as applicable.

3.4.5 Government Mandated Obligations and Regional Planning (Issues 27 and 28)

Issue 27. Has the Distribution System Plan adequately addressed government mandated obligations over the planning period?

Hydro One had stated that it had adequately addressed government mandated obligations, specifically the installation of smart meters, the Fair Hydro Plan, and the requirement to address PCB equipment.

OEB staff submitted that Hydro One had adequately allowed for costs to carry out its government mandated obligations.

Findings

The OEB finds that Hydro One adequately allowed for costs in its investment plan to carry out government mandated obligations.

Issue 28. Has Hydro One appropriately incorporated Regional Planning in its Distribution System Plan?

Hydro One stated that the DSP contains a list of projects resulting from its regional planning process. Intervenors and OEB staff agreed that Hydro One had appropriately conducted regional planning activities and incorporated the resulting capital investment consideration in its DSP.

Findings

The OEB finds that Hydro One appropriately incorporated capital investment candidates associated with regional planning activities in its DSP.

3.4.6 Planning and Pacing of Proposed Capital Expenditures (Issue 29)

Issue 29. Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?

Capital Plan Development

Hydro One stated that its capital expenditures are appropriately and adequately planned and paced. Furthermore, the level of spending was arrived at from a bottom up approach and after an iterative process, whereby customer consultation was a key component. Hydro One had determined that it had significant needs to maintain the condition of its assets and that it should not defer these problems to future ratepayers. Hydro One further noted that many of the proposed capital projects and programs are demand driven, meaning that they must be completed by Hydro One for compliance or contractual reasons.

Hydro One further stated that since its last application, it had improved the asset planning process by focusing on addressing customer needs and preferences. Hydro One added that it had demonstrated from a data completeness perspective, that it had essentially all the data needed to make planning decisions. Hydro One argued that it had also tried to pace its investments by reducing capital expenditures below the sustainable threshold for one year, 2018, to reduce the rate impact during that year and thereby offsetting the impact caused by reductions in forecasted load.

Several intervenors expressed concerns about Hydro One's over-expenditure in the 2015-2017 period in spite of the fact that the OEB approved Hydro One's entire capital request for that period. It was also noted that Hydro One did not complete the work it planned for that period and in many cases work was completed at a unit cost higher than forecasted. It was submitted that Hydro One should not be able to collect from ratepayers the additional spending incurred in 2015-2017 as many of the projects were deferred and this would result in ratepayers paying twice.

Intervenors stated that the best way to determine whether the major increase proposed by Hydro One in the test period compared to prior years is warranted is to look at Hydro One's past performance. If the past approved budget was spent appropriately, it could help assess whether Hydro One is capable of undertaking the increased capital work. It was stated that Hydro One's recent performance had been sub-par and argued that the OEB should consider scaling back the capital program.

Hydro One submitted that the under-achievement does not reflect Hydro One's ability to undertake work but was a result of unplanned events. Hydro One stated that capital program spending cannot be considered in isolation and noted that Hydro One's overall capital expenditures during the 2015-2017 period were within 0.7% of the approved plan.

Capital Redirection

Hydro One stated that redirection is an important part of its asset planning process and is reviewed on a monthly basis. Hydro One explained that redirection occurs as a result of monthly changes that could include storm activity, customer needs, project deferral due to change in in-service date, or environmental factors.

OEB staff and intervenors noted that historically Hydro One had deferred several capital projects, yet reliability remained relatively stable over the same period. It was suggested that this adds support for the view that Hydro One has the capability to further reduce capital spending and keep reliability status quo.

Hydro One disagreed with the observation that deferral of capital projects had not affected reliability, on the basis that deferral may not lead to immediate impacts but will eventually have negative consequences for reliability.

Hydro One submitted that the redirection of funds is not unique to its business and is done based on changing circumstances. Hydro One noted that the OEB directed Hydro One to produce a report on material variances in its capital program as part of its recent transmission rates application.¹¹⁷ Hydro One proposed that, if the OEB determines a report is required in this proceeding, that such report follows a format consistent with the variance report ordered in the transmission case.

Findings

As described under Issue 24, the OEB finds that Hydro One's investment planning process, while demonstrating some improvements compared to previous applications, still has some gaps that need to be addressed.

Regarding the pacing of proposed capital expenditures, the OEB finds that there have been improvements compared to Hydro One's last DSP. However, Hydro One's proposed capital expenditures in the test period in this proceeding show year-over-year differences of as much as 18% (e.g. over a \$100 million increase in 2019 compared to 2018 forecasts). For the System Renewal category, Hydro One proposes an

¹¹⁷ EB-2016-0160, September 28, 2017, pp 31-32.

acceleration of annual expenditures from \$248.6 million in 2018 to \$451.1 million in 2022 (an increase of over 80% over the 5-year period). Hydro One should attempt to reduce these fluctuations in future plans and also take that into consideration when revising the current plan to accommodate OEB-imposed reductions.

3.4.7 Overall Capital Expenditure Levels (Issue 30)

Issue 30. Are the proposed capital expenditures for System Renewal, System Service, System Access and General Plant appropriately based on the Distribution System Plan?

Hydro One stated that its capital expenditures are appropriately based on the DSP. Hydro One pointed to its historical system renewal category spending and stated that it spent approximately what was originally planned. Hydro One explained that where under-spending had occurred, it was due to redirection of funds due to unforeseen events or higher risk priorities. Hydro One stated that to mitigate rate impacts, it had also reduced its 2018 capital expenditures with the most significant reduction being in the system renewal category. The following areas of system renewal expenditures were the subject of significant discussion during the proceeding.

Pole Replacement

Replacement Rate

The pole replacement program is the largest system renewal program with a planned five-year period cost of \$579 million. Hydro One proposed to replace 72,000 poor condition poles over the five-year period. This was stated to be the anticipated replacement pace necessary to keep the population of poor condition poles approximately constant. Hydro One explained the risks of reducing the funding in the pole replacement program as being reduced reliability, safety impacts, increased cost of replacement, and deferral of necessary spending to future generations.

OEB staff and intervenors argued that as there were wood poles replaced as part of other work programs, and within that set there will be poor condition poles that are replaced, this would allow a reduction in the number of planned replacements. OEB staff submitted that Hydro One's pacing of pole replacement program should be reduced to a level consistent with maintaining constant overall system reliability and a consistent population of poor condition poles.

Hydro One submitted that these submissions lacked merit and that there was no way of knowing for sure how many poor condition poles would be replaced under other work programs.

Other concerns raised by intervenors included lack of evidence of deteriorating pole performance, reasons that the average pole replacement cost is higher than that of Hydro One's peers, the lack of accurate physical pole testing, and not having a pole refurbishment program.

Intervenors also noted that Navigant made a recommendation that Hydro One's pole testing could be improved. AMPCO submitted that without more rigorous testing it did not have sufficient confidence that the current condition assessment of poles reflects the actual condition and that Hydro One is making the best possible decisions. It was also pointed out that Navigant did not recommend that Hydro One increase the replacement pace or spending levels of its pole replacement program. As a result, it was suggested that the proposed pole replacement program should be reduced to historical levels and a pole refurbishment program should be implemented to postpone the premature replacement of poles.

Hydro One disagreed and submitted that historical achievements were lower due to redirection to demand projects, such as storms, and not because it could not complete the work. Hydro One also stated that reliability is a lagging indicator and that the number of outages related to poles has been increasing, which will lead to higher replacement costs, safety concerns, and reliability impacts if the proposed replacement level is curtailed.

Cost of Replacement

OEB staff and intervenors noted that, according to the Navigant study, Hydro One is ranked in the bottom quartile when compared to its peers in terms of pole program costs, which were 16% higher than the average of its comparators. It was, therefore, suggested that there should be a reduction in revenue requirement for the above market average cost for pole replacement.

Hydro One disagreed with these submissions reiterating that the Navigant study had concluded its costs were average. Hydro One submitted that intervenors were cherry picking data from the Navigant report.

Refurbishment Program

The Navigant benchmarking study found that the cost of replacing a pole is approximately seven times higher than the cost to refurbish a pole for those poles that can be refurbished. Hydro One does not currently have a formal pole refurbishment program whereas most of the companies in the study do.

OEB staff noted that approximately 14% of poles being replaced can be refurbished at a lower cost. OEB staff also noted that Hydro One's response that the savings from refurbishment would be reinvested in other poor condition poles would improve reliability. OEB staff submitted that the pole replacement program should include pole refurbishment and Hydro One should reduce the required capital expenditure for pole replacement.

Hydro One argued that it had no information based on actual data that refurbishment costs are cheaper and the report only provided an estimate. Hydro One also disagreed that a refurbishment program should be used to avoid pole replacement. In its reply argument, Hydro One stated that it would be initiating a pole refurbishment program to complement its pole replacement program.

Station Refurbishment

Hydro One proposed to spend \$148.1M over the five-year plan on station refurbishments. Hydro One stated that any reduction in spending on this program will defer costs to future ratepayers and impose greater reliability and cost risks on current ratepayers.

OEB staff submitted that the evidence showed that Hydro One does not have defined scopes or confidence in the accuracy of cost estimates for distribution station refurbishment projects that are beyond the 12 to 18-month planning horizon. OEB staff submitted that because of this, Hydro One had not demonstrated adequate planning for the forecast years and this inadequacy provided additional justification for an overall reduction in capital expenditures.

Hydro One disagreed with OEB staff stating that complete engineering for each of the over 70 proposed station refurbishments at this time would not provide the OEB with any additional information beyond what has already been provided. It would also lead to higher planning costs.

AMPCO shared OEB staff's concerns and submitted that given the number of major transformer failures had been trending lower since 2016, the proposed replacement rate for stations should be reduced to 10 per year, consistent with historical actuals. AMPCO

argued that this would better pace renewal investments to achieve customer preferences to minimize costs and maintain reliability.

Hydro One disagreed with AMPCO, noting that the findings of Navigant show Hydro One's stations are the oldest amongst its peers and in addition reliability is a lagging indicator. Hydro One also pointed out that AMPCO's analysis of historical actuals suggested that the replacement rate should be 10 per year, consistent with the 2016 and 2017 two-year average. Hydro One argued that AMPCO's use of a two-year average was misleading as the average for the last three-year application (2015 to 2017) was 16 stations replaced per year.

SEC stated that Hydro One had only completed 44% of the planned station refurbishments between 2015 to 2017 and spent 12.3% more in total on such refurbishments. SEC also noted that even though Hydro One undertook fewer replacements than approved in the last proceeding, it was able to exceed its substation outage target.

Hydro One defended the over-expenditure for the stations as being due to the pilot program for integrated modular distribution stations (IMDS) estimated at \$1 million per station. Hydro One stated that while this concept was innovative, it did not deliver on the savings that were expected, as instead of the \$1 million per station anticipated cost, they had ended up costing \$1.9 million per station. Hydro One submitted that it was this higher cost and its "station centric" approach that led to the increased costs. Hydro One submitted that it should not be penalized for an optimistic cost projection and reiterated that insufficient funding would cause its station fleet to further degrade and push costs to future ratepayers.

PWU submitted that there are two fundamental problems with Hydro One's plan in this area. The first is that the refurbishment or replacement of only 75 transformers in the next five years is far short of what is needed to deal with the backlog of 280 transformers that are categorized as high risk. PWU stated that at the proposed rate of replacement/refurbishment, it would take Hydro One another four rate periods to clear the backlog, without even considering transformers that will be newly added to the 'poor condition' category. Second, PWU stated that Hydro One's transformers are one of the oldest among the peer group and are increasingly getting older.

PCB Line Equipment

Hydro One proposed to spend \$72.8 million over the five-year plan to remove and replace PCB contaminated distribution line equipment. Environment Canada mandated the removal of PCB contaminated equipment in 2008 due to harmful health effects.

SEC noted that Hydro One had historically proposed an urgent need to replace PCB transformers but has been unable to meet such commitments and had once again asked for similar funds with higher unit costs. SEC stated that Hydro One should be able to undertake the work at a unit cost that is the same or lower than historical values.

Hydro One disagreed with SEC's submission and stated that removing PCB equipment is a legal requirement and if the budget was cut there would be significant costs in the next rate application.

Distribution Lines Sustainment Initiatives

Hydro One proposed to spend \$151.7 million over the five-year plan to refurbish or rebuild entire feeders or sections of feeders in order to improve the performance of distribution lines with multiple components in deteriorated condition.

AMPCO noted that Hydro One had historically under accomplished the proposed number of projects, had higher than forecasted cost per project, and had relatively stable reliability. AMPCO submitted that based on historical information, Hydro One had not sufficiently justified the increase in the number of projects and a more reasonable forecast would be to use historical actuals.

SEC noted that Hydro One only completed 20 of the 33 projects forecasted in its last case and at an average 37% higher cost. SEC further noted that although less projects were completed, Hydro One's line equipment contributions to reliability have remained relatively stable. SEC pointed out that Hydro One is requesting double the number of projects from its historical average yearly actuals and finds this unfeasible based on Hydro One's past performance. SEC submitted that the annual capital expenditures for this program should be reduced by one-third.

Hydro One disagreed with AMPCO and SEC and explained that the under accomplishment was due to redirection and not because the projects could not actually be completed. Hydro One further stated that without proactive replacements, increased replacement costs and degradation in reliability would result.

Smart Meter Replacement

Hydro One commenced installation of smart meters in 2006. The meters have an expected service life of 15 years as estimated by the vendor. Hydro One proposed a \$79.9 million investment commencing in 2021 to replace these meters.

AMPCO noted that all of Hydro One's meters are currently working and that there is insufficient data to determine if the expected service life can be exceeded. AMPCO submitted that it is premature to opt to replace all smart meters that have reached the

manufacturer's expected service life and that the capital budget should be reduced by \$1.23 million in 2021 and \$79.7 million in 2022 to account for this.

SEC noted that the end-of-life for these meters is strictly based on information from the vendor and Hydro One had not done any independent analysis to determine the condition of its meters, nor provided evidence that the meters have a higher than expected failure rate. SEC argued that Hydro One's proposal would result in premature replacement of these smart meters and add unnecessary costs to ratepayers. SEC submitted that the OEB should not approve any spending on smart meter replacement until Hydro One has done an analysis as to when the meters actually need to be replaced.

CME shared similar concerns to SEC in that there is a lack of independent verification of the appropriate service life of smart meters. CME submitted that the OEB should direct Hydro One to produce a study to determine if the expected service life can be exceeded. CME also had concerns that Hydro One was replacing smart meter units that will not be able to reliably communicate with Hydro One's network due to issues with the cellular network. CME submitted that customers should not be charged to replace meters that are not providing customers with the intended benefit and should disallow costs incurred for such replacements.

Hydro One submitted that it is unclear what smart meter replacement analysis would satisfy SEC and CME. Hydro One also disagreed with CME concerning the smart meters that are installed outside the range of a reliable telecommunications network, noting its suggestion that Hydro One should not replace these meters with units that still will not be able to reliably communicate with the network. Hydro One stated that regardless of whether the meters can communicate with the network, they still need to function in order for accurate and timely billing to take place.

Trouble Calls

Hydro One proposed an expenditure of \$431 million over the five-year plan to address service interruptions associated with distribution lines that require immediate response by Hydro One personnel.

AMPCO argued that the updated vegetation management plan should reduce the impact of vegetation over the next five years and will lead to lower trouble call related costs. AMPCO noted that ClearPath had confirmed in the oral hearing that there is a strong potential for savings as there will be fewer poles and wires down during storm events. AMPCO submitted that it is therefore reasonable to expect some savings to occur after three years of implementing the new vegetation management strategy and

the Trouble Call Program capital budget should be reduced by \$12 million in total: \$3 million in 2020; \$4 million in 2021; and \$5 million in 2022.

SEC referenced ClearPath's testimony that, under storm conditions, an improved vegetation management program will reduce the amount of damaged distribution facilities. SEC stated that fewer vegetation management caused outages will lead to less trouble calls. SEC submitted that the OEB should reduce Hydro One's Trouble Calls capital budget by \$3.49 million per year over five years as a result of the new vegetation management plan.

Hydro One rejected this proposal, arguing that there are no significant cost savings anticipated in the 2018 to 2020 period from the new vegetation management program. While some cost savings are expected in the last two years of the plan, Hydro One stated they have not been subjected to the same rigorous productivity improvement analysis that it has subjected its other productivity savings to. As such, there is a meaningful risk that reducing the trouble calls program based on such forecast savings would lead to a likely need to direct funds away from other programs if the anticipated savings do not materialize.

Integrated System Operating Center (ISOC)

Hydro One proposed \$56.4M over the five-year plan to build the ISOC which provides a Network Operating Control Center, back-up control center for the Integrated Telecommunications Management Center, and primary facilities for security operations.

SEC had concerns that the ISOC project had increased in cost and scope from Hydro One's last application. SEC saw this as being particularly problematic because Hydro One had not provided a detailed business case and relied only on its Investment Summary Document that does not have the same level of analysis and rigour. SEC also noted that the in-service date is unrealistic since it was based on construction beginning September 2018 and Hydro One has not even started its business case. SEC submitted that the OEB should deny approval of this project until the OEB has had a chance to review a business case. SEC proposed that a deferral account be established to capture the revenue requirement component of the project to allow the OEB to determine at a later date whether the proposed project is prudent.

CME shared SEC's concerns that the OEB should be provided with a complete picture of the proposed project before approving it. CME submitted that the OEB should withhold approval for spending until Hydro One is able to provide all the necessary information to the OEB.

Hydro One disagreed that the Investment Summary Document does not have the same level of information as a business case. Hydro One noted that it contained six alternatives considered, a comparison of constructed versus leased costs, ranking of 12 potential sites, risk mitigation factors, incorporation of the OEB's outcomes-based criteria, a project plan, and independent assessments of cost estimates.

Summary

OEB staff submitted that the OEB should reduce Hydro One's proposed \$3.6 billion capital budget from 2018 to 2022 by 11% or approximately \$400 million. This was based on a 17% reduction in the level of system renewal costs and other concerns cited with other issues.

AMPCO submitted that the OEB should reduce Hydro One's system renewal capital related to investments in poles, stations, lines sustainment, trouble calls and smart meters by approximately \$450 million over the 5-year term.

SEC submitted that the OEB should reduce Hydro One's overall capital budget for the test period by \$558 million to allow Hydro One to provide better value for money to customers by balancing reliability and rate impacts.

Energy Probe submitted that the OEB should reduce Hydro One's capital factor by at least 50% or eliminate it altogether because Hydro One had failed to complete the work that was scheduled within the previous budget approved by the OEB.

PWU stated that the investment plan should be based on the need to deal with Hydro One's aging assets, and emphasized that historical spend and short-term reliability impacts do not appropriately consider deteriorating asset conditions. PWU submitted that the capital investment required for Plan A, which is higher than Plan B-Modified proposed by Hydro One, should be approved for this rate period.

Hydro One submitted that the proposed plan (Plan B-Modified) is the minimum level of investment possible while maintaining asset condition under its obligations arising from the Distribution System Code. Hydro One argued that any additional cuts would only serve to push costs to future generations of ratepayers.

Findings

General

The OEB finds that the proposed level of capital expenditures during the test period has not been fully justified and will be reduced. The main reasons for this finding are:

- There are gaps and deficiencies in Hydro One's customer consultation and investment planning processes (discussed under Issues 23 and 24).
- Hydro One's historical performance has shown significant gaps between the planned capital work program and the work that was actually executed.
- Benchmarking studies involving Hydro One's capital program have shown that Hydro One's performance has been worse than its peers.
- Proposed significant increases in the test period compared to the previous five years have not been fully justified.
- The impact of the new vegetation management strategy on the proposed capital program has not been taken into account.
- The timing of the smart meter replacement program has not been properly supported.

These items are discussed in more detail below.

Historical Cost Performance

Hydro One stated in its final argument that its actual spending in the last rate period (2015-2017) was within 0.7% of plan. While this is true when the expenditures are combined for the three years, the annual variance during this period was significant (4.5% over plan in 2015, 6.0% over plan in 2016 and 12.6% under plan in 2017). Hydro One also stated in its Argument-in-Chief that its actual spending in the last three years (2015-2017) on the system renewal category, which represents the largest category of its proposed capital program (48% of the total capital program over the five-year test period) was within 1% of plan. Again, while this is true when the expenditures for the three years are added up, the annual variance during this period was significant. In 2015, the actual spending was 23% over budget, and in 2017, the actual spending was 25% under budget.

Hydro One has also deferred a number of projects that have been part of its proposed capital plans in previous rate applications. Hydro One claimed that funds get "redirected" sometimes to unforeseen work which results in the deferral of other work.

The OEB finds insufficient evidence in this proceeding to demonstrate that this “unforeseen” work had higher priority than the deferred projects and how the determination to redirect funds was made.

In terms of capital work execution in the last 3 years (2015-2017), Hydro One completed significantly less work than planned in the system renewal category (previously called sustaining capital) at a much higher cost per unit than forecast. The example shown by SEC in its final argument relates to the station refurbishment work where Hydro One spent 12.3% more than approved and did 56% fewer stations than planned. As a result, SEC argued that the average cost per station increased from about \$1 million approved to \$2.60 million¹¹⁸ (actual); an increase of 160%. It should be noted that Hydro One’s forecast cost per station for the 2018-2022 period in the current application is approximately \$2.0 million.

Hydro One reiterated in its reply argument that the reason for the increase was that it was a pilot of an innovative concept which did not deliver the savings that were expected. In addition, Hydro One also claimed that it did more work than planned at each station because of the “station centric approach” that Hydro One adopted. It is not clear to the OEB why a pilot design continued to be used at 49 stations over a 3-year period (2015-2017) when it was realized that this design “did not deliver the savings that were expected.”

In its reply submission, Hydro One repeatedly argued that using historical performance to support potential capital budget reductions is inconsistent with how the capital plan was developed. The OEB does not accept this argument. While historical performance is only one of several elements that the OEB is using in this Decision and Order to assess the reasonableness of Hydro One’s proposed spending (both capital and OM&A), it is a good indicator of the robustness of Hydro One’s planning and execution processes going forward.

In order to get a clear understanding of Hydro One’s ability to execute the planned capital program, Hydro One is directed to do the following:

- Provide a revised capital investment program as part of its first annual update explaining how the OEB-imposed reductions in this Decision and Order were accommodated in line with the OEB findings. This report is to be filed on a

¹¹⁸ SEC argued that the actual unit cost was not \$1.9 million as stated by Hydro One, but \$2.6 million. (SEC, p.47).

standalone basis to be used as a baseline for future reporting and will not be adjudicated during the annual update rate proceeding.

- Submit a comprehensive report with the next rebasing application detailing actual performance in the execution of the capital program relative to plan. More specifically, the report should show the performance at the program level in terms of overall expenditures and in-service additions compared to plan. In addition, for major projects or programs with a total budgeted cost greater than \$3 million and which are planned to be completed during the term of this Custom IR plan, the report should show the status of each project or program and an explanation of any variances regarding scope, cost or schedule. This report follows the same format as the report ordered by the OEB in the EB-2016-0160 proceeding for Hydro One's transmission business. The OEB agrees with Hydro One's suggestion in its reply argument¹¹⁹ in this proceeding that this will facilitate the consolidation of the distribution and transmission reports when the company files a consolidated rebasing application for its distribution and transmission businesses.

Benchmarking

The Navigant/First Quartile study shows that, for the pole replacement program which is Hydro One's largest capital program, Hydro One is ranked in the bottom quartile with its costs being 16% higher than its peers.

The Navigant/First Quartile report also recommended that Hydro One develop a pole refurbishment program in addition to the pole replacement program, a practice that 13 of the 17 peer utilities follow. Such a refurbishment program, which has not yet been implemented by Hydro One, could significantly reduce the program cost. According to Navigant/First Quartile, the cost of replacing a pole is about 7 times more expensive where refurbishment is an option. Hydro One stated that about 14% (10,000 poles) of its "poor condition" poles would be good candidates for refurbishment. In its reply argument, Hydro One confirmed that the company will be starting a pole refurbishment program.

The OEB finds that there are many opportunities for Hydro One to improve its performance relative to its peers which could result in significant cost reduction. The OEB expects Hydro One to aggressively explore these opportunities by learning about best practices from its peers and through the implementation of recommendations resulting from the benchmarking studies. The OEB directs Hydro One to report on these

¹¹⁹ p. 82.

improvements, particularly on the introduction of a pole refurbishment program, in its next rebasing application.

Increase in Capital Spending Compared to Previous Five Years

Hydro One's history of completing significantly less work than planned casts a strong doubt about Hydro One's ability to complete a more aggressive proposed capital plan in the 2018-2022 period than in previous rate periods.

The total capital in the proposed investment plan for the 2018-2022 period represents a 10.5% increase over the previous 5 years. This includes a 25.7% increase for the system renewal category which is the largest capital component. In the pole replacement program, which is a component of the system renewal category, Hydro One proposed to increase pole replacements from 9,600 in 2018 to 14,300 in 2019 and then up to 16,128 in 2022. The OEB questions Hydro One's ability to accomplish that.

The OEB finds that a capital investment plan at a level comparable to what Hydro One has been able to accomplish in the past, or slightly higher, would be more reasonable.

New Vegetation Management Strategy

This was partially addressed under Issue 23.

The OEB finds that implementation of the new vegetation management strategy proposed by ClearPath should result in a reduction in the magnitude of the proposed capital program as explained below.

Hydro One's Board of Directors considered four versions of a proposed capital investment plan (labelled A, B, B-Modified and C).¹²⁰ The main criterion in Hydro One's Board of Directors approval of Plan B-Modified was that it provided a reasonable balance between bill impact and system reliability. More specifically, it provided for a level of capital investment which would maintain system reliability at the current level while providing enough capital to maintain the company's assets in reasonable shape. This was the message that Hydro One clearly received from its customers (i.e. managing bill impact is the top priority and the current system reliability is good enough). This is also demonstrated by the fact that, of the four investment plans considered, Plan B-Modified was the only one that had a 0% impact on both System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI).¹²¹ The SAIDI impact in the originally filed evidence was later

¹²⁰ Exh. A, T3, Sch. 1, pp. 14-18. Filed: 2017-03-31.

¹²¹ *Ibid*, pp. 16-17.

corrected in Hydro One's reply argument to 1%. Hydro One further noted in its reply argument that these tables had been updated in response to an interrogatory.¹²² This response showed the updated SAIDI impacts as 2%.¹²³

Hydro One went to a great length in its reply submission to argue that Plan B-Modified was not selected just because it represented the minimum possible rate increase required to hold reliability performance at the current level over the planning period. Instead, Hydro One argued that the primary driver of Plan B-Modified was to sustain the fleet of assets and not enable them to deteriorate.

The OEB does not consider system reliability and asset condition to be mutually exclusive. They cannot, and should not, be treated as two independent parameters. Generally speaking, there is a direct correlation between the condition of the assets and system reliability. Therefore, if reliability is maintained at the current level, one has to assume that this is because the condition of the assets does not materially change. This was the basic premise in Hydro One's analysis of the various investment plan options (A, B, B-Modified and C) where there was a direct relationship between the investment level and system reliability (SAIDI and SAIFI). The condition of the assets (e.g. failure rates, outage rates) was implicitly included in the determination of the reliability parameters.

Plan B-Modified was approved by Hydro One's Board of Directors before the new vegetation management strategy was developed. If the impact of this new strategy (20% to 40% improvement in reliability according to Hydro One) had been factored into the DSP, the plan that would have met the above criteria (i.e. spend enough capital to maintain the current level of system reliability while maintaining the company's assets in reasonable shape) would have certainly resulted in a lower level of capital expenditures than Plan B-Modified. Hydro One's analysis of the various investment plan options shows that vegetation is the largest contributor to SAIDI at 27% and the second largest contributor to SAIFI at 16%.

The OEB recognizes that the new vegetation management strategy has not been implemented yet by Hydro One and it is difficult to predict with a high level of certainty what the magnitude of the reliability improvement would be. However, the projected 20% to 40% improvement by Hydro One is so significant that even a modestly smaller

¹²² Exh I, Tab 18, Energy Probe-17.

¹²³ SAIFI is a measure of the average frequency of power outages. SAIDI is a measure of the average duration of power outages.

improvement in the initial phases of implementation should have a significant impact on the investment level associated with maintaining reliability at the current level.

The OEB finds that a reduction in Hydro One's proposed capital investment program is warranted as a result of the implementation of the new vegetation management strategy.

Smart Meters

Hydro One proposed to spend \$79.9 million (\$1.4 million in 2021 and \$78.5 million in 2022) to replace smart meters that have reached their expected service life, as estimated by the meters' manufacturer. According to Hydro One, the number of meters to be replaced in 2021 and 2022 represents only 16.5% of the total smart meter population. Accordingly, the cost to replace the full smart meter complement will eventually total approximately \$485 million, and represents a significant investment, both during this plan as well as in Hydro One's next rate application.

These meters are currently in working order. The timing of this program is entirely based on the vendor's estimate that the expected service life for these meters is 15 years. Hydro One has not independently verified this estimated service life as it claimed that this is a new technology and cannot be compared to other distributors. In its reply argument, Hydro One stated that "there is no evidence that any independent testing can even be completed in order to verify the condition of the meters, or what that independent testing would be looking for."

Although the OEB agrees with the need to replace these meters, the OEB finds that there is a strong likelihood that Hydro One's plan could result in replacing these meters prematurely. The OEB directs Hydro One to explore with the manufacturer the basis for the estimated service life and any actual data that the manufacturer has to support this assumption before any investments are made in this program, and to include a report of this exploration in its next rebasing application for distribution rates.

Reduction in Proposed Capital Investment Program

Based on all the considerations described under Issue 30, the OEB is making a reduction in Hydro One's proposed capital expenditures over the 2018- 2022 period to take the following into account.

- Potential improvements in customer consultations and investment planning processes which could result in better identification and optimization of investment needs.

- Expected improvements in Hydro One's ability to do more work for less and to execute the work program as planned. This expectation has been further addressed through the incremental stretch factor for the capital factor, discussed under Issue 9.
- Improvement in performance relative to peers through the use of best practices, implementation of benchmarking recommendations and the implementation of a pole refurbishment program.
- Consideration of Hydro One's ability to execute a capital work program as demonstrated by past performance.
- Potential significant impact of implementing the new vegetation management strategy.
- Critical examination of the timing of the proposed smart meter replacement program.

As mentioned earlier, the OEB finds that a capital investment plan at a level comparable to what Hydro One has been able to accomplish, or slightly higher, would be more reasonable.

The OEB will impose an overall reduction in the proposed total capital for the 5-year period of \$300 million (from \$3,573.3 million to \$3,273.3 Million), representing an 8.4% reduction. The reduced budget is still \$38.4 million higher than the actual capital spend in the previous five years. The OEB considers this to be a reasonable envelope which balances rate impact, system reliability, customer input, asset management and Hydro One's capacity to execute the capital program as planned.

This \$300 million reduction does not include pension-related reductions (\$20 million in 2018) which are discussed under Issue 38 or reductions related to the HOAA (\$3.6 million in 2018) which are discussed under Issue 42.

The OEB will not break down this reduction by the areas identified under Issue 30, nor will the OEB dictate how this reduction is applied at the program and project level. Hydro One is in the best position to utilize its prioritization and optimization tools to accommodate this reduction. However, the OEB expects Hydro One to explicitly address the issues that are raised in this Decision and Order in determining how to accommodate this reduction. Also, as directed under the Historical Cost Performance section on page 74 of this Decision and Order, Hydro One is to report to the OEB the revised capital program as part of its first annual update rate application, and to provide a detailed status report as part of the next rebasing rate application. The OEB will not

re-adjudicate the appropriateness of the quantum of the revised capital program. As an interim step, Hydro One is directed to propose a preliminary annual distribution of the capital reduction over the term of the Custom IR plan as part of the draft rate order process of this proceeding.

The OEB also makes additional findings regarding Hydro One's proposed ISOC under Issue 56, including the establishment of an asymmetrical variance account for the ISOC.

The Power Workers Union suggested that the proposed capital spending should actually be increased (from Plan B-Modified to Plan A) to account for the favourable impact of the Fair Hydro Plan on customer bills. The OEB does not accept the Power Workers Union contention. The OEB agrees with SEC that the OEB's obligation is to set just and reasonable rates. The existence of an after-the-fact government subsidy does not affect what is just and reasonable. The OEB also agrees with Hydro One in its reply argument that the intent of the Fair Hydro Plan is to provide rate relief, not to permit a greater than otherwise acceptable increase in spending.

Anwaatin submitted that it expected the "pilot project" agreed to between Hydro One and Anwaatin, at a cost not to exceed \$5 million, "should be expressly approved by the OEB in this proceeding." The OEB does not approve individual projects within Hydro One's capital envelope. The settlement agreement between Hydro One and Anwaatin stated that the pilot project "shall be funded from Hydro One's distribution capital investment plan." Therefore, it is incumbent on Hydro One to accommodate the pilot project within the OEB-approved capital envelope in this proceeding.

3.4.8 Common Corporate Allocation Methodologies (Issue 31)

Issue 31. Are the methodologies used to allocate Common Corporate capital expenditures to the distribution business appropriate?

Hydro One provided the summary below of its common corporate costs for the application period:¹²⁴

Table 5

Total Corporate Common Costs 2016 to 2022

Corporate Common Cost \$M	2016F	2017	2018	2019	2020	2021	2022	CAGR
Audit	\$ 4	\$ 7	\$ 7	\$ 7	\$ 7	\$ 7	\$ 7	9.6%
Corporate Management	\$ 20	\$ 23	\$ 23	\$ 24	\$ 24	\$ 24	\$ 24	3.6%
Customer and Corporate Relations	\$ 45	\$ 52	\$ 52	\$ 52	\$ 52	\$ 52	\$ 52	2.5%
Facilities Real Estate	\$ 9	\$ 9	\$ 9	\$ 10	\$ 10	\$ 10	\$ 10	1.6%
Finance Total	\$ 29	\$ 33	\$ 33	\$ 33	\$ 31	\$ 31	\$ 32	1.8%
Finance Inergi	\$ 12	\$ 11	\$ 12	\$ 12	\$ 13	\$ 13	\$ 13	1.7%
General Counsel and Secretary	\$ 9	\$ 10	\$ 10	\$ 10	\$ 10	\$ 11	\$ 11	2.6%
Information Solutions Division	\$ 22	\$ 21	\$ 21	\$ 21	\$ 21	\$ 22	\$ 22	0.2%
Network Operating	\$ 49	\$ 49	\$ 49	\$ 50	\$ 50	\$ 51	\$ 51	0.9%
Operations COO Office	\$ 3	\$ 4	\$ 4	\$ 4	\$ 4	\$ 4	\$ 4	3.4%
People & Culture	\$ 14	\$ 16	\$ 16	\$ 16	\$ 17	\$ 17	\$ 17	3.5%
Planning	\$ 49	\$ 52	\$ 52	\$ 52	\$ 52	\$ 52	\$ 53	1.3%
Regulatory Affairs	\$ 23	\$ 23	\$ 23	\$ 19	\$ 19	\$ 19	\$ 21	-1.4%
Strategic Services	\$ 1	\$ 2	\$ 2	\$ 2	\$ 2	\$ 2	\$ 2	10.4%
Total	\$ 288	\$ 313	\$ 312	\$ 310	\$ 312	\$ 315	\$ 320	1.8%

	OM&A	Capital
Transmission Portion	19.0%	30.0%
Distribution Portion	26.4%	19.4%
Other Allocated	5.2%	

Hydro One stated that a centralized shared services model is utilized to deliver common services to Hydro One's transmission and distribution businesses and to its affiliated companies. Each business and affiliate pays its share of these costs based on a cost allocation methodology developed by Black & Veatch (B&V, formerly RJ Rudden Associates) which utilizes a breakdown of activities and drivers based on cost causality principles. Hydro One stated that the B&V study filed in this application is the same study as was approved by the OEB in the most recent transmission rates proceeding¹²⁵ and therefore remains appropriate.¹²⁶

¹²⁴ Exh. A-3-1, Attach. 2 Filed: 2017-03-31.

¹²⁵ EB-2016-0160.

¹²⁶ Argument-in-chief, p. 116.

Hydro One noted that of the total common costs, 3.5% or \$11 million per year is not allocated to a regulated business as it relates to management of non-regulated activities (for example mergers and acquisitions and non-regulated strategy work). Hydro One stated that over the planning period between 2016 and 2022, corporate common expenditures are expected to rise by approximately 11% with a compounded annual growth rate of less than 2%, but still in excess of the expected price cap factor of 1.3%. Hydro One further stated that planned productivity savings and cost efficiencies play an integral role in capping the costs and, in some cases, fully offsetting required increases. From 2018 onwards, the costs stabilize and annual increases are mostly due to inflationary pressures.

OEB staff accepted Hydro One's proposed approach to common corporate cost allocation as reasonable as there have been no factors that have arisen since the most recent transmission case that would justify a reconsideration of Hydro One's approach to allocating these costs.

Findings

The OEB finds that the allocation methodology, developed by Black and Veatch, and approved by the OEB in Hydro One's previous Transmission rate proceeding, is acceptable for the plan term. The OEB expects this issue to be examined in detail when Hydro One files a single application for distribution rates and transmission revenue requirement for the period 2023 to 2027.¹²⁷ The capitalization of common corporate costs is addressed under Issue 32.

¹²⁷ Letter from the OEB to Hydro One Networks March 16, 2018 expressed the expectation that rates for Hydro One's distribution and transmission businesses would be considered in a single application.

3.4.9 Distribution Overhead Capitalization Rate (Issue 32)

Issue 32. Are the methodologies used to determine the distribution Overhead Capitalization Rate for 2018 and onward appropriate?

The overhead capitalization rates proposed by Hydro One in this application are as shown in the table below:¹²⁸

Table 6
Hydro One Proposed Overhead Capitalization Rates

Overhead Cost Category	Test Years (%)					Test Years (\$ millions)				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
Capitalized Administrative & General Costs	10%	9%	9%	9%	9%	70.7	74.4	73.5	74.2	78.4
Capitalized Planning, Customer and Operating Costs	2%	2%	2%	2%	2%	12.3	12.4	12.5	12.7	12.7
Total	12%	11%	11%	11%	11%	83.0	86.8	86.1	86.9	91.1

¹ Administrative & General Costs include all common corporate functions and services costs

² Operating costs include asset management, operating and customer care management costs

Hydro One stated that its overhead capitalization policy is consistent with United States General Accepted Accounting Principles (US GAAP) and that it capitalizes costs that are directly attributable to capital projects and also capitalizes overhead costs supporting capital projects. The overhead capitalization rate is a calculated percentage representing the amount of overhead costs that is required to support capital projects in a given year.

Hydro One noted that in its decision on Hydro One's 2010 and 2011 distribution rates,¹²⁹ the OEB had accepted the methodology, recommendations and the allocation of costs from a study by Black and Veatch. This study had derived an overhead capitalization rate for Hydro One distribution's common corporate costs. Hydro One also noted that this accepted methodology was also used in its two most recent transmission rate applications.¹³⁰

Hydro One proposed that the overhead capitalization rate, as calculated in the B&V study in 2016, continued to be a reasonable method of distributing common corporate

¹²⁸ Exh. D1, Tab 3, Sch. 1, p. 2, Table 1 Filed: 2017-03-31.

¹²⁹ EB-2009-0096, April 9, 2010.

¹³⁰ EB-2014-0140 and EB-2016-0160.

costs to capital projects. Hydro One stated that its submissions in the application reflect this overhead capitalization rate.

Hydro One noted that the capitalization rates are down slightly relative to the previous distribution study mainly due to higher planned capital expenditures.

Hydro One noted that in the most recent transmission decision, the OEB had indicated that it would consider whether it should initiate a policy review regarding US GAAP and capitalization of overhead amounts. Hydro One further noted that policy changes, if any, resulting from such a future generic review would be implemented in a future rate application. Overall, Hydro One submitted that the methodologies used to determine the distribution overhead capitalization rate for 2018 and onward are appropriate.¹³¹

OEB staff stated that it would address the on-going use by Hydro One of US GAAP as the basis for capitalizing its overhead costs for regulatory purposes as part of the OEB staff submission on issue 58. Submissions by other parties on Hydro One's use of US GAAP are also addressed under issue 58.

Findings

Under Issue 58, the OEB has established a deferral account to record the other postemployment benefits (OPEBs) costs included in Hydro One's forecasts that can no longer be capitalized as a result of a new accounting standard under US GAAP. The OEB previously determined that it would consider the issue of capitalizing OPEBs for both distribution and transmission businesses in the next rebasing transmission application.

There were few submissions on other aspects of Hydro One's approach to capitalization. Both CCC and VECC expressed concern about how the extent of capitalization can make it difficult to assess trends in OM&A costs. OEB staff submitted that Hydro One's capitalization policies appear to be far more aggressive than other US GAAP regulated utilities in Ontario.¹³² Hydro One itself noted that 55.7% of its common corporate functions and services costs are capitalized for 2018, using the Black and Veatch model.¹³³

The OEB accepts Hydro One's capitalization rates for the Custom IR plan term. The OEB has accepted this approach in previous applications. Given the importance of benchmarking as part of the OEB's Renewed Regulatory Framework, the OEB expects

¹³¹ Argument-in-chief, p. 116.

¹³² OEB staff submission, August 3, 2018, p. 165.

¹³³ Reply argument re: Subsection 78(5.0.2) of the *OEB Act*, December 6, 2018 p. 3.

to review Hydro One's approach to capitalization in its next rebasing application. To facilitate this review, Hydro One is expected to file a report as part of its next rebasing application that compares its capitalization of common corporate costs with those of other utilities in Ontario, Canada and North America. This should include utilities both under US GAAP and those using International Financial Reporting Standard (IFRS). Hydro One may need to disaggregate its corporate costs into separate cost elements in order to do an appropriate comparison.

3.5 RATE BASE AND COST OF CAPITAL

3.5.1 Rate Base (Issues 33 and 34)

Issue 33. Are the amounts proposed for the rate base from 2018 to 2022 appropriate?

Hydro One provided the table below summarizing its distribution rate base for the 2018 to 2022 period:¹³⁴

Table 7
Hydro One Proposed Distribution Rate Base
\$millions

Description	Test				
	2018	2019	2020	2021	2022
Mid-Year Gross Plant	11,834.3	12,413.5	13,072.2	13,917.1	14,595.9
Mid-Year Accumulated Depreciation	(4,468.7)	(4,703.5)	(4,972.4)	(5,317.5)	(5,646.5)
Mid-Year Net Plant	7,365.6	7,710.0	8,099.8	8,599.6	8,949.4
Cash Working Capital	321.2	335.7	348.3	378.5	395.3
Materials and Supply Inventory	4.1	5.5	6.5	5.9	5.5
Distribution Rate Base	7,690.9	8,051.2	8,454.5	8,984.0	9,350.2

Hydro One stated that the rate base underlying the revenue requirements for each year of the Custom IR plan includes a forecast of net fixed assets, calculated on a mid-year average basis, plus a working capital allowance. Hydro One further stated that net fixed

¹³⁴ Exh. I, Tab 33, Sch SEC-67, p. 2, Table 2 Updated: 2018-05-04.

assets are calculated as gross plant in service minus accumulated depreciation and contributed capital.

Hydro One noted that the total rate base in 2017 was expected to be \$158.3 million (revised to \$170.7 million in the 2018 update reflecting the 2017 actual) above the OEB approved amount.¹³⁵ Hydro One stated that the resulting variance of 2.2% (increased to 2.4% in the 2018 update) was explained by higher in-service additions due to higher than forecast replacement of assets due to trouble calls and storm damage as well as joint use and relocation projects. In addition, Hydro One stated that a higher cash working capital requirement contributed to the higher rate base, partially offset by lower demand for distribution generation connections and reduced spending on wood pole replacements.

Hydro One submitted that the amounts it is proposing for rate base are appropriate, as evidenced by: (1) the robust process it has undergone in order to forecast and plan for its capital needs including productivity already embedded in the proposed capital expenditures; and (2) appropriate depreciation expense amounts and working capital component of the rate base. Finally, Hydro One stated that it was holding itself accountable to its customers with regard to its capital forecast through its proposed CISAVA (discussed under Issue 58).¹³⁶

OEB staff submitted that Hydro One's proposed distribution rate base for the 2018 to 2022 period is reasonable, subject to any revisions OEB staff proposed in other sections of its submission. Intervenor took similar positions.

Findings

The OEB finds that Hydro One's approach to calculating the distribution rate base for the 2018 to 2022 period is appropriate. The OEB notes that both OEB staff and intervenors did not have concerns with Hydro One's evidence in this area other than the impact of any adjustments they may have proposed in other areas that impacted these numbers. Hydro One is ordered to recalculate the rate base arising from the OEB's findings in this Decision and Order and to file the revised rate base for each year of the Custom IR plan term as part of the draft rate order for this proceeding.

¹³⁵ Exh. D1 Tab 1 Sch. 1, p. 2 Updated: 2017-06-07.

¹³⁶ Argument-in-chief, p. 117.

Issue 34. Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?

Hydro One stated that its net cash working capital requirement for its distribution operations for the 2018 test year is \$321.2 million or 7.7% of the sum of OM&A and cost of power expenses and, applying the same formula, is also 7.7% of the sum of OM&A and cost of power expenses for each year in the 2019 to 2022 period.

Hydro One noted that in preparing new rate applications, it had commissioned Navigant to conduct updated lead-lag studies for both the transmission and distribution businesses in March 2015 and that both studies had been based on 2014 actual results. Hydro One further stated that the methodology used to determine the net cash working capital required is based on the Navigant study that was accepted by the OEB in previous proceedings.¹³⁷

Hydro One added that it had also calculated the net cash working capital requirement of each of the Acquired Utilities using the 7.7% determined by Navigant.

Hydro One noted that during the oral phase of the proceeding, it had confirmed that it will be lowering its proposed revenue requirement to reflect the impact of the Fair Hydro Plan on cash working capital.¹³⁸

OEB staff submitted that the 7.7% rate is reasonable and Hydro One's allowance for working capital had been calculated in accordance with OEB policy and should be accepted by the OEB, subject to any relevant adjustments to the components of the calculation proposed by OEB staff in other sections of this Decision and Order. Intervenors generally took similar positions.

CME submitted that the OEB should ensure that Hydro One updates the cash working capital component of rate base to reflect the lower load forecast reflected in an OEB staff interrogatory response¹³⁹ if it had not already done so, and that the OEB should direct Hydro One to update the cash working capital component to reflect any further changes approved by the OEB.

¹³⁷ EB-2016-0160 Decision and Order, p.42.

¹³⁸ Argument-in-chief, p. 117.

¹³⁹ I-46-Staff 219, February 2, 2018.

Findings

The OEB finds that Hydro One's approach to calculating the working capital allowance is reasonable and has been accepted by the OEB in previous proceedings. Hydro One is directed to update the calculation to reflect the Fair Hydro Plan, Hydro One's updated load forecast and the OEB's findings throughout this Decision and Order.

3.5.2 Cost of Capital (Issues 35, 36 and 37)

Issue 35. Is the proposed capital structure appropriate?

Hydro One stated that its deemed capital structure proposed for distribution rate-making is 60% debt, consisting of 4% deemed short-term debt and 56% long-term debt, and 40% common equity.

OEB staff submitted that Hydro One's proposed capital structure is in accordance with OEB policy and should be accepted by the OEB. Intervenors generally took similar positions.

Findings

The OEB finds that Hydro One's proposed capital structure is reasonable and it is in accordance with OEB policy.

Issue 36. Are the proposed timing and methodology for determining the return on equity and short-term debt prior to the effective date of rate implementation appropriate?

Hydro One stated that it would update the short-term debt rate for 2018 to 2020 based on the 2018 deemed short-term debt rate arising from the September 2017 Bank of Canada data, and the average spread calculated by the OEB, to be released in the fall of 2017. For 2021 and 2022, Hydro One would update the short-term debt rate for these years based on the 2021 short-term debt rate to be calculated and released by the OEB in the fall of 2020.

Hydro One stated that it would update the equity cost of capital for 2018 to 2020 using the 2018 ROE based on the September 2017 Consensus Forecasts and Bank of Canada data which would be available in October 2017. For 2021 and 2022, Hydro One would update the equity cost of capital based on the 2021 ROE to be calculated and released by the OEB in the fall of 2020.

Hydro One submitted that its proposed approach was appropriate as it is consistent with its prior applications approved by the OEB and ensures that the revenue requirement is based on the most recent information available, while also being consistent with the intent of the annual update to the cost of capital parameters issued by the OEB.¹⁴⁰

OEB staff considered Hydro One's approach reasonable, except for the proposal to update these costs in 2020 for 2021 rates. Intervenors generally took similar positions.

Findings

The OEB finds that Hydro One's proposals for determining the return on equity and short-term debt are appropriate as they are in accordance with OEB policy, with the exception of the proposal to update these costs in 2020 for 2021 rates, which is denied for the reasons discussed under Issue 13.

Issue 37. Is the forecast of long term debt for 2018 and further years appropriate?

Hydro One stated that its distribution operations are allocated a portion of the debt issued by Hydro One Networks Inc. to Hydro One Inc. Hydro One Networks Inc. issues debt to Hydro One Inc. to reflect debt issued by Hydro One Inc. to third party debt investors.

Hydro One stated that the amount of each Hydro One Networks Inc. debt issue that is allocated to distribution is based on its most recent forecast of borrowing requirements, which are driven mainly by debt retirement, capital expenditures net of internally generated funds, and the maintenance of its capital structure.

Hydro One noted the OEB had determined that for the embedded debt, the rate approved in prior OEB decisions was to be maintained for the life of each active instrument, unless a new rate was negotiated, in which case it would be treated as new debt. Hydro One stated that the debt rates on its existing embedded long-term debt had been approved by the OEB in previous proceedings. Hydro One submitted that for new debt, the rate used is the contract rate prudently negotiated by Hydro One Inc.

Hydro One stated that it had assumed for rates effective January 1, 2018, the forecast interest rate for Hydro One distribution debt issues would be based on the September 2017 Consensus Forecasts and the average of indicative new issue spreads for

¹⁴⁰ Argument-in-chief, p. 118.

September 2017 that will be obtained from the company's medium term note dealer group for each planned issuance term. In addition, Hydro One assumed that the long-term debt rate would be updated to reflect the actual issuances of debt since the time of the original application, consistent with the OEB's previous distribution Decision¹⁴¹ and changes in the interest rate forecast.

Hydro One submitted that its long term debt forecast is appropriate as it reflects the needs of the capital programs of the distribution business and it is non-discretionary as it is derived from what Hydro One expects to spend on capital.¹⁴²

OEB staff submitted that Hydro One's approach to this matter was reasonable with the exception of Hydro One's assumption stated above that the long-term debt rate would be updated to reflect the actual issuances of debt since the time of the original application. OEB staff stated that it was unclear as to which reference in the previous distribution decision would support Hydro One's position and therefore submitted that the requested update should not be permitted.

Hydro One responded that the update to the long-term debt rate it was originally proposing is the rate already set out in Exhibit Q and that it does not propose to further update the long-term debt rate (except for the mid-term update to the cost of capital parameters for 2021 rates discussed under issues 13 and 14).

Intervenors generally had no concerns with Hydro One's proposal in this area other than with the proposal to update these costs in 2020 for 2021 rates.

Findings

The OEB accepts Hydro One's forecast of long-term debt as updated in Exhibit Q, as its approach is consistent with past OEB decisions. As noted under Issue 13, Hydro One's evidence is not clear as to whether it was proposing to update the long-term debt rate for 2021 rates. Regardless, under Issue 13, the OEB determined that cost of capital parameters would not be updated during the Custom IR plan term.

¹⁴¹ EB-2013-0416.

¹⁴² Argument-in-chief, p. 118.

3.6 OPERATIONS MAINTENANCE AND ADMINISTRATION COSTS

3.6.1 Overall OM&A Spending Levels (Issue 38)

Issue 38. Are the proposed OM&A spending levels appropriate?

Hydro One stated that its proposed test year OM&A expenses resulted from the business planning and work prioritization processes described in its DSP. Hydro One further stated that this process reflected a risk-based decision-making approach to ensure appropriate and cost-effective investments that demonstrated its commitment to aligning customer needs and preferences, responsible stewardship of the company's distribution assets and rate impacts.

Table 8 below provides a summary of Hydro One's distribution OM&A expenditures for the historical, bridge and test year.¹⁴³

Table 8
Summary of OM&A Expenditures
\$millions

Description	Historic					Bridge		Test
	2014 IRM	2015		2016		2017		2018
	Actual	Actual	Approved	Actual	Approved	Actual	Approved	Forecast
Sustainment	325.7	304.6	316.5	323.7	361.4	304.7	367.1	346.7
Development	11.0	10.9	15.4	11.9	17.8	8.8	17.0	11.0
Operations	29.5	27.6	35.8	31.5	39.4	31.9	37.5	36.7
Customer Care	209.3	155.4	111.7	118.8	110.9	123.4	111.6	128.7*
Common Corporate Costs and Other	94.4	69.1	59.0	72.0	54.8	84.9	54.7	48.7 **
Property Taxes & Rights Payments	4.6	4.8	4.7	4.6	4.9	5.0	5.0	4.9
Total	674.5	572.5	543.1	562.6	589.1	558.7	593.0	576.7
% Change (year-over-year)		-15.1%	-19.5%	-1.7%	8.5%	-0.7%	0.7%	3.2%
% Change (Test vs. 2016 Actual)						-0.7%		2.5%

* Reflects reduction of bad debt based on the Fair Hydro Plan.

** Reflects reduction of transformation costs and OPEB OM&A as described in Exhibit Q.

Hydro One stated that over the course of the plan, its OM&A spending would increase annually by the Inflation Factor reduced by the Productivity Factor.

¹⁴³ Exh I Tab 38 Sch. SEC-70, p. 2 Updated: 2018-06-11.

Hydro One submitted that since 2014, when OM&A expenses were high due to customer care expenses related to the implementation of a new customer information system, OM&A expenses had been kept in line and were in fact shrinking.¹⁴⁴

There were two significant OM&A changes introduced during the proceeding which were not in Hydro One's initial application: the new vegetation management program and the in-sourcing of the Call Centre Operations.

Vegetation Management

During the current proceeding, Hydro One introduced a new vegetation management program called the Optimal Cycle Protocol (OCP), which was developed by ClearPath. The program would allow Hydro One to run a three-year cycle on all of its lines by focusing only on defects and trees that have the potential to become defects in the next three years. Hydro One stated that the main benefit of this change in approach is that vegetation on all of its distribution system rights-of-way will be examined within a much shorter cycle time, which is every three years as compared to the current cycle average time of over nine years. Hydro One further stated that targeting only high risk vegetation allows for greater coverage and focuses on achieving significant reliability improvements across the system, and for the same expenditure level as originally proposed for Hydro One's previously implemented program.

Hydro One projected that based on this new OCP vegetation management program, by 2022, it will have achieved a 40% reduction in vegetation-caused SAIDI hours over its 10-year average, excluding force majeure, and a 58% reduction based on its 2017 year-end vegetation-caused SAIDI. Furthermore, it will be able to achieve these significant reliability improvements with the same projected vegetation management spending as was in the original application, which was approximately \$150 million in 2018. Hydro One summarized this as meaning that for the same costs, but using a different method, it will be able to produce better results.

Hydro One observed that several parties suggested that because of the reliability improvements provided by the new vegetation management program, it should be able to cut spending to maintain current reliability levels. Hydro One submitted that this position was predicated on a fundamental misunderstanding of the application.

Hydro One argued that it would be illogical to reduce vegetation management expenditures such that the program is then designed to achieve the same level of system reliability as the initial program, as such an approach would mean from an

¹⁴⁴ Argument-in-chief, p. 119-120.

operational perspective that less vegetation management would be carried out on the system. Hydro One stated that arbitrarily adopting modifications to the expert recommendations by reducing OCP proposed level expenditures would allow high risk vegetation to go unmanaged and result in potentially greater and not lesser system outage impacts.

Call Centre Operations

Hydro One stated that its Call Centre Operations reflected its costs under its outsourcing agreement with Inergi LP to deliver customer-facing services, including: call center services, billing, collections, settlements, and distributed generation services to Hydro One customers. Hydro One stated that in 2016, the call center handled over 2.7 million calls from customers and responded to over 63,000 emails.

At the Presentation Day to the OEB at the beginning of this proceeding, Hydro One stated that it was in the process of in-sourcing customer care, including bringing the call center back into Hydro One.¹⁴⁵ This in-sourcing was stated as being not included in the application.

Hydro One stated that the cost of the call centre is largely driven by the cost of Power Workers' Union (PWU) labour. Hydro One noted that when bringing the call centre in-house, it had assumed the contracts of PWU workers who are employed in the call centre. Hydro One explained that given the labour intensive nature of the work, it does not forecast any cost savings due to the in-sourcing of the call centre, but believes it will be able to offer a higher quality of customer service and have more flexibility in how it operates its call centre. Hydro One also noted that there are no transition costs included in the 2018 test year expense.¹⁴⁶

Proposed OM&A Reductions

OEB staff submitted that a reduction in the \$576.7 million amount of OM&A that Hydro One is proposing for recovery in the 2018 test year should be made. OEB staff stated that it believed such a reduction should be made primarily to provide Hydro One with an additional incentive to achieve greater efficiencies in the five-year period of the proposed Custom IR plan.

¹⁴⁵ Transcript, Presentation Day, p. 95, L24-L26.

¹⁴⁶ Argument-in-chief, p. 130.

In determining the amount of an appropriate reduction, OEB staff noted Hydro One's statement that its OM&A has been declining over the course of the last rate period to the point that it is meaningfully below approved levels.

OEB staff noted that with regard to the 2017 bridge year, the OEB-approved OM&A level was \$593 million. Hydro One's initial forecast of the actual 2017 OM&A spending when the application was filed was \$580.5 million.¹⁴⁷ When the application was updated a few months later, this forecast was adjusted down to \$572.8 million.¹⁴⁸ The actual 2017 expenditure was \$558.7 million,¹⁴⁹ which is a further significant reduction from the initial forecast.

OEB staff submitted that this would suggest a reduction is appropriate for the 2018 test year OM&A. When Hydro One originally filed its application in March 2017, it had forecast a 2% increase in the 2018 test year from the 2017 bridge year forecast, from \$580.5 million to \$591.9 million. However, based on the actual 2017 value, provided in May 2018, the increase from the 2017 actual of \$558.7 million to the 2018 forecast of \$576.7 million was 3.2%. If the same 2% increase as was assumed in the original application was applied to the 2017 actual value, this would result in a 2018 forecast of \$569.9 million, a reduction of \$6.8 million from the 2018 level now being proposed.

OEB staff further noted that Hydro One had reduced the 2018 test year forecast from \$591.9 million as filed to \$576.7 million by effecting reductions in only two areas – “Customer Care” and “Common Corporate Cost and Other”, in which it has recently overspent – but had made no reductions in the areas of “Sustainment,” “Development,” and “Operations,” in which it has been significantly underspending. OEB staff noted in addition that Hydro One's actual total spending for 2016 and 2017 was \$562.6 million and \$558.7 million respectively with an average of \$560.7 million. OEB staff also expressed concerns that Hydro One's bringing of the call centre back in-house is not achieving any cost reductions.

OEB staff submitted that as a result of the above considerations, a minimum level of reduction in Hydro One's proposed 2018 OM&A level of \$17 million to \$560 million should be made. OEB staff observed that Hydro One's failure to make reductions in areas where it has significantly underspent suggested that there is room for an OM&A cut in this range, as does OEB staff's concerns on Hydro One's compensation costs discussed under Issue 40.

¹⁴⁷ Exh. C1, Tab 1, Sch. 1, p. 2 Filed: 2017-03-31.

¹⁴⁸ Exh. C1, Tab 1, Sch. 1, p. 2 Filed: 2017-06-07.

¹⁴⁹ Exh I, Tab 38, Sch. SEC-70, p. 2 Updated: 2018-05-04.

OEB staff stated that it had considered Hydro One's submissions in its Argument-in-Chief with respect to vegetation management and that it is not OEB staff's position that Hydro One's vegetation management expenditures should be reduced from what Hydro One is proposing. OEB staff also proposed an additional \$17 million OM&A reduction arising from Hydro One's pension-related costs.

AMPCO proposed a \$54.8 million reduction to 2018 OM&A consisting of the following:

- \$6.4 million reduction to Trouble Calls
- \$9.6 million reduction to Vegetation Management
- \$17.5 million reduction to compensation (market median)
- \$17 million reduction to compensation (pension)
- \$4.3 million reduction for vacancies

CCC submitted that Hydro One's starting OM&A level for 2018 should be more aligned with the actual amounts for 2016 (\$562.6 million) and 2017 (\$558.7 million). CCC therefore proposed that Hydro One's OM&A level for 2018 be set at \$560 million (i.e. a reduction of \$16.7 million), which is in line with historical levels. CCC argued that if OM&A is truly "shrinking" as Hydro One has claimed, this is an appropriate starting point for the 5-year plan. CCC noted that Hydro One had indicated during the hearing that it was tracking below its 2018 budget. CCC stated that this recommendation was before further proposed reductions related to compensation. CCC also proposed additional reductions of \$17.5 million for compensation costs and \$17 million for pension-related costs.

Energy Probe argued that the OEB should reduce Hydro One's OM&A spending so that it doesn't recover any compensation cost that is over the P50 median, as detailed in Hydro One's own evidence. Energy Probe noted that the OEB had repeatedly warned that Hydro One needs to find ways to control its compensation compared to that of its peers. Energy Probe submitted that the utility has had nearly a decade of warnings from the OEB, and Hydro One's shareholders should now have to bear the cost of above-market compensation. Energy Probe calculated this reduction as \$37.75 million annually. Energy Probe argued that the OEB should also block Hydro One from recovering pension contributions from ratepayers, given that its own actuarial evaluation says the pension is in a surplus position to the tune of hundreds of millions of dollars, and it is not required to contribute to the fund for the foreseeable future. Energy Probe estimated that this would result in a \$37 million annual cost reduction, of which \$17 million would be OM&A-related.

SEC submitted that the OEB should reduce Hydro One's proposed 2018 OM&A expenditures by \$36.1 million (\$18.6 million related to vegetation management and \$17.5 million related to compensation).

SEC submitted that the OEB could reasonably expect 2018 OM&A to be at least 4.1% below 2017 OM&A actual, based on management's public statements, i.e. about \$536 million. SEC stated that this should be the maximum amount included in rates for the 2018 rebasing year. SEC stated that this amount was exclusive of the compensation adjustment that it was also proposing.

A summary of the recommendations made by parties who proposed overall OM&A cost reductions is provided in Table 9 below:

Table 9
Summary of Proposed OM&A Cost Reductions
\$millions

	AMPCO	CCC	EP	SEC	Staff
OM&A Work	20.3	17.0		37.1	17.0
Compensation	17.5	17.5	37.8	17.3	
Pension-Related	17.0	16.7	17.0		17.0
Total	54.8	51.2	54.8	54.4	34.0

Hydro One argued that OEB staff's submission that its 2018 OM&A spending level should be reduced by \$17 million to \$560 million is a significant reduction that is not appropriate as the vast majority of OM&A expenses are demand programs, vegetation management, or storm response. Hydro One submitted that there is no bottom-up analysis that supports any reduction to the OM&A budget and that fundamentally, the flaw in the proposed reductions is that they take a top down approach to the analysis of this issue rather than identifying particular programs where cuts should be made. Hydro One also rejected OEB staff's assertion that a high level cut to OM&A spending levels will incentivize Hydro One to be more productive.

Hydro One rejected SEC's assertion that the 2018 actual OM&A expenses will be below 2017 actuals, stating that it is directly contradicted by the evidence of Mr. Lopez. Hydro One also disagreed with SEC's prediction that Hydro One's 2018 OM&A expenses will be \$536 million, which Hydro One stated was a level far lower than its OM&A expenses in any year on record, and well below 2017 actuals.

Hydro One submitted that SEC had provided no explanation as to what programs should be cut, or how they can be cut while still providing necessary services to customers. Instead, Hydro One argued that SEC had relied on a figure of 4.1%, which reflected a single quarter of information for the entire consolidated business, to suggest that Hydro One's 2018 distribution OM&A for the entire year will be 4.1% below 2017.

Hydro One disagreed with CCC's submission that its OM&A costs are "increasing significantly" in future years stating that this is not the case as they are increasing in 2018 from 2017 levels by 3.2%, which Hydro One characterized as hardly a significant increase. Hydro One noted that the 2018 amount is still 2.7% below the 2017 OEB-approved level, demonstrating the positive trend and Hydro One's focus on controlling and reducing costs within its control.

Findings

The OEB finds that Hydro One's proposed 2018 OM&A budget of \$576.7 million has not been fully justified and shall be reduced by \$32.3 million (to \$544.4 million). This reduction (representing 5.6%) includes \$10 million based on Hydro One's past cost performance, \$4.8 million related to above market median compensation, \$17 million related to pension, and \$0.5 million associated with the Hydro One Accountability Act (section 78(5.0.2) of the OEB Act).

The main reasons for this reduction are as follows:

- Hydro One has been under-spending its OM&A compared to approved levels and is forecasting to spend more in 2018 than it did in either 2016 or 2017. There is no compelling evidence to support this.
- Hydro One's compensation levels continue to be higher than benchmarks in spite of repeated concerns expressed by the OEB in previous proceedings.
- Hydro One's has a significant surplus in its pension plan and there is no justification for continued inclusion of additional pension contributions in rates.
- The introduction of the Hydro One Accountability Act regarding executive compensation (section 78(5.0.2) of the OEB Act).

The above issues are discussed in more detail below.

Hydro One's past cost performance

As stated under Issue 30, historical performance is used in this Decision and Order to assess the reasonableness of Hydro One's proposed spending (both capital and OM&A). In the OEB's view, it is a good indicator of the robustness of Hydro One's planning and execution processes going forward.

In 2017, the actual OM&A spend was \$34.3 million (5.8%) less than the approved amount. For the sustaining OM&A component, which represented approximately 60% of the total OM&A, the under-spend was \$62.4 million or 17.0% of the approved budget.

Looking at the last three years (2015-2017), Hydro One underspent its approved OM&A by an average of \$10.5 million (1.8%) per year. Hydro One over-spent in 2015 but under-spent in 2016 and 2017.

Although the proposed 2018 OM&A level (\$576.7 million) is \$16.3 million (2.7%) lower than the 2017 approved amount, it is \$18.0 million (3.2%) above the 2017 actual spend. For the sustaining OM&A, the 2018 forecast is \$20.4 million or 5.6% below the 2017 approved budget, but \$42.0 million or 13.8% above the 2017 actual spend.

The above numbers show that, while Hydro One was not able to spend the approved budget in 2016 and 2017, it is still seeking a budget for 2018 which is higher than the actual spend in 2015, 2016 and 2017. The historical under-spending by Hydro One demonstrates that either the work program was not properly planned and estimated or Hydro One's ability to execute the work was limited, or both.

The OEB finds the proposed 2018 OM&A budget to be ambitious based on Hydro One's past cost performance. There is no compelling evidence in this proceeding to suggest that Hydro One needs an OM&A budget higher than it actually spent in each of the last three years.

The OEB is reducing the 2018 proposed budget by \$10 million (from \$576.7 million to \$566.7 million) to account for Hydro One's past cost performance. This will bring it in line with the average actual spend in the 2015 to 2017 period (\$565.6 million).

Compensation

Addressed under Issue 40.

Pension Costs

Although Hydro One's pension plan has been in a significant surplus position for some time (current surplus is more than \$434 million), Hydro One is seeking to recover \$37 million from ratepayers in 2018 (\$17 million in OM&A and \$20 million in capital). Further details are provided under Issue 40.

The OEB denies Hydro One's request to recover the \$37 million (\$17 million in OM&A and \$20 million in capital) based on the magnitude of the current surplus. For future rebasing applications, the OEB directs Hydro One to provide justification for the inclusion of any additional pension contributions in rates given the current surplus.

Hydro One Accountability Act

Addressed under Issue 42.

3.6.2 Customer Needs, System Reliability and Service Quality (Issue 39)

Issue 39. Do the proposed OM&A expenditures include the consideration of factors such as system reliability, service quality, asset condition, cost benchmarking, bill impact and customer preferences?

Hydro One submitted that its proposed OM&A expenditures appropriately include consideration of factors such as system reliability, service quality, asset condition, cost benchmarking, bill impact and customer preferences, stating that each of these elements is considered in its proposed OM&A expenditures through the investment planning process.

Hydro One argued that system reliability had been addressed through the new vegetation management program, while service quality had been addressed through the decision to bring the call centre operations in-house. Asset condition was addressed through ongoing asset condition testing programs, while cost benchmarking is demonstrated through the use of scorecards and the benchmarking studies that were submitted as part of the application. Finally, Hydro One argued that customers have told Hydro One their number one concern is bill impact, and Hydro One's attention to the bill impact of OM&A is best demonstrated by its request for a 2018 test year OM&A that is \$16.3 million (or 2.8%) below the 2017 level approved by the OEB in the last rate application.¹⁵⁰

¹⁵⁰ Argument-in-chief, pp. 132-134.

OEB staff acknowledged Hydro One's argument that system reliability had been addressed through the new vegetation management program, but noted that this program is in its early stages of implementation so that it is unclear the extent to which it will have a positive impact on reliability.

OEB staff expressed similar concerns about addressing service quality by bringing the call centre operations in-house noting that, as discussed under Issue 38, the move in-house is still in its early days and it is not yet clear by how much it will improve service quality, nor whether it will generate cost savings.

Hydro One noted that it had filed expert support from ClearPath supporting the vegetation management program and the forecasted reliability improvements, and ClearPath testified to these expected improvements. Hydro One observed that the projected improvements are a forecast, not a guarantee.

Hydro One made similar comments about OEB staff's submission that service quality improvements as a result of bringing the call centre in-house have not been realized yet, arguing that such is the nature of applications such as this one. Hydro One stated that it cannot provide definitive evidence of the impacts of expenditures that will be made in the future noting that everything is a projection, but that it is "advancing well".

Findings

The OEB finds that system reliability has been addressed by Hydro One through the introduction of the new vegetation management strategy. Although this strategy was developed after the OM&A budget was finalized, Hydro One expects that it would result in a significant improvement in reliability (20% to 40%) without an increase in cost. This expectation is yet to be validated.

Regarding service quality, the OEB acknowledges Hydro One's claim that bringing its call centre operations in-house effective March 1, 2018 appears to show "significant" performance improvements in terms of service quality. Again, this claim needs to be supported in the longer-term.

The OEB finds that asset conditions have been factored into Hydro One's proposed ongoing asset condition testing programs such as the implementation of Navigant's recommendation to include more thorough pole testing.

The OEB finds that cost benchmarking has been addressed through the implementation of recommendations from a number of benchmarking studies, as well as the introduction of new metrics in Hydro One's scorecards.

Regarding bill impact and customer preferences, the OEB finds that the proposed 2018 OM&A budget should be reduced as described under Issue 38. This reduction is in alignment with customers' feedback that minimizing bill impacts is the top priority and maintaining system reliability at the current level is satisfactory.

3.6.3 Human Resources Costs (Issue 40)

Issue 40. Are the proposed 2018 human resources related costs appropriate (excluding executive compensation)?

Hydro One acknowledged¹⁵¹ that its total compensation and corporate staffing strategies needed to reflect the concerns of its customers regarding the need to keep costs as low as possible, and feedback from the OEB and other external stakeholders regarding compensation and employee headcount.

Hydro One stated that guided by a company-wide commitment to aligning customer needs and preferences, responsible stewardship of the distribution system, and rate impact, it has made gains in either reducing or limiting compensation costs and actively managing the efficiency and size of its work force, taking into account the size of its work programs.

However, Hydro One also noted that to accomplish the work program reflected in the application and deliver on the outcomes that it is committing to, it is necessary for it to attract, motivate, engage and retain a highly skilled and high performing workforce with appropriate compensation systems.

Hydro One also noted that updated valuations of its pension plan and post-employment benefits plan have resulted in reductions to its revenue requirement.¹⁵²

FTEs

Hydro One recognized the concerns set out in previous OEB decisions with respect to rising headcount, including a concern that it has not presented its resourcing requirements on a Full Time Equivalent basis (FTE). Hydro One stated that in the current application it has provided reporting on FTEs and in the future it expects to incorporate the FTE metric into its business planning and performance management

¹⁵¹ Exh. C1, Tab 2, Sch. 1, p. 1 Filed: 2017-0-31.

¹⁵² Argument-in-chief, pp. 134-135.

processes. Hydro One also noted that total regular FTEs and total FTEs in 2022 are expected to be 2.0% and 1.3% lower respectively than in 2017.

Management Compensation

Hydro One stated that in order to achieve its commercial objectives, the independent Board of Directors had determined that senior managers with proven track-records of delivering the targeted commercial objectives were needed. Hydro One further stated that the individuals with these skills have been added to its senior leadership team and were empowered by the Board of Directors.

Hydro One explained that to achieve these commercial objectives, it had become critical that it design a compensation structure to attract, motivate, and retain high-performing talent to execute on the corporate strategy. To assist with this work, Hydro One engaged Willis Towers Watson to undertake competitive market assessments and sought advice from Hugessen Consulting to determine the basis for the components of a new management compensation program. Willis Towers Watson completed two compensation benchmarking studies and Hugessen Consulting completed an executive compensation benchmarking study. All three of these studies were included as part of the application.

Hydro One concluded that its management compensation strategy is driving a cultural shift to commercial company norms, with new shareholder expectations and an increased focus on customers, productivity, efficiency and accountability.

Hydro One submitted that its management compensation strategy is illustrative of its new approach to compensation. Hydro One stated that it is focused on pay for performance where successful outcomes are rewarded and there are no generalized compensation increases for management employees. Hydro One noted that a significant portion of compensation is variable or at-risk pay, with a greater percentage of compensation being variable the more senior the role. Hydro One stated that its compensation programs are based on independent compensation advice and best practices and are aligned with compensation principles approved by the Hydro One Board of Directors. Hydro One also noted that in response to concerns expressed regarding its defined benefit pension plan, it had closed this plan and introduced a less costly defined contribution pension plan for all new management employees and in addition, employees are contributing more to the cost of their pension.¹⁵³

¹⁵³ Argument-in-chief, p. 135.

Unionized Staff Compensation

Hydro One noted that approximately 90% of its employees are represented by a trade union and it is legally required to negotiate collective agreements with the employees' bargaining representatives. Hydro One stated that it had inherited collective agreements from Ontario Hydro, which established terms of employment, and that these agreements had established a 'floor' upon which future negotiations are based. Hydro One further stated that while legacy collective agreements continue to strongly influence current Hydro One collective agreements, it has done much to change the status quo, including successfully incrementally reducing costs and/or increasing productivity through collective bargaining.

Hydro One stated that its human resources strategy is to negotiate fair and reasonable collective agreements to foster and promote healthy union–management relationships. In this context with respect to labour agreements, more so than commercial contracts, parties must also consider their longer term relationship. Hydro One concluded that it has been able to achieve reasonable settlements with moderate incremental cost reductions and increased flexibility in a variety of areas in every round of collective bargaining since 2001.

On July 11, 2018, Hydro One filed its Memorandum of Agreement (MoA)¹⁵⁴ with the Power Workers' Union for a two year collective agreement running from April 1, 2018 to March 31, 2020. Hydro One noted that the wage escalation in the MoA is higher than the wage escalation assumed in the application, but as indicated during the oral hearing, Hydro One is not seeking to adjust its applied-for revenue requirement in light of the MoA. Hydro One had assumed a one percent PWU wage escalation rate in the application, but the wage escalation rates in the MoA were 1.8% effective April 1, 2018, 2.0% effective April 1, 2019 and 0.6% effective January 1, 2020. The revenue requirement effects of the contract were estimated to range from a low of \$1 million in 2018 to a high of \$2.35 million in 2022.

Overall Compensation Costs

In the application as originally filed, Hydro One provided information on the actual total compensation for distribution operations for the 2014 to 2016 period, the 2017 bridge year forecast and for the 2018 to 2022 forecast, as shown in Table 10 below.¹⁵⁵

¹⁵⁴ EB-2017-0049 – Hydro One Networks Inc.'s Distribution 2018-2022 Rate Application – Memorandum of Agreement with PWU and Variance Analysis, July 11, 2018.

¹⁵⁵ Exh. C1, Tab 2, Sch. 1, p. 48 Filed 2017-03-31.

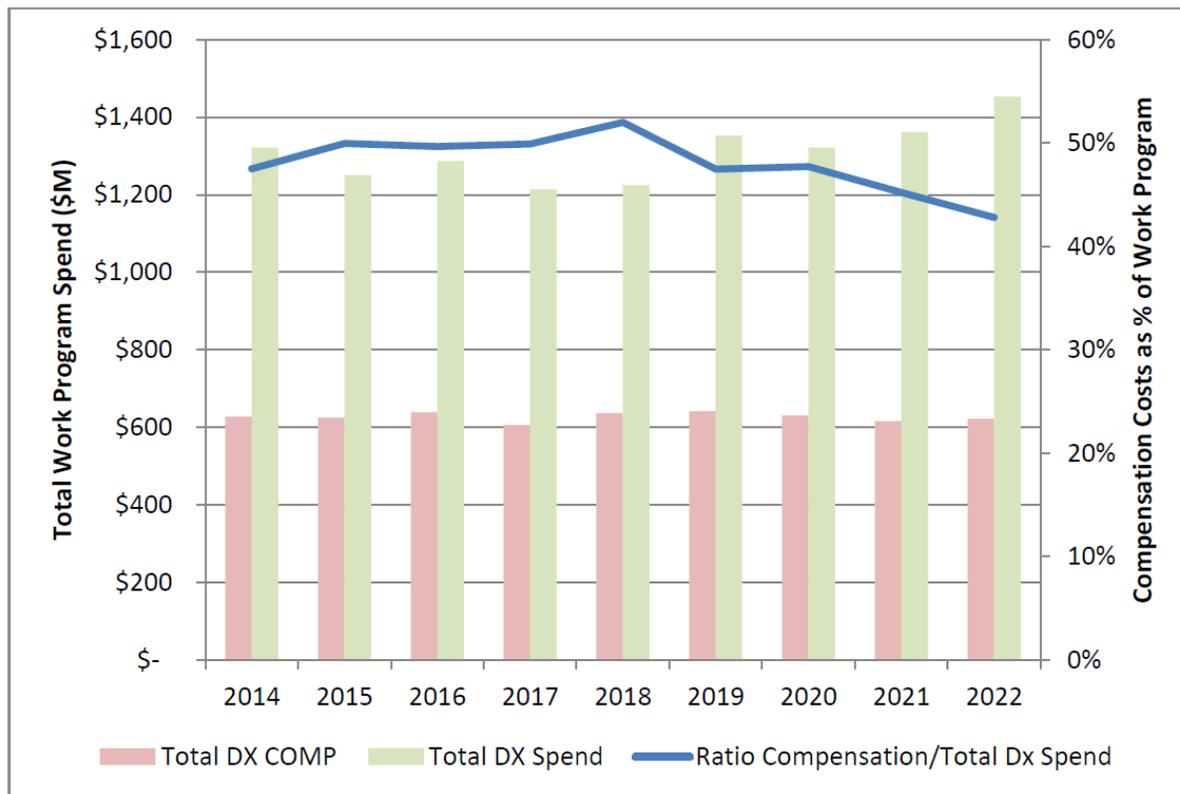
Table 10
Total Compensation for Distribution Operations
\$millions

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total Dx Compensation	628,687,087	625,297,510	639,004,626	606,748,484	637,778,506	642,530,718	631,275,350	616,248,742	622,009,219

Hydro One noted that over the 2017 to 2022 period, total compensation for the distribution business increased by 2.5% whereas the distribution work program is expected to increase by 19%, which Hydro One stated was an indicator of its increasing productivity.

Hydro One provided evidence of the declining trend in compensation spending as a percentage of total work program spend in Table 11 below where this is represented by the solid line.¹⁵⁶

Table 11
Hydro One Distribution Compensation vs. Total Work Program (OM&A and Capital)



¹⁵⁶ Exh. C1, Tab 2, Sch. 1, p. 34 Filed:2017-03-31.

Hydro One also noted that in the OEB's decision on its previous distribution rates application,¹⁵⁷ it had been directed to undertake a compensation study to allow benchmarking to comparable companies. Hydro One stated that as a result, four total compensation studies had been conducted by Mercer Canada, with the 2016 study provided as part of the application.¹⁵⁸

In April 2018, Hydro One filed an updated version of the Mercer compensation study.¹⁵⁹ The mandate of the Mercer study is described as "to prepare an independent, testable and repeatable market-based assessment of the reasonableness of Hydro One's total compensation levels including salary, short-term incentives, long-term incentives, pension and employer paid health and group benefits relative to a select peer group."¹⁶⁰

Mercer stated that this study was conducted in 2008, 2011, 2013 and 2016, and was repeated in 2017, following a similar methodology. On an overall weighted average basis, for the jobs Mercer reviewed in 2017, Hydro One is positioned approximately 12% above the market 50th percentile (P50 or median). In comparison to the 2016 study, Hydro One's overall weighted average positioning has decreased from 14% above the market total compensation 50th percentile. Mercer suggested that the shift in Hydro One's competitive position towards the median is notable given that the peer group, like Hydro One, has worked to reduce labour costs as a response to both the substantial economic downturn beginning in 2008 and expectations of key stakeholders over the 2008 – 2016 period.¹⁶¹

Table 12 below summarizes the results of the 2017 Compensation Cost Benchmarking Study compared to the results of the 2016, 2013, 2011 and 2008 study.¹⁶²

¹⁵⁷ EB-2013-0416.

¹⁵⁸ Exh. C1, Tab 2, Sch. 1, Attach. 5 Updated 2017-06-07.

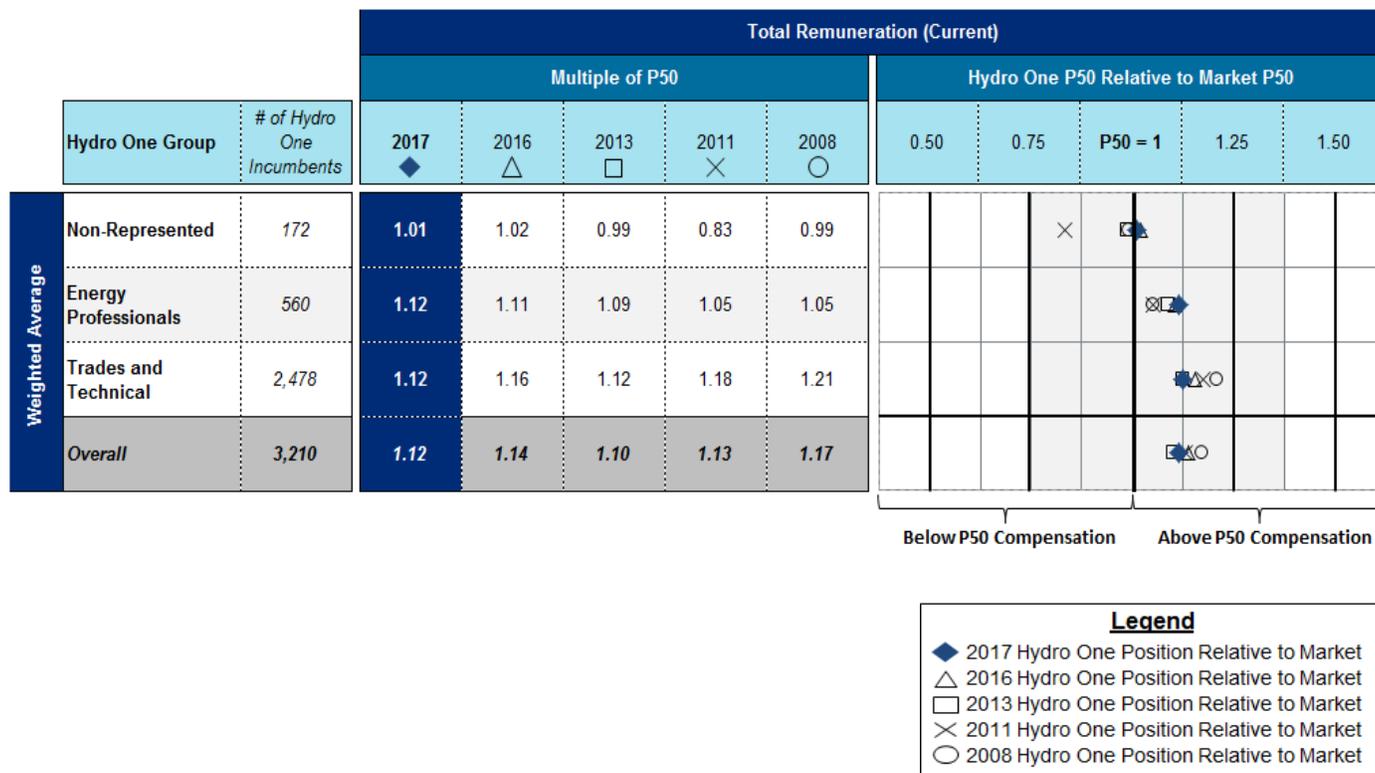
¹⁵⁹ EB-2017-0049 "Additional Compensation Evidence," April 20, 2018.

¹⁶⁰ Mercer "Compensation Cost Benchmarking Study Hydro One Networks Inc.," 04 April 2018, p. 1.

¹⁶¹ *Ibid*, pp. 3-4.

¹⁶² *Ibid*, p. 5.

Table 12
Hydro One Compensation Relative to Market



In early May 2018, Hydro One filed updated compensation costs on a transmission, distribution and total basis. OEB staff summarized the results of this filing in Table 13 below.¹⁶³

Table 13
Hydro One Updated Compensation Costs

	\$ Thousands			%			Yr over yr % change		
	Trans	Dist	Total	Trans	Dist	Total	Trans	Dist	Total
2013	476043	595670	1071713	44.4	55.6	100			
2014	522548	596623	1119171	46.7	53.3	100	9.77	0.16	4.43
2015	517129	602556	1119685	46.2	53.8	100	-1.04	0.99	0.05
2016	475921	569705	1045626	45.5	54.5	100	-7.97	-5.45	-6.61
2017A	508122	555417	1063539	47.8	52.2	100	6.77	-2.51	1.71
2018T	525558	609690	1135248	46.3	53.7	100	3.43	9.77	6.74

¹⁶³ Exh. I-40-SEC 85, Attach. 1, p. 1 Filed: 2018-05-04.

OEB staff noted that the above table shows that there is an almost 10% increase in distribution compensation costs in the 2018 test year when compared to 2017 actual. OEB staff further noted that this is partially because compensation costs increased by 6.74% overall in the 2018 test year as compared to 2017 actual, but also because the allocation of these costs to distribution operations increased from 52.2% in 2017 to 53.7% in the 2018 test year.

OEB staff stated that it considered this increase to be excessive given currently expected increases in the inflation rate, and submitted that this is further support for the overall reduction in the test year OM&A which OEB staff had recommended.

In making this recommendation, OEB staff stated that it was mindful of the improvement relative to its comparator group that Hydro One has demonstrated in the 2017 Mercer study in which Hydro One has moved to approximately 12% above the P50 in comparison to the 2016 study's level of 14%. However, OEB staff first noted that there has been quite a bit of variability in Hydro One's performance over the past 10 years, being 17% above the median in 2008, dropping to 10% above in 2013 and then increasing to 14% above in 2016, and that Mercer appeared to place significant qualifications on the extent of the improvement.

In any event, OEB staff expressed concerns with Hydro One being 12% above the median in 2017 when it was only 10% over in 2013 and that this represented uncertain progress at best. OEB staff submitted that a level of 12% above the market median is still too high, especially given the number of years Hydro One has now been working to bring these costs more in line with market levels.

In this context, OEB staff noted that the challenges ahead for Hydro One in keeping its compensation costs under control appear to be emphasized by the terms negotiated on the new PWU contract, which resulted in higher costs than Hydro One had forecast in the application. While Hydro One is not seeking recovery of these additional costs in the current application, they will exert upward pressure on compensation costs for future applications.

For all of the above reasons, OEB staff expressed the belief that its recommendation to reduce the test year OM&A level from that which Hydro One is requesting is supported by the above assessment of compensation costs.

AMPCO submitted that the OEB should reduce Hydro One's compensation to the market median in accordance with the first study filed by Mercer, where Hydro One is 14% above market median. AMPCO stated that this resulted in a \$17.5 million reduction in OM&A and \$20.5 million reduction in capital. AMPCO also submitted that an

additional reduction of \$4.3 million should be made to account for vacancies throughout the year.

CCC submitted that a reduction of \$17.5 million should be made for the same reason.

CME submitted that Hydro One's Short-Term Incentive Program (STIP) is an expensive program that was implemented without study as to how it would provide improvements to Hydro One's staffing situation and is contributing to Hydro One's above market positioning with limited benefit to ratepayers.

CME also submitted that the costs associated with the PWU and Society share grant programs are not real costs incurred by Hydro One and as a result these are not appropriate costs to be recovered from ratepayers. CME further submitted that the OEB should reduce the annual compensation costs to the extent that they are above market median.

SUP submitted that the \$17.5 million reduction suggested by parties should be reduced because the OEB should apply the 5% deadband noted by Mercer in relation to its study such that Hydro One's compensation cannot be assumed to be anything higher than 12% minus 5% (the deadband), that is, 7%. As a result, only a 7% reduction to compensation related revenue requirement – that is, approximately \$10.77 million – should be applied.

Hydro One responded that its proposed human resources costs are prudent. It observed that some intervenors have noted that Hydro One's witness stated that Hydro One has much more generous pensions and benefits than other employers. On this point, Hydro One reiterated that this situation, which – as noted by QMA and Energy Probe – is a legacy inherited from Ontario Hydro, is only within management's control to a certain extent. In other words, having collectively bargained agreements and inability to unilaterally alter them provides the context in which Hydro One operates, and the prudence of Hydro One's decisions should be evaluated in that context. Hydro One submitted that to the extent management does have some control in this regard, it has made significant progress.

Hydro One argued that, should the OEB seek to make a determination regarding its compensation costs based on where Hydro One stands relative to its peers, Hydro One's proposed revenue requirement related to compensation should be approved based on the fact that on a total cash basis, Hydro One is at market median.

Specifically, Hydro One submitted that the reality is that when pension and benefits are removed from compensation Hydro One is at market median. When total cash is considered, non-represented employees are 3% below market median, SUP employees

are 3% above market median, and trades and technical employees are 1% above market median. Hydro One submitted that the OEB should look at Hydro One's position in relation to market median based on this total cash basis (base pay, short-term incentives, and lump sum incentives).

Hydro One argued that the reason the OEB should consider pensions separately is not only because it is what drives Hydro One to be above P50 but because study methodologies consider the value of the pension plan (which is significantly higher than Hydro One's peer group) instead of its actual cost to Hydro One. Hydro One submitted that the reasonableness of its cost forecast is what is at issue in this rates application.

Moreover, Hydro One argued that it had taken significant steps to keep pension costs manageable, specifically:

- Employee contributions are getting closer to 50/50 cost sharing.
- The non-represented defined benefit plan has been closed to new entrants and a new defined contribution plan has been introduced.
- For represented employees, in 2025, the early retirement threshold has moved from r82 to r85 and the pension formula has changed to high 5 from high 3 – both steps will reduce cost to the pension plan.

Hydro One argued that the results of its efforts is that rate-recoverable pension costs have declined over time and submitted that the OEB should give weight to its efforts to control pension costs and, importantly, consider pensions separately from Hydro One's total cash compensation levels in light of the above-noted considerations.

Hydro One submitted that if the OEB finds that Hydro One's compensation will be reduced, the following needs to be considered:

- a) The 2017 Mercer study included more compensation data such as share grants and lump sum payments. Although these additional benefits were included, Hydro One still trended lower than the previous study. For Hydro One's recent transmission rates proceeding, the OEB's decision stated "the OEB agrees that Hydro One's total compensation amounts are likely understated because not all items of Hydro One compensation were included therein." Hydro One noted that it is still trending lower now that these items are included in the study.
- b) Any consideration of Mercer's finding must take into account the three reductions already applied by Hydro One and set out in answer to SEC interrogatory 84, that is:

1. In June 2017, Hydro One reduced its 2018 pension OM&A costs by \$7.1 million due to the actuarial revaluation of pension expenses completed by Willis Towers Watson (see page 31 of Exhibit C1, Tab 1, Schedule 7);
2. In December 2017, Hydro One reduced its 2018 OPEB OM&A costs by \$1.9 million (see pages 5-6 of Exhibit Q, Tab 1, Schedule 1); and
3. In December 2017, Hydro One reduced its 2018 executive compensation OM&A costs by \$3.2 million. This consisted of \$2.5 million for three executives and \$0.7 million for its Board of Directors (see pages 5-6 of Exhibit Q, Tab 1, Schedule 1).

Hydro One noted that some parties have raised methodological issues with the Mercer study. In response, Hydro One noted that the OEB has consistently used studies by Mercer and has therefore previously accepted the methodologies used.

Hydro One concluded that as set out in SEC interrogatory 84, a reduction to Hydro One's distribution's OM&A costs based on the December 2016 study results, which placed Hydro One's compensation costs at 14% above market median, would be approximately \$17.5 million. After applying the above-noted three reductions, the net reduction would be \$5.3 million.

Hydro One also submitted that any reduction made by the OEB should not involve double-counting. Hydro One observed that in the OEB's most recent decision in regard to Hydro One's transmission rates, it noted that it "appreciates that a portion of total compensation costs are in budget amounts included in transmission capital projects", and since the OEB had already decided to make a reduction to the capital budget, this would have some compensation reduction impact. Hydro One submitted that unless the OEB makes no reduction to Hydro One's capital-related revenue requirement in this application, it should follow its approach in the recent transmission rate decision and not make a compensation-related capital reduction as suggested by Energy Probe, CCC and SEC, as this would result in double-counting.

Hydro One also noted that any compensation reductions ordered by the OEB in the future as a result of the Hydro One Accountability Act may overlap with above-noted reductions already applied by Hydro One as set out in SEC interrogatory 84, and there should not be double-counting between the Hydro One Accountability Act and reductions already applied.

Pension Costs

On September 14, 2017, the OEB released its *Report on the Regulatory Treatment of Pension and Post-Employment Benefit (OPEB) Costs* (the Pension Report). This Pension Report described the policy of the OEB for the regulatory treatment of the cost

of pension and OPEBs incurred by rate-regulated energy utilities in Ontario, and specifically addressed the manner in which those costs are recovered from customers.

The Pension Report established the use of the accrual accounting method as the default method on which to set rates for pension and OPEB amounts in cost-based rate applications. It required utilities that propose to set rates using a method other than accrual to support such a proposal with evidence that gives consideration to factors such as providing value to customers, fairness, intergenerational equity, and other principles and practices enunciated in this Pension Report.

Hydro One has proposed to recover approximately \$37 million in pension costs on a cash basis for the test period.

OEB staff supported Hydro One's proposal to recover its pension costs on a cash basis and its OPEB costs on an accrual accounting basis because Hydro One met the requirements of the Pension Report. OEB staff argued that the amount of pension costs being sought for the test period should be reduced to zero, or limited to the amount that it is obligated to contribute pursuant to its collective bargaining agreements, because the actuarial valuation that underpins the test period pension costs indicates that the pension plan is in a surplus position and therefore does not require any employer contributions to be made. OEB staff further argued that Hydro One currently has a variance account that will make them whole should the pension circumstances change during the term of the application.

CCC, CME, and AMPCO agreed with the submissions of OEB staff on this issue. Energy Probe submitted that the OEB should reduce to some extent the amount that Hydro One is seeking to recover for its pension cost because its own valuation shows that employer contributions are unnecessary due to a significant surplus in the pension plan. It also pointed out that Hydro One agreed to reconsider its pension costs in the Hydro One Remotes proceeding, and therefore there is no reason why it should not do the same in this proceeding. SEC submitted that given the collective agreement requirement that pension contributions not be less than employee contributions, Hydro One should be required to lower its contributions to the pension plan to equal that of its employees.

PWU submitted that no funding holiday should be taken for two main reasons. Firstly, the forecast of any continuing pension surplus is based upon a point in time forecast for which the underlying variables are constantly changing. Therefore, a reduction in contributions may cause the plan to swing back into a deficit position in the future thereby requiring special payments by the employer to the plan. Secondly, it noted that

Hydro One's ability to reduce its pension contributions is constrained by the provisions of the collective agreement.

SUP supported OEB staff's conclusion that the ongoing use of the cash method to recover pension costs for regulatory purposes is appropriate. SUP's position is that it is premature for the OEB to reduce Hydro One's pension contributions to zero for a five-year period because:

- Risk of market correction can negatively impact equity markets.
- A new actuarial report is due at the end of 2019, which will govern the majority of the application term.
- Impact of new pension funding rules is unknown.
- Management of pension funding is not only based on rate impacts; many other considerations exist.
- Surplus is not sufficient to cover both the employee and employer contributions over the five-year period.
- Variance account only deals with the non-capital portion of the annual contribution amounts.
- If pension contributions are ceased and then reintroduced in the next application, combined with amounts built up in the pension cost variance account, this would pose a risk for rate shock in the future.

Hydro One highlighted its commitment under its collective agreements to contribute at least an amount equal to the employee contributions and therefore argued its contributions cannot be reduced to zero. Hydro One further argued that new rules issued by the Financial Services Commission of Ontario (FSCO) in August 2018 make it extremely unlikely that it will be able to take a contribution holiday as its assets would have to outperform windup liabilities by more than \$2.7 billion and then further exceed windup liabilities by 5%. It also argued that pension costs should be viewed over a longer term to minimize the volatility in costs. Also a full funded holiday could result in the company having to make additional payments in the future (going concern / special payments) if assumptions or conditions change, which could also be perceived as intergenerational inequity.

Findings

The OEB finds that its ongoing concern about Hydro One's compensation costs being higher than comparable companies has not been satisfactorily addressed. This concern has been expressed in almost every OEB decision involving both the distribution and transmission costs of Hydro One for the last 10 years. In the last two distribution proceedings,¹⁶⁴ the OEB reduced Hydro One's proposed OM&A budget to account for high compensation costs relative to the industry. In the 2010 rates proceeding, the OEB made an OM&A envelope reduction for a number of reasons which included high compensation costs relative to market median. In the 2015 rates proceeding,¹⁶⁵ the OEB disallowed half of the 10% premium above market median.

Although the OEB acknowledges that Hydro One attempted to make some progress in both the unionized and non-unionized compensation areas, its compensation levels remain significantly above the market median. The latest Mercer compensation study, filed by Hydro One on April 20, 2017, concluded that Hydro One is positioned approximately 12% above the market median. In previous years, Hydro One's position has ranged from 10% above median in 2013 to 14% in 2016.

While the OEB understands the limitations associated with the collective agreements, it does not believe that sufficient progress has been made by Hydro One in the last few years to bring its compensation levels closer to market median. In fact, one could argue that the benchmarking results are getting worse (10% above median in 2013, 12% above median in 2017).

The difference between Hydro One's compensation budget in 2018 related to OM&A and the market median used in the Mercer study is estimated at \$17.5 million. SUP's suggestion in its final argument, repeated in Hydro One's reply argument, that the \$17.5 million should be reduced to correspond to a 7% premium over market median instead of 12% because the Mercer study identified a deadband of $\pm 5\%$, is invalid. The deadband simply means that the premium could be in the range of 7% to 17% with a mid-point of 12%. One should not look at only the favourable side of the symmetric deadband.

Hydro One argued in its reply argument that the OEB should look at its position relative to market median based on a total cash basis (i.e. including base pay, short-term incentives, and lump sum incentives, but excluding pension and benefits).¹⁶⁶ Hydro One

¹⁶⁴ EB-2013-0416 and EB-2009-0096.

¹⁶⁵ EB-2013-0416.

¹⁶⁶ P. 125.

submitted that, in such a case, Hydro One would be at market median. The OEB does not accept this argument. The comparison, as was rightly done in the Mercer study, should be based on total compensation since this is what ultimately affects the ratepayers.

Hydro One also argued that the 2017 Mercer study included more compensation data, such as share grants and lump sum payments, than previous studies. Again, it is the OEB's view that total compensation is what impacts the ratepayers regardless of what form this compensation takes.

Hydro One also claimed in its reply argument that "should the Board seek to utilize Mercer's finding that Hydro One's compensation is trending at 12% above market median in calculating any human resource revenue requirement reduction, the annual reduction calculation must take into account the three reductions already applied by Hydro One and set out in answer to SEC interrogatory 84."¹⁶⁷ The OEB agrees that these reductions should be taken into account.

The OEB will disallow the full \$17.5 million premium over market median as there is no compelling reason for the ratepayers to continue to be burdened with this unreasonable compensation level after many years of the OEB finding issue with Hydro One's compensation. However, given that Hydro One has already made compensation related reductions totaling \$12.2 million following the Mercer study, and the OEB is making a further reduction of \$0.5 million associated with the Hydro One Accountability Act (see Issue 42), the net reduction to Hydro One's OM&A related to compensation is \$4.8 million. This may be amended as a result of the Directive issued by the Management Board of Cabinet on February 21, 2019, as discussed under Issue 42.

3.6.4 Presentation of Compensation Costs (Issue 41)

Issue 41. Has Hydro One demonstrated improvements in presenting its compensation costs and showing efficiency and value for dollars associated with these costs (excluding executive compensation)?

Submissions regarding efficiency and value for compensation costs are made under Issue 40. This issue therefore addresses submissions as to whether Hydro One has demonstrated improvements in presenting its compensations costs.

¹⁶⁷ P. 186.

On December 20, 2016, in the transmission rate proceeding, Hydro One filed Undertaking J10.2, which provided a breakdown of transmission-only compensation costs. In its February 16, 2017 reply argument for that proceeding, Hydro One agreed to file a table similar to that contained in Undertaking J10.2 in its next transmission and distribution rates applications.¹⁶⁸

OEB staff submitted that Hydro One does not yet appear to have a consistent template for presenting all of the information outlined by the OEB, and this often makes for a confusing variety of tables. OEB staff submitted that Hydro One should develop a standardized presentation of compensation costs that meets all of the OEB's stated requirements, and which would be used in future transmission and distribution filings.

Findings

The efficiency and value of compensation costs are addressed under Issue 40. Regarding information presentation, the OEB agrees with OEB staff that a consistent template for presenting compensation costs is required and directs Hydro One to develop such a template based on the direction provided by the OEB in the last transmission rate proceeding. This template is expected to be used by Hydro One to present compensation costs in all future rebasing applications.

3.6.5 Executive Compensation (Issue 42)

Issue 42. Is the updated executive compensation information filed by Hydro One in the distribution proceeding on December 21, 2017 consistent with the OEB's findings on executive compensation in the EB-2016-0160 Transmission Decision?

On August 3, 2018, the OEB issued a letter advising that it would be providing direction to the parties in relation to addressing the implications of the *Hydro One Accountability Act, 2018* (Hydro One Accountability Act or HOAA), which among other things amended section 78 of the *Ontario Energy Board Act, 1998* (OEB Act) by adding the following new subsection (5.0.2) effective August 15, 2018:

In approving or fixing just and reasonable rates for Hydro One Limited or any of its subsidiaries, the Board shall not include any amount in respect of compensation paid to the Chief Executive Officer and executives, within the meaning of the *Hydro One Accountability Act, 2018*, of Hydro One Limited.

¹⁶⁸ EB-2016-0160 – Hydro One Reply submission, February 16, 2017, at p.83, para. 277.

Accordingly, the OEB did not require OEB staff, intervenors or Hydro One to make any submissions on matters pertaining to executive compensation as part of their closing submissions being filed in August.

On September 26, 2018, the OEB issued Notice of Motion Hearing and Procedural Order No. 9 which established a process for addressing the requirements of section 78(5.0.2) in the current proceeding. The OEB stated that it would begin that process by requiring a submission from Hydro One setting out its proposal for adjusting its requested revenue requirement to conform with the HOAA. The OEB stated its expectation that the Hydro One submission would include, at a minimum:

- An explanation of the impact of section 78(5.0.2) on Hydro One's distribution revenue requirement, having regard to the definitions of "compensation" and "executive" in the Hydro One Accountability Act, including all relevant calculations. The OEB expects Hydro One to reconcile this impact with the amounts excluded from executive compensation in Exhibit Q, filed by Hydro One on December 21, 2017, in response to the OEB's Decision in Hydro One's 2017-2018 Transmission revenue requirement proceeding.¹⁶⁹
- Evidence that identifies the executive positions captured by the section and the total compensation for this group.

On October 26, 2018, Hydro One filed its evidence on these matters and on November 21, 2018, it filed its responses to related interrogatories from OEB staff and intervenors. OEB staff and intervenors filed their submissions on November 30, 2018 and Hydro One filed its reply submission on December 6, 2018.

Hydro One's interpretation of the HOAA was that it only applied to executives employed by Hydro One Limited (three executives), and not those employed by Hydro One Inc. (eight executives) or Hydro One Networks Inc. (20 executives). Hydro One submitted that of the three executives employed by Hydro One Limited, only two had costs allocated to the distribution business. However, Hydro One voluntarily proposed that in addition to those two positions, the cost associated with the rest of the Hydro One Executive Leadership Team (ELT) (four more positions) should be excluded from the revenue requirement.

Hydro One's estimate of the total cost associated with the ELT which is allocated to the distribution business is \$6.6 million (\$3.0 million OM&A and \$3.6 million capital).

¹⁶⁹ EB-2016-0160.

However, if the reduction made by Hydro One before the HOAA (Exhibit Q) is taken into account, the net reduction would be \$4.1 million (\$0.5 million OM&A and \$3.6 million capital).

OEB staff submitted that the \$4.1 million reduction proposed by Hydro One was reasonable and should be accepted by the OEB, subject to OEB staff's concern with Hydro One's proposed allocation of the \$4.1 million between capital and OM&A. OEB staff questioned why the capital component (representing about 88%) was so high given that the 2018 overhead capitalization rate shown in the evidence in this proceeding was 12%.¹⁷⁰ OEB staff submitted that in the absence of a satisfactory explanation by Hydro One for its departure from the overhead capitalization rate it used in its application, the OEB should require Hydro One to use the 12% overhead capitalization rate when allocating the reduction between capital and OM&A.

SEC submitted that all executive compensation costs that have been allocated to Hydro One's distribution business should be excluded from Hydro One's distribution rates, not just the six executives proposed by Hydro One. SEC submitted that the fact that certain executives are employed by Hydro One Limited, Hydro One Inc. or Hydro One Networks Inc. is not relevant. SEC stated that the purpose of the legislation is clear; ratepayers should not be required to have included in rates Hydro One's executive compensation costs. SEC referred to statements made in the Legislative Assembly and in the recent *Ontario Economic Outlook and Fiscal Review* which SEC claimed to support its interpretation.

SEC submitted that, based on its argument, the reduction should be \$11.3 million (\$4.1 million OM&A and \$7.2 million capital). This is net of the reduction made before the HOAA (Exhibit Q).¹⁷¹

CME supported SEC's position, submitting that executive compensation, as defined in the HOAA, should be excluded completely from rates.

In its reply submission, Hydro One responded to OEB staff's concern regarding the allocation of compensation costs between capital and OM&A. Hydro One explained that the 12% rate which OEB staff referred to is actually the overhead capitalization rate, which is a function of total overhead dollars to be capitalized in the year divided by the forecast capital spending for the year. Hydro One stated that this rate is not used in determining the amount of Common Corporate Costs to be capitalized. The rate to be

¹⁷⁰ EB-2017-0049 Ex. D1, Tab 3, Sch. 1, p. 2 Filed: 2017-03-31.

¹⁷¹ EB-2017-0049 Exh. I, Tab 42, Sch. SEC-S104.

used for ELT compensation is approximately 55% as shown in Hydro One's evidence resulting from the Black and Veatch study.¹⁷²

Hydro One further explained that this capital allocation percentage should be applied to the total ELT compensation of \$6.6 million, rather than the \$4.1 million remaining after Exhibit Q reductions, as Exhibit Q reductions were only applied to OM&A and not capital. On this basis, Hydro One stated that the appropriate breakdown of the remaining \$4.1 million of executive compensation to be removed from rates is the proposed \$0.5M million OM&A and \$3.6 million capital.

With respect to the submissions of SEC and CME, Hydro One submitted that they misinterpreted the new section 78(5.0.2) of the OEB Act in taking the position that all executive compensation, irrespective of whether these executives are employed by Hydro One Limited, Hydro One Inc. or Hydro One Networks Inc., should be excluded from the revenue requirement. Hydro One argued that, in taking this position, SEC and CME had ignored the clear language of the legislation, which limits the compensation to be excluded to executives in Hydro One Limited.

Hydro One argued that SEC was suggesting that the OEB should disregard the wording of section 78(5.0.2) and instead interpret statements made in the Legislative Assembly. Hydro One submitted that statements made in the Legislature may only be used if the legislation is ambiguous, which is not the case in the present situation.

Hydro One concluded that its proposed approach is both fair and reasonable as it has proposed a reduction of executive compensation that goes beyond the requirements of section 78(5.0.2) to include all members of the ELT, instead of restricting it to only the executives of Hydro One Limited. Accordingly, Hydro One submitted that the appropriate additional reduction to compensation necessary to comply with the HOAA and section 78(5.0.2) of the OEB Act is \$4.1 million (a reduction of \$0.5 million to OM&A and \$3.6 million to capital).

Hydro One also argued that if the Mercer study market median is used as a guide for an envelope reduction to the level of compensation to be recovered in rates, then the reductions to compensation provided since the study was completed should offset this amount. Hydro One noted that the variance between the Mercer study market median and Hydro One compensation is \$17.5M, with the appropriate offsetting reductions related to Hydro One Accountability Act as well as the reductions included throughout the application process shown in Table 14 below:

¹⁷² Exh D1, Tab 3, Sch 1.

Table 14
Hydro One – Net Mercer Median Reduction (Test Year)

	\$M
Mercer Median – Hydro One variance (SEC-106)	17.5
2018 Pension OMA	(7.1)
2018 OPEB OMA	(1.9)
2018 Exec Comp (Exh Q) – Dec 2017	(3.2)
2018 Exec Comp (HOAA) – Oct 2018	(0.5)
Total reduction to OMA envelope	4.8

Hydro One submitted that if the OEB is contemplating a further reduction to the amount of compensation recovered in rates based on the Mercer benchmark median, the appropriate amount would be \$4.8 million as set out in Table 14 above as this amount reflects the reductions already applied in Hydro One’s application as well as the amount required to comply with the HOAA.

Findings

Interpretation of Section 78(5.0.2) of the OEB Act

The OEB finds that Hydro One’s interpretation of section 78(5.0.2) of the OEB Act is reasonable. In the OEB’s view, it is clear that section 78(5.0.2) by its terms requires the OEB to exclude from rates only compensation paid to the Chief Executive Officer and executives of Hydro One Limited. In order to interpret section 78(5.0.2) of the OEB Act in the way suggested by SEC, the OEB would have to ignore or give no meaning to the phrase “of Hydro One Limited” at the end of the section. The OEB is not persuaded that the statements made in the Legislative Assembly or the excerpt from the 2018 *Ontario Economic Outlook and Fiscal Review* relied on by SEC are such as to compel the OEB to interpret section 78(5.0.2) without regard to that phrase.

The OEB accepts Hydro One’s proposal to exclude the rest of its Executive Leadership Team costs from the revenue requirement.

Based on the above finding, but subject to the OEB’s comments below regarding the Directive issued by the Management Board of Cabinet on February 21, 2019, the OEB agrees with Hydro One that the compensation amounts to be excluded from the 2018 revenue requirement should be \$0.5 million in OM&A and \$3.6 million in capital. The capital amounts to be excluded in 2019 to 2022 are \$3.7 million, \$3.7 million, \$3.8 million, and \$3.9 million respectively.

The OEB finds that the rationale provided by Hydro One regarding the methodology used to determine the breakdown of the cost reduction between OM&A and capital is reasonable.

The total compensation related amount being disallowed (\$17.5 million) is based on Hydro One's compensation levels for all staff being higher than the market median, as determined in the Mercer study. In its reply submission, Hydro One stated that "The median is not impacted because non-represented positions in the Mercer compensation study are on average within 1% of the market median. Removing compensation costs that are at or near market median will have little impact on the median amount and therefore, will not have an impact on the difference between the median benchmark and actual compensation costs." The OEB agrees. Therefore, the determination of whether section 78(5.0.2) applies to Hydro One Limited only or to other subsidiaries should not materially affect the amount of compensation above the median (\$17.5 million). It would only affect how this amount is distributed among the various categories as shown in Table 14 above.

The February 21, 2019 Directive

On February 21, 2019, the Management Board of Cabinet issued a Directive under the authority of the HOAA (the Directive).¹⁷³ According to its Outline, the Directive sets out certain compensation-related requirements for the Chief Executive Officer (CEO), other executives and board of directors of Hydro One Limited and its subsidiaries, which Hydro One Limited must follow when developing its board and executive compensation framework (Compensation Framework) under the HOAA. The Directive requires Hydro One Limited to establish caps on executive compensation in the Compensation Framework – not only for CEO compensation, but also for executives in Hydro One Limited and its subsidiaries, and for the members of the Board of Directors. The Compensation Framework was to be filed by February 28, 2019, and requires Management Board of Cabinet approval. For the reasons discussed below, the OEB requires Hydro One to address this matter as part of its draft rate order filing.

Given that the Directive makes the caps on executive and director compensation applicable to executives and directors of Hydro One Limited and its subsidiaries, there may be a need for further reductions in compensation costs in the final OEB-approved revenue requirement. The OEB notes that in its November 21, 2018 response to OEB staff Supplementary Interrogatory Staff-S2,¹⁷⁴ Hydro One identified 18 executive positions that were not members of the Executive Leadership Team, and in respect of which compensation costs were allocated to the distribution business. It appears that the compensation caps to be included in the Compensation Framework would be

¹⁷⁴ EB-2017-0049 Exh. I, Tab 42, Sch. Staff-S2.

applicable to those positions and to the compensation of any Board of Directors members whose compensation is allocated to the distribution business.

In order to determine appropriate values for compensation and Board of Directors costs in this proceeding, the OEB requires information from Hydro One on the impact of the Directive on the amounts currently requested in those areas. The OEB does not intend to suspend this proceeding to allow for the Compensation Framework to be finalized. Rather, the OEB requires Hydro One to file its calculations and relevant supporting evidence and submissions in this regard in conjunction with its draft rate order. The draft rate order shall include any further reductions in compensation costs that Hydro One considers necessary as a result of the Directive. OEB staff and intervenors may make submissions in response to Hydro One's filing in conjunction with their comments on Hydro One's draft rate order, and Hydro One may then reply to those submissions. The OEB may give further procedural directions in that regard should it consider it necessary to do so.

As noted above, the Compensation Framework was to be filed on February 28, 2019, and requires Management Board of Cabinet approval. Accordingly, it cannot be known with certainty at this time that the treatment to be proposed in the current proceeding will ultimately be approved by the Management Board of Cabinet. If necessary, the OEB may establish a process for adjusting any reductions in executive and Board of Directors compensation to adhere to the final Management Board of Cabinet-approved Compensation Framework. The OEB does not consider it necessary to establish that process at this time.

3.6.6 Common Corporate Allocation Methodologies (Issue 43)

Issue 43. Are the methodologies used to allocate Common Corporate Costs and Other OM&A costs to the distribution business for 2018 and further years appropriate?

Hydro One stated that it allocates common corporate costs and other OM&A costs to its distribution and transmission businesses and to each Hydro One affiliate based on clearly articulated shared functions and services and an established cost allocation approach based on cost causality principles.¹⁷⁵

Hydro One added that since 2004, in connection with each cost of service application, it had commissioned a study by Black and Veatch to recommend a best practice

¹⁷⁵ Exh. C1 Tab 4 Sch. 1, p. 3 Filed: 2017-03-31.

methodology to allocate common corporate costs among the business entities using the common services. Hydro One stated that the adopted methodology represents the industry's best practices, identifying appropriate cost drivers to reflect cost causality and benefits received. Hydro One further stated that as part of the 2016 Black and Veatch study, the cost drivers used to allocate the common corporate costs in the previous distribution proceeding were updated to incorporate current information.

Hydro One submitted that the results of the 2016 Black and Veatch study are a reasonable and equitable approach to the assignment of common corporate costs among the business entities using the common services. Hydro One noted that this methodology is based on the R. J. Rudden Associates Study that the OEB had accepted in a previous rate decision.¹⁷⁶

OEB staff submitted that Hydro One has provided sufficient justification to demonstrate that the methodologies used to allocate common corporate costs and other OM&A costs to the distribution business for 2018 and further years are appropriate. As noted under Issue 31 a portion of common corporate costs related to management of non-regulated activities has not been allocated to the regulated businesses; which is in keeping with the decision in the transmission proceeding.¹⁷⁷

Findings

The OEB finds that the allocation methodology, developed by Black and Veatch, and approved by the OEB in Hydro One's previous Transmission case, is acceptable for the plan term. The OEB expects this issue to be examined in detail when Hydro One files a single application for distribution rates and transmission revenue requirement for the period 2023 to 2027.¹⁷⁸

¹⁷⁶ RP-2005-0020/EB-2005-0378 and EB-2016-0160.

¹⁷⁷ EB-2016-0160.

¹⁷⁸ Letter from the OEB to Hydro One Networks March 16, 2018 expressed the expectation that rates for Hydro One's distribution and transmission businesses would be considered in a single application.

3.7 REVENUE REQUIREMENT

3.7.1 Depreciation Expense (Issue 44)

Issue 44. Is Hydro One's proposed depreciation expense for 2018 and further years appropriate?

Hydro One's total depreciation and amortization expenses are summarized in the application in the table below:¹⁷⁹

Table 15
Hydro One Proposed Depreciation and Amortization Expenses

Description	Historic				Bridge	Test				
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total Depreciation Expenses	313.0	336.2	349.0	359.8	362.6	379.3	401.6	414.3	434.2	450.5
Total Amortization Expenses	8.5	11.1	10.5	12.0	17.8	17.3	16.2	18.8	18.6	17.4
Exclude Other Regulatory Amortization	0.5	1.1	1.9	3.2	3.7	4.1	4.3	4.5	4.7	4.9
Total	321.0	346.2	357.6	368.7	376.7	392.6	413.5	428.6	448.1	463.0

Hydro One stated that in its 2005 distribution rates proceeding,¹⁸⁰ its depreciation rates had been approved by the OEB based on an independent depreciation study completed by Foster Associates Inc. (Foster Associates) dated June 2005. Hydro One added that costs flowing from the depreciation study were accepted for the purpose of establishing Hydro One distribution's rates revenue requirement in 2006.¹⁸¹

Hydro One noted that in 2013, Foster Associates had conducted an additional depreciation study which recommended continuation of the historical depreciation rates for purposes of the rates revenue requirements for the years 2015 to 2017, and the OEB had accepted this approach.¹⁸²

¹⁷⁹ Exh. C1, Tab 6, Sch. 1, p. 3, Table 1 Updated: 2017-06-07.

¹⁸⁰ RP-2005-002/EB-2005-0378.

¹⁸¹ Exh. C, Tab 6, Sch. 1, p.1 Updated: 2017-06-07.

¹⁸² EB-2013-0417.

In 2016, Hydro One requested that Foster Associates prepare a new depreciation study covering Hydro One's distribution and common assets for the 2018 – 2022 period. Using Hydro One's historically approved depreciation rates, total depreciation and amortization expense for the 2018 test year would be \$392.6 million as provided in the above table.

However, Hydro One stated that if the depreciation rates found in the 2016 Foster Associates study were adopted, the depreciation and amortization expense for the test year 2018 would increase by \$21.9 million to \$414.5 million. As such, Hydro One stated that the application reflects the continued use of the 2013 depreciation study to calculate depreciation costs in 2018-2022.

Hydro One justified this approach on the basis that the Foster Associates study is based on the expected remaining life of an existing pool of assets at a point in time. Future capital spending will result in additions to existing pools of assets. These additions are reasonably expected to change the average expected remaining life of some or all of these pools of assets, and the applicable depreciation rates. These changes can result in volatility in depreciation expense.

Hydro One noted that the 2016 Foster Associates study would create, if implemented, increased depreciation rates and expense over the 2018 to 2022 rate setting period. However, planned capital expenditures over the five-year term of the application may result in an increase in the average remaining life of these asset pools, requiring a future decrease in depreciation rates and expense. Therefore, Hydro One stated it had decided to maintain its existing depreciation rates. Hydro One stated that its decision was supported by Foster Associates as well as its external auditor.

OEB staff submitted that Hydro One's proposed depreciation expense for 2018 and further years is appropriate as it is justified by the assessments undertaken and helps to mitigate customer rate increases.

The intervenors did not raise concerns with Hydro One's depreciation expense.

Findings

The OEB finds that Hydro One's proposed depreciation expenses are reasonable, subject to any adjustments resulting from the findings throughout this Decision and Order. The OEB notes that both OEB staff and intervenors did not oppose Hydro One's proposal.

3.7.2 Other Revenues (Issue 45)**Issue 45. Are the proposed other revenues for 2018 – 2022 appropriate?**

Hydro One provided information on its historical external revenues as shown in the table below.¹⁸³

Table 16
Hydro One Original External Revenues Proposal

(\$ Millions)

Description	Historic					Bridge	
	2014	2015		2016		2017	
	Actual	Actual	Approved	Actual	Approved	Forecast	Approved
Regulated Revenues	25.4	37.7	39.4*	51.6	40.4*	39.0	42.5*
Unregulated Revenues	6.5	6.5	6.7	7.0	6.6	6.8	6.5
Sub-Total External Revenue	31.9	44.2	46.1	58.6	47.0	45.8	49.0
Standard Supply Service Charge	3.7	3.7	3.6	3.6	3.7	3.9	3.7
Total External Revenue and Other	35.6	47.9	49.7	62.2	50.7	49.7	52.7

*Updated approved amounts reflect the EB-2013-0416 Draft Rate Order decision for miscellaneous charges revenue and the EB-2015-0141 decision for pole attachment revenue.

Hydro One updated its forecast External Revenue as a result of updates provided during the oral hearing.¹⁸⁴ These updates are incorporated in the table below:

¹⁸³ Exh E1, Tab 1, Sch. 2, p. 2 Updated: 2017-06-07.

¹⁸⁴ Undertaking J 11.2.

Table 17
Hydro One Updated External Revenue Proposal
(\$ Millions)

Description	Test				
	2018	2019	2020	2021	2022
	Forecast	Forecast	Forecast	Forecast	Forecast
Regulated Revenues	39.3	40.2	40.4	41.3	41.6
Unregulated Revenues	3.8	3.8	3.8	3.8	3.9
Sub-Total External Revenue	43.1	44.0	44.3	45.1	45.4
Standard Supply Service Charge	3.9	3.9	4.0	4.0	4.0
Total External Revenue and Other	47.0	47.9	48.2	49.1	49.4

Hydro One stated that external revenues are generated by charging specific service charges for miscellaneous services, or from other external revenues not associated with OEB-specific service charges. External revenues not related to specific service charges are based on an estimated cost of providing the external work calculated using standard labour rates, equipment rates, material surcharge and overhead rates as well as forecast volumes that Hydro One believes are reasonable. These external revenues offset Hydro One's distribution revenue requirement, reducing the required revenue to be collected from ratepayers.¹⁸⁵

Findings

The OEB's findings on external revenue related to Specific Service Charges are under Issue 54. The OEB ordered Hydro One to update its external revenue to reflect its findings on Specific Service Charges as part of the draft rate order.

With respect to the remaining external revenues and revenue offsets, the OEB notes that these were not contested issues and on that basis the OEB accepts Hydro One's proposals.

¹⁸⁵ Argument-in-chief, pp. 141-144.

3.8 LOAD AND REVENUE FORECAST

3.8.1 Load and Customer Forecast (Issues 46 and 47)

Hydro One filed a load forecast on June 7, 2017 using data available in January 2017. Subsequently, Hydro One prepared a partial update of the application in December 2017. In response to an OEB staff interrogatory,¹⁸⁶ Hydro One filed an updated load forecast on February 12, 2018. Hydro One is requesting approval of this last load forecast, which was updated to use 2017 actual weather-normal load and the latest economic information for 2018 to 2022. Hydro One submitted that its customer and load forecasts are a reasonable reflection of the energy and demand requirements for the 2018 to 2022 period.

Hydro One's distribution load and number of customers forecast¹⁸⁷ is shown in the following Table:

Table 18 Load and Customer Forecast

Year	GWh Delivery Forecast	Distribution Customer Count
2018	35,055	1,297,878
2019	34,619	1,305,398
2020	34,543	1,312,936
2021*	35,381	1,380,394
2022*	35,357	1,388,694

* The figures for 2021 and 2022 include the impact of integrating the Acquired Utilities into Hydro One Distribution.

¹⁸⁶ Exh. I-46-Staff-219.

¹⁸⁷ Exh E1, Tab 2, Sch 1, Table 3 Updated February 12, 2018 in Exhibit I-46-Staff 219.

Load Forecast

Hydro One submitted that its load forecast methodology is appropriate. Hydro One stated that it “uses a number of methods, such as econometric models, end-use models, and customer forecast surveys”¹⁸⁸ in the preparation of its forecast. These consist of a monthly econometric model, two annual econometric models, and an end-use model.

Hydro One noted that its load forecasting methodology has been found appropriate by the OEB in Hydro One proceedings since 2005 and has proven to accurately forecast load in the past. In its application, Hydro One provided a comparison of its load forecasts from 1997 to 2016 to the weather-corrected actual load,¹⁸⁹ to demonstrate the accuracy of its forecasting methodology. Hydro One indicated that similar methods are used by major utilities throughout North America and its methodology includes the latest Conservation and Demand Management (CDM) figures available from the IESO, as well as the latest consensus forecast inputs to the load forecasting models.¹⁹⁰

OEB staff submitted that while the output of the current load forecasting methodology is reasonable, there are areas which could be improved; for example, the model results suggest that the embedded LDCs may not be sensitive to heating degree days, which are included as a variable in the model.

OEB staff also expressed concern about the use of the heating degree days at Pearson airport. OEB staff argued that it would have been more appropriate for Hydro One to subdivide its service area geographically, and perform a regression for each area using data from a more locally appropriate weather station. BOMA submitted that Hydro One should be directed to divide the province into weather regions rather than continue to use Pearson airport.¹⁹¹

Hydro One explained that it already utilizes weather data from different geographic areas in developing the delivery point forecasts using the Electric Power Research Institute (EPRI)'s Hourly Electric Load Model regression.¹⁹² Hydro One maintained that for the purpose of the econometric forecasting models, a single aggregate model is preferred as it benefits from the regularities that exist at the aggregate level.

¹⁸⁸ Exh E1, Tab 2, Sch. 1, p.1 Updated 2017-06-07.

¹⁸⁹ Exhibit E1-2-1, page 3, 4.

¹⁹⁰ Argument-in-chief, p. 145.

¹⁹¹ BOMA Submission, page 44.

¹⁹² Hydro One Reply Argument, page 138.

OEB staff submitted that while Hydro One has continued to use a proven methodology, it has done so without sufficient consideration of the continued applicability of the inputs and explanatory variables.

Hydro One disagreed that it had not sufficiently considered the continued applicability of the inputs and explanatory variables stating that as an integral part of updating its forecast models, it considers their continued applicability.

VECC argued that the updated retail load forecast for 2018 is too low as it incorporates lower growth than the forecasts used in the initial application despite higher economic and population growth forecasts. VECC submitted that volumetric forecasts should be increased to reflect those higher economic and population growth forecasts. VECC noted that the updated load forecast, which incorporated actual 2017 information,¹⁹³ was lower than the original forecast, despite a more positive economic outlook.¹⁹⁴ VECC submitted that the updated retail load forecast for 2018 should be revised upwards, at a minimum to the 2018 value used in the original application, and that the remaining years be revised upwards accordingly.¹⁹⁵ VECC noted that the same concern applied to the embedded customers.¹⁹⁶

Hydro One responded that the 2017 actual volume was lower than forecast, while the actual economic indicators were higher than forecast. This had the effect of reducing the economic indicators elasticity of change in energy volume, which in turn resulted in a lower volumetric forecast going forward.¹⁹⁷

CDM Adjustment to Load Forecast

Hydro One submitted that its approach to adjusting the load forecast for CDM is appropriate. Hydro One noted that its methodology includes the latest CDM figures available from the IESO.

OEB staff submitted that Hydro One's forecast of CDM savings is appropriate.

¹⁹³ Exh I, 46-Staff-219.

¹⁹⁴ VECC Submission, page 46.

¹⁹⁵ VECC Submission, page 47.

¹⁹⁶ VECC Submission, page 47.

¹⁹⁷ Hydro One Reply Argument, page 143.

VECC submitted that Hydro One's load forecast methodology incorporates unreliable estimates of historic CDM¹⁹⁸ based on estimates, not actual verified results.¹⁹⁹ VECC noted that other Ontario distributors have obtained utility-specific CDM results for the same period,^{200 201 202 203 204} and questioned why Hydro One was unable to obtain similar information. VECC added that Hydro One is unable to break down the total CDM savings in the load forecast to show the impact each year of only its energy efficiency programs. VECC asserted that this level of detail is required in order to establish the appropriate LRAMVA thresholds for each year.²⁰⁵

Hydro One responded that verified energy efficiency program results are not available from the IESO for the period 2006-2010. Furthermore, the energy efficiency target program information is only provided by the IESO up to 2020, which is not sufficient for this application covering the period up to 2022.²⁰⁶ Hydro One noted that in order to develop a load forecast based on a consistent value for total CDM impact over the full historical and forecast periods, it used its share of the total CDM savings in the IESO's Ontario Planning Outlook. Hydro One stated that it has continued to use the same approach to CDM as previously approved by the OEB for Hydro One.

Hydro One stated that its load forecasting methodology results in the deduction of its share of the IESO's Ontario Planning Outlook total forecast CDM (both energy efficiency program and codes & standards amounts) from its gross load forecast. Hydro One argued that while its energy efficiency program target amounts are not specifically delineated in the IESO's Ontario Planning Outlook's total CDM forecast, these amounts are a portion of the forecast of the total CDM amount, and therefore are implicitly included in Hydro One's load forecast. Hydro One concluded that the method it uses for incorporating CDM is a technically sound and efficient approach that has provided accurate load forecasts in the past.

¹⁹⁸ VECC Submission, page 43.

¹⁹⁹ Exh I, 42-VECC-75 d).

²⁰⁰ EB-2017-0039, Exhibit 3, Attachment A.

²⁰¹ EB-2017-0071, Exhibit 3, page 12.

²⁰² EB-2015-0100, Exhibit 3, page 12.

²⁰³ EB-2016-0105, Exhibit 3, page 10.

²⁰⁴ EB-2015-0110, Exhibit 3, page 9.

²⁰⁵ VECC Submission, page 49.

²⁰⁶ Hydro One Reply Argument, page 144.

Customer and Connection Counts

VECC accepted the approach of using the forecast increase of households in Ontario, and relating that to increases in Hydro One customer numbers.²⁰⁷ However, VECC took issue with the methodology for establishing the relationship between Hydro One residential customer additions and Ontario household additions. Hydro One calculated the forecasted 2018 residential customer count increase as a percentage of the 2018 forecasted Ontario housing additions, and used that percentage to forecast all years out to 2022. Hydro One calculated that its residential customer additions are 13.6% of Ontario household additions.

VECC submitted that a historic average of the relationship would be more appropriate. Using an average of the period 2014 to 2016, VECC arrived at a ratio of 16.6%, and using an average of 2014 to 2017 (where 2017 was partially actual), VECC arrived at a ratio of 15.9%.²⁰⁸ VECC submitted that the ratio of 15.9% is appropriate, not the 13.6% used by Hydro One.

Hydro One submitted that VECC's proposal is not appropriate as it ignores the change in economic conditions.²⁰⁹ Hydro One noted that the use of 15.9% as suggested by VECC would result in a forecast of residential customer changes for 2018 to 2022 that is higher than the actual 2017 increase in number of residential customers. Hydro One argued that, given that the drivers of customer growth are decreasing over the period, it would be unreasonable to assume the change in number of customers for 2018 to 2022 would be higher than the value for 2017. In addition, Hydro One noted that the difference between Hydro One's proposed change in number of customers and that proposed by VECC would be less than 1,400 in any given year, which represents a negligible difference of 0.1% in Hydro One's residential customer base.²¹⁰

VECC submitted that despite the higher economic growth now forecasted, Hydro One did not change its value for the long-run annual change in total number of retail general service customers. VECC submitted that the forecasted higher growth in gross domestic product (GDP) should lead to a higher long run annual change in customers. VECC submitted that Hydro One should be directed to address this issue in its next load forecast.²¹¹

²⁰⁷ VECC Submission, page 38.

²⁰⁸ VECC Submission, page 40.

²⁰⁹ Hydro One Reply Argument, page 140.

²¹⁰ Hydro One Reply Argument, page 141.

²¹¹ VECC Submission, page 42.

Hydro One noted that its methodology for forecasting the general service customer count is tied to GDP growth. The 2017 actual change in number of customers was lower than forecast, while the actual GDP was higher than forecast. This had the effect of reducing the GDP elasticity of change in general service customers, which in turn resulted in a lower forecast for general service customers going forward.²¹²

Load Forecast Update

Hydro One proposed to provide an updated customer and load forecast for 2021 and 2022 in its application for 2021 rates.²¹³ The proposed update to the load forecast is discussed under Issue 13.

Findings

The OEB accepts Hydro One's load forecast methodology for the purposes of setting rates for the 2018 to 2022 Custom IR term. This methodology has been used since 2005, and Hydro One provided evidence of the accuracy of its past forecasting. The OEB does require Hydro One to do further investigation on the use of weather data from multiple locations in the province and report back with its next rebasing application.

The OEB accepts the CDM adjustment for the purposes of the load forecast and setting rates. However, this methodology does not allow for the identification of the component of the load forecast for the energy efficiency programs specific to Hydro One, which is required for a lost revenue adjustment mechanism (LRAMVA). This is discussed in further detail under Issue 58.

Hydro One applied a percentage to a consensus²¹⁴ forecast of housing starts²¹⁵ net of demolitions²¹⁶ to determine the change in residential customers each year. This percentage is based on the past ratio of Hydro One's residential customer additions to Ontario household additions. The ratio used by Hydro One for its initial forecast was 15.1%, which was updated to 13.6% for the last customer forecast.

The OEB requires Hydro One to update its forecast number of residential customers and streetlight and sentinel light connections to reflect a change to this percentage from

²¹² Hydro One Reply Argument, page 142.

²¹³ Argument-in-chief, p.146.

²¹⁴ Global Insight (Nov 2017), Conference Board (Nov 2017), U of T (Aug 2017), C4SE (Jan 2017), CIBC (Dec 2017), BMO (Jan 2018), RBC (Sep 2017), Scotia (Jan 2018), TD (Dec 2017), Desjardins (Dec 2017), Central 1 (Dec 2017), National Bank (Jan 2018), Laurentian Bank (Aug 2017).

²¹⁵ Exh I, 46-Staff-219, p.5 and Exh I, 47-CME-80 a) iv).

²¹⁶ Exh I, 43-VECC-68 a) i).

Hydro One's proposed ratio of 13.6% to 15.4%. The revised 15.4% is to be used for all five years covered by the Custom IR term. This is the most recent ratio of 13.6%, averaged with the ratio of 17.2% from 2016 and 15.4% from 2015. The OEB finds that it is uncertain if the most recent change in the ratio will continue. The ratio fluctuated from 15.4% to 23.2% from 2012 to 2016, averaging at 18.0% or 9,207 customers per year over this period. Hydro One's proposed ratio of 13.6% is much lower than has been experienced in any year going back to 2012. The revised ratio of 15.4% will still result in customer growth per year from 2018 to 2022 that is lower on average than was experienced from 2012 to 2016.

Hydro One's explanation that there will be reduced spending on seasonal properties and more on condominiums in major cities, therefore less growth in Hydro One's service area, is a possible theory but not supported by evidence.

The change in the forecast number of residential customers flows through to residential rates, and will become more material with the transition to fully fixed rates for residential customers. Hydro One shall also recalculate the number of connections for the streetlight and sentinel light classes as a result of the new forecast for residential customers.

The OEB accepts Hydro One's explanation for the effect of the economic outlook on the forecast for general service customers. The OEB approves the forecast of customer numbers for all other classes. Hydro One stated that lower customer count growth at a time of higher GDP growth reduces the GDP elasticity of change, and that lower elasticity led to a lower forecast for change for general service customers than in the original forecast.

3.8.2 Adjustment to Load Forecast for Acquired Utilities (Issue 48)

Hydro One stated that the load forecast has appropriately accounted for the addition of the Acquired Utilities in 2021, as the customer and load forecast has been prepared using the same methodology, models and economic assumptions used to prepare the forecast for all of Hydro One's other customers.

Hydro One stated that for the years 2021 and 2022, the embedded load of Norfolk and Haldimand customers is removed from the Sub Transmission (ST) rate class and the residential and general service forecasts are shown in the corresponding acquired rate classes.

Hydro One went on to explain that Woodstock acquired rate classes would be handled similarly except that its "large user class forecast is combined with the Hydro One ST

rate class". Further, "For all the Acquired Utilities, the forecasts related to Street Light, Sentinel Light and USL classes are combined with the corresponding Hydro One Rate classes."²¹⁷

OEB staff submitted that the load forecast has appropriately accounted for the addition of the Acquired Utilities' customers in 2021. VECC also submitted that this treatment of Acquired Utilities' load is appropriate.

Findings

The discussion of the integration of the Acquired Utilities is included under Issue 56. The OEB has determined that rates will be set for the Acquired Utilities based on the Price Cap IR approach when the deferred rebasing period concludes. For this reason, no load forecast is required for the Acquired Utilities during the plan term. Hydro One shall remove the load for the Acquired Utilities from its load forecast for 2021 and 2022.

3.9 COST ALLOCATION AND RATE DESIGN

3.9.1 Cost Allocation (Issue 49)

Cost allocation is the process of dividing a utility's total costs amongst different customer classes as fairly as possible. The objective is to allocate costs in a way that reflects how each customer class uses the utility's services. Once the costs are allocated to each customer class, the rates are set to recover those costs. The OEB has developed a generic cost allocation model based on certain principles for use by electricity distributors. However, it is a distributor's responsibility to ensure any models used in its application appropriately reflect the specific circumstances of that distributor.

Hydro One stated that it used the OEB's cost allocation model to ensure that costs are allocated to the rate classes causing the costs. Hydro One noted that its cost allocation model continues to use modifications, previously approved by the OEB, necessary to accommodate Hydro One's specific circumstances related to the treatment of bulk distribution system assets and the use of certain density-based rate classes.

Hydro One further stated that the 2018 and 2021 cost allocation models reflect the proposed revenue requirement and rate base, as well as the charge determinants and rate class load profiles for these years. The 2021 cost allocation model was modified for the inclusion of six new rate classes for the Acquired Utilities, three for Norfolk and

²¹⁷ Argument-in-chief, p. 146.

Haldimand, and three for Woodstock. Each group of three new rate classes includes classes for residential, general service energy metered (GSe), and general service demand metered (GSd).²¹⁸

Hydro One filed load profiles that reflect hourly metered data results from existing Hydro One customers and acquired customers.²¹⁹ Hydro One explained that it used 2015 actual hourly smart meter data and interval meter data, and scaled the meter data for rate classes where smart/interval meter data was not available for all customers.²²⁰

OEB staff submitted that Hydro One's inputs to the cost allocation model are appropriate and the costs are appropriately allocated, subject to one concern.

OEB staff noted that in preparing the cost allocation models for 2018 and 2021, Hydro One applied the street light adjustment factor (SLAF) for primary distribution to both the primary connection count and the total number of customers. In addition, Hydro One applied the SLAF for line transformers to both line transformers and secondary connections. As part of a policy review, the OEB engaged Navigant Consulting (Navigant) to prepare recommendations on the cost allocation for streetlighting. In its report,²²¹ Navigant recommended no changes be made to the existing connection count for secondary distribution. The OEB adopted this recommendation.²²² OEB staff submitted that Hydro One's approach is not consistent with this policy.

In response to an OEB staff interrogatory, Hydro One stated that "its SLAF value of 8.48 is not significantly different than the derived value of 8 streetlights per connection", and as a result "does not result in any material change in the revenue-to-cost ratios for any of the rate classes". It went on to commit that "Hydro One will correct this error in the draft rate order phase of this application".²²³

OEB staff agreed with Hydro One that the use of a SLAF value of 8.48 vs a daisy chain ratio of 8:1 for customer count and secondary connection count was not so material as to impact the review of the cost allocation. However, OEB staff submitted that Hydro One should correct its implementation of the SLAF as part of the draft rate order.

²¹⁸ Argument-in-chief, p. 147.

²¹⁹ Exh G1, Tab 3, Sch. 1, p. 3 Updated 2017-06-07.

²²⁰ Exh E1, Tab 2, Sch. 1, p. 17 Updated: 2017-06-07.

²²¹ Cost Allocation to Different Types of Street Lighting Configurations, EB-2012-0383, June 12, 2015.

²²² Letter to All Rate-Regulated Electricity Distributors Regarding Review of Cost Allocation Policy for Unmetered Loads EB-2012-0383, Issuance of New Cost Allocation Policy for Street Lighting Rate Class, June 12, 2015.

²²³ Exh I 49-Staff-237 a).

VECC noted that with the exception of the specific adjustments to the 2021 model made to accommodate the customers of the Acquired Utilities, Hydro One's methodology is the same as that in the OEB-approved 2017 cost allocation model. VECC however noted two errors that Hydro One committed to fix, the treatment of contributed capital and accumulated depreciation,²²⁴ and the SLAF.²²⁵

VECC took issue with Hydro One's failure to update the density factors from those used in the previous distribution rate application. Hydro One had responded to this concern by indicating that the density factors are driven by the relative costs in different density areas, and that there had been no fundamental changes in this regard.²²⁶ VECC submitted that while the relative costs in different density areas may not have changed, the relative customer density in different density areas may have changed. VECC expressed concerns that the values for some customer classes (Seasonal, GSe and GSd) are interpolated based on their customer densities relative to other classes, and if relative customer densities have changed this would affect the interpolated results.

VECC submitted that Hydro One should be directed to specifically review the density factors used in the cost allocation model prior to filing any future cost allocation model.²²⁷

Hydro One noted that the key drivers for cost from the density study filed in its 2013 distribution rates application²²⁸ are i) the relative distance between poles and customers within a sample area and to the nearest operating centre, and ii) the asset intensity or relative amount of fixed assets required to serve each sample area. Hydro One responded that neither the asset intensity nor the key distance drivers are expected to have changed, so it is reasonable to expect no material changes to the cost assignment. Hydro One submitted that another Density Study would be expected to yield similar results.²²⁹

VECC submitted that the costs associated with maintaining a higher level of reliability should be allocated to the commercial and industrial customer classes because they stand to benefit more from increased reliability.²³⁰

²²⁴ Exh I 49-Staff-236.

²²⁵ Exh I 49-Staff-237.

²²⁶ JT 3.18-12

²²⁷ VECC Submission, page 53.

²²⁸ EB-2012-0136.

²²⁹ Hydro One Reply Argument, page 149.

²³⁰ VECC Submission, page 57.

Hydro One argued that its programs will benefit all customers and therefore all customers should share the costs. Hydro One further submitted that incorporating VECC's suggestion into the cost allocation would represent a fundamental change to the principles underlying cost allocation, be impractical to implement and should be considered in a broader industry context.²³¹

Findings

The OEB accepts Hydro One's methodology for cost allocation, with the exception of the approach to the Acquired Utilities discussed under Issue 56. Hydro One used the OEB's cost allocation model, with modifications accepted by the OEB in Hydro One's last rate rebasing proceeding. Hydro One agreed in interrogatory responses to correct inputs for the treatment of contributed capital and accumulated depreciation and the streetlight adjustment factor. Hydro One is expected to make these amendments as part of the draft rate order process when it updates the cost allocation to reflect the OEB's findings throughout this Decision and Order.

The OEB will not order Hydro One to undertake another density study for its next rebasing rate application, unless one is required to support any changes to customer classes. The OEB is satisfied with Hydro One's response that there have been no material changes to the drivers of costs.

The OEB will not require a higher allocation of costs to commercial and industrial customers for capital programs that improve reliability or reduce the risk of failure. All customers benefit from improved reliability. There is insufficient information on the record to identify the relative benefits of these programs to different customer classes.

3.9.2 Billing Determinants (Issue 50)

Hydro One stated that its proposed billing determinants reflect its customer and load forecast and it is not proposing any changes to the type of billing determinants currently approved for its existing Hydro One rate classes.

Hydro One "proposes that customers from the Acquired Utilities currently in the Street Light and Sentinel Light classes will adopt the Hydro One billing determinants for those classes starting in 2021."²³²

²³¹ Hydro One Reply Argument, page 150.

²³² Argument in Chief, page 148.

OEB staff submitted that the proposed billing determinants are appropriate.

Findings

The OEB approves the proposed billing determinants for the existing Hydro One rate classes, subject to the amendment to the customer count forecast resulting from this Decision and Order.

Under Issue 56, the OEB has determined that the Acquired Utilities will not be integrated into the revenue requirement of the rest of Hydro One. For this reason, there is no need to create new rate classes for the customers of the Acquired Utilities or determine new billing determinants through a load forecast. The rates for the Acquired Utilities will be based on the Price Cap IR approach once the deferred rebasing period concludes.

3.9.3 Revenue-to-cost Ratios (Issue 51)

Hydro One proposed revenue-to-cost ratios for all rate classes within OEB-approved ranges. This required an adjustment from 0.57 to 0.63 to the revenue-to-cost ratio in 2018 for the Distributed Generation (DG) class because it fell outside the prescribed range. Hydro One proposed a corresponding decrease to the two rate classes with the highest revenue-to-cost ratios: the unmetered scattered load rate class, reducing its revenue-to-cost ratio from 1.15 to 1.09, and the seasonal rate class, which remained at 1.09 before and after the reduction.²³³ A further adjustment is proposed to the revenue-to-cost ratio of the DG class in 2019, with offsetting decreases to unmetered scattered load, seasonal, and R1 residential rate classes. In 2020, 2021 and 2022 all rate classes are in the prescribed ranges without further adjustments.

OEB staff submitted that the revenue-to-cost ratio adjustments as proposed by Hydro One are appropriate.

VECC stated that it had no issue with the approach taken in developing the 2018 and 2021 revenue-to-cost ratios, with the exception of concerns related to incorporation of the Acquired Utilities.

VECC raised concerns regarding the approach used by Hydro One for the 2019 and 2020 revenue-to-cost ratios that results in variations in rate increases even though the revenue-to-cost ratios are not changing. This variation arises because of the inclusion of

²³³ Exh H1, Tab 1, Sch, 1, p. 9 Updated 2017-06-07.

revenue from miscellaneous charges to determine total test year revenues before applying an adjustment factor. VECC noted that this approach differs from that of the cost allocation model where the increase only applies to the distribution revenues.²³⁴

VECC also took issue with Hydro One's basis for determining the 2019, 2020, and 2022 costs by customer class as it did not take changes in the load forecast into account, while the calculation of revenues does. VECC submitted that its concerns could be resolved by using the approach in Exhibit I, Tab 48, Schedule VECC-97 e), and Hydro One should be directed to do so.

Hydro One responded that it is unclear how the allocated costs for each class could be adjusted to take into account the load forecast by rate class as suggested by VECC. Hydro One noted that, with the exception of the Sentinel Light rate class, there is virtually no difference in the test year revenue calculated using Hydro One's approach and the approach recommended by VECC. Further, Hydro One argued that VECC's approach requires the use of proposed revenue-to-cost ratios for 2019/2020/2022 for each rate class, which are derived using the exact approach VECC is arguing against. As such, Hydro One submitted that it is unclear how to address VECC's concern in this area, if there remains a concern.²³⁵

Energy Probe argued for the elimination of cross subsidies between rate classes, suggesting that revenue-to-cost ratios should be kept as close as possible to 1.0, with some cross-subsidization possible only between similar classes of customers e.g. from one residential customer class to another.²³⁶ Energy Probe argued that customers of various rate classes should pay rates that fully reflect what it costs to serve them.

Energy Probe noted that over the five-year period, the revenue-to-cost ratios for the residential rate classes are actually moving away from 1.0, with revenue-to-cost ratios for UR and R1 increasing to 1.10 by the end of the test period.²³⁷

Energy Probe further noted Hydro One's statement that the cost allocation model is not a "perfect assessment of what it costs to serve each rate class".²³⁸ Energy Probe argued that the cost allocation model is the only model through which costs are attributed to rate classes, and if the model does not accurately determine the real cost of serving a particular rate class, this should be addressed in Hydro One's next

²³⁴ VECC Submission, page 58-59.

²³⁵ Hydro One Reply Argument, page 152.

²³⁶ Energy Probe Submission, para 99, 106.

²³⁷ Energy Probe Submission, para 102, 103.

²³⁸ Oral hearing Transcript Volume 10, page 148.

distribution rate application.²³⁹ Energy Probe submitted that Hydro One should be directed to have an outside consultant review the cost allocation model in order to determine whether it accurately reflects the true cost of servicing various rate classes.

Hydro One argued that Energy Probe mischaracterized its statement that having a range for revenue-to-cost ratios is appropriate because the cost allocation is not a perfect assessment of costs as suggesting that the cost allocation model is “broken”.

Hydro One also submitted that Energy Probe’s suggestion that Hydro One retain an outside consultant to review the cost allocation model is completely inappropriate. Hydro One stated that it had followed the principles underlying the OEB’s cost allocation model, but the results will never be an exact or perfect indication of the cost to serve any particular class. Hydro One argued that this is well understood by the OEB, and is precisely why the OEB has established a range of acceptable revenue-to-cost ratios.²⁴⁰

Findings

Hydro One has proposed revenue-to-cost ratios for each customer class that are within the ranges established by the OEB²⁴¹ for all but one customer class. For the Distributed Generation class, Hydro One has proposed a phase-in to the range between 2018 and 2020 to mitigate bill impacts. The OEB accepts Hydro One’s approach.

The OEB questions Hydro One’s approach to determining the base revenue requirement by class for 2019 and 2020. This approach involves adding miscellaneous revenue by class to calculate a total service revenue before applying a common adjustment factor, then subtracting an amount for miscellaneous revenue to determine the revenue by class for setting distribution rates. It would appear to be more straightforward to adopt the approach proposed by VECC in its interrogatories.²⁴² However, the OEB accepts Hydro One’s response to VECC’s interrogatory that shows the impact is not material.²⁴³

The OEB will not require Hydro One to make adjustments to bring the revenue-to-cost ratios closer to one. The OEB’s cost allocation policy adopted ranges for revenue-to-cost ratios for each customer class taking into consideration a number of influencing

²³⁹ Energy Probe Submission, para 107, 108.

²⁴⁰ Hydro One Reply Argument, page 151-152.

²⁴¹ Review of Electricity Distribution Cost Allocation Policy, Report of the Board, EB-2010-0219 – March 31, 2011, and OEB Letter – New Cost Allocation Policy for Street Lighting Rate Class, EB-2012-0383 – June 12, 2015.

²⁴² Exhibit I Tab 48 Schedule VECC-97 e).

²⁴³ Exhibit I Tab 48 Schedule VECC-97 f).

factors, and the OEB has narrowed these ranges since they were first introduced. Hydro One has proposed adjustments to ensure that each customer class is within the established range. While the OEB normally expects that revenue-to-cost ratios will not move further away from one, the OEB accepts Hydro One's submission that the movement is not material and a review is not warranted on that basis. The OEB will not require Hydro One to make further adjustments to the revenue-to-cost ratios at this time.

Hydro One shall ensure that in filing the draft rate order reflecting the OEB's findings, the revenue-to-cost ratios for all customer classes remain in the OEB-established ranges (with the phase-in to the range for the Distributed Generation class to keep bill impacts below 10%).

3.9.4 Fixed and Variable Charges (Issue 52)

Hydro One submitted that its proposed fixed and variable charges for all of its rate classes are appropriate. Its evidence noted that it is moving to fully fixed rates for all its residential rate classes in accordance with an OEB decision.²⁴⁴ In this prior decision, the OEB approved a mitigation plan for the transition to fixed rates for residential customers. Instead of the four-year transition per the OEB policy,²⁴⁵ the OEB approved a five-year transition for the UR residential class and an eight-year transition for the R1, R2 and seasonal residential classes. With this plan, the transition will be completed in 2020 for the UR residential class and 2023 for the other residential classes.

Rather than calculating the transition to fixed rates using the methodology in the OEB's revenue requirement workform (RRWF), Hydro One adopted an alternative approach. As described by OEB staff, the methodology in the RRWF first increases both the fixed and variable rates, then increases the fixed charge further and reduces the variable charge to transition to fully fixed rates based on how many years remain in the transition.²⁴⁶ Hydro One's method determines the fully fixed charge to recover the revenue requirement then moves a proportionate step between the current fixed charge and the fully fixed charge. In response to interrogatories, Hydro One reasoned that their

²⁴⁴ Exh. H1, Tab 1, Sch. 1, p. 16 Updated 2017-06-07 and EB-2013-0416/EB-2015-0079.

²⁴⁵ Board Policy: A New Distribution Rate Design for Residential Electricity Customers, EB-2012-0410.

²⁴⁶ OEB staff Submission, p. 152.

method “results in a smoother transition to all-fixed rates” and “helps mitigate the impact on low volume customers during rebasing”.²⁴⁷

OEB staff noted that with the methodology proposed by Hydro One, it is not possible to isolate the amount of increase proposed due to the residential rate design policy alone. OEB staff submitted that Hydro One’s approach to rate design may result in smaller fixed charge increases initially for the R1, R2 and seasonal rate classes but higher fixed charge increases in later years, in particular for 2023- the final year of the transition (which is outside of the five-year term of this Custom IR plan). Therefore, OEB staff submitted that Hydro One should adopt the method in the RRWF for implementing the transition to fixed residential rates in accordance with the residential rate design policy.

VECC submitted that the RRWF methodology provides for a smoother transition to a fully fixed residential rate than Hydro One’s proposed approach, and that Hydro One should be directed to adopt it. VECC supported the position outlined in the OEB staff submission. BOMA also supported the use of the RRWF methodology.²⁴⁸

Hydro One re-emphasized for the OEB that while the RRWF methodology results in a smoother transition in terms of absolute dollar amount, the bill impacts in percentage terms are smoother under Hydro One’s suggested approach. Hydro One argued that this is particularly important given the RRWF methodology will result in higher fixed charges for all residential rate classes in 2018. However, Hydro One stated that it will accept using the RRWF methodology, if this is deemed appropriate by the OEB.

Balsam Lake noted that on March 12, 2015, the OEB determined that the seasonal class should be eliminated, and ordered Hydro One to provide a plan for this. While a plan was filed August 4, 2015, the OEB determined that the initial step in the elimination of the Seasonal Class was the implementation of its policy with respect to fully fixed charges. Balsam Lake stated that since then, neither Hydro One nor the OEB had taken any further action with respect to eliminating the seasonal rate class.²⁴⁹ Balsam Lake then provided a detailed proposal as to how Hydro One and the OEB should deal with seasonal rates.

Hydro One responded by noting that the implementation of the elimination of the seasonal class is a complex issue, which is why the OEB directed it to file a detailed report on this issue and initiated a separate proceeding to examine the findings from

²⁴⁷ Exh. I-49-Staff-245 a).

²⁴⁸ BOMA Submission, page 45.

²⁴⁹ Balsam Lake Submission, page 3.

that report. Hydro One submitted that its understanding is that seasonal class matters are not an issue for this proceeding.

For customer classes other than residential, Hydro One proposes to maintain the approach to fixed and variable splits previously approved by the OEB. Hydro One stated that in the case of customers moving to the new Acquired Utility general service rate classes in 2021, it will either adopt the fixed-to-variable split previously approved by the OEB for the Acquired Utilities, or it will apply a blended value of the OEB-approved splits.²⁵⁰

The City of Hamilton (COH) stated that it is a customer of Hydro One for a portion of its street light services, and pays approximately \$342,000 in rates annually. Beginning in June 2017, COH began to convert its street light system to LED, and had estimated that this would reduce annual delivery rates by approximately \$142,000.

COH submitted that it is unable to determine from Hydro One's evidence whether and to what extent Hydro One accounted for CDM programs in establishing rates for its street light class, in particular COH's LED conversion program. COH further submitted that it does not get the full benefit of its LED conversion program, and therefore its rates are neither just nor reasonable. COH argued that there should be a mechanism whereby the rates for the street light class can be adjusted in each year to reflect the effect of CDM programs generally and COH's LED conversion program in particular.

Hydro One responded by noting that the impact of the LED conversion has been included in the streetlight kWh forecast, and as such, the proposed rates for the streetlight class do reflect the impact of the forecast LED conversion. Hydro One also noted that in order to receive the benefit of lower bills, COH must provide it with updated and accurate data.

Hydro One submitted that the only way to prevent cross-subsidization within the street light class would be to create a separate rate class. Hydro One argued that this is not appropriate because it would effectively require all LDCs to create separate rate classes to differentiate between customers who participate in CDM programs and those that do not, and this would not be practical.²⁵¹

ESC argued that a separate rate class for energy storage is required. It noted that such customers are treated as Distributed Generation customers, and are charged a demand charge when drawing electricity from the distribution system, but are not compensated

²⁵⁰ Argument-in-chief, pp. 148-149.

²⁵¹ Hydro One Reply Argument, page 156-157.

when they are discharging for the benefit of customers and the distribution system. Further, customers with behind the meter storage are similarly classified as load customers.²⁵²

ESC noted that sub-transmission (ST) customers with behind the meter load displacement generation or energy storage equipment greater than 1 MW installed after October 1998 are subject to “Gross Demand” billing, while ST customers with renewable generation less than 2MW are exempted from “gross demand” billing. ESC notes that this puts energy storage facilities at a disadvantage relative to renewable generation.²⁵³ ESC stated that Hydro One rates applicable to energy storage are not tailored to the unique characteristics of energy storage, nor do they account for the system benefits of energy storage.²⁵⁴

ESC submitted that Hydro One should be required to develop a new customer rate class specific to energy storage. Alternatively, the OEB should promptly undertake an initiative to consider and develop a separate distribution and transmission rate class for energy storage customers.²⁵⁵

Hydro One argued in response that the appropriate manner to address energy storage is via an industry-wide forum with guidance and direction from the OEB. Hydro One noted that creating an energy storage rate class would require defined rate design / cost allocation principles which do not exist currently (such as to address potential system benefits).²⁵⁶

Findings

Hydro One is expected to implement the transition to fixed rates for the residential customer classes using the methodology in the OEB’s revenue requirement workform. The OEB is concerned that Hydro One’s approach, while lowering the fixed charge for 2018, is only deferring a larger increase to the fixed charge after the end of the Custom IR term. OEB staff, VECC and BOMA all agreed that the OEB’s approach was preferred.

The OEB is satisfied that the City of Hamilton can gain the benefits of its conversion to LED streetlights through the billing determinants used to calculate its electricity bills. The City of Hamilton should ensure that Hydro One has the most up to date information

²⁵² ESC Submission, para 4, 5.

²⁵³ ESC Submission, para 6.

²⁵⁴ ESC Submission, para 7, 8.

²⁵⁵ ESC Submission, para 12.

²⁵⁶ Hydro One Reply Argument, page 158.

on the number and load of its streetlights on which Hydro One is expected to calculate these electricity bills. Streetlights are unmetered loads, so it is critical that Hydro One has accurate information. Hydro One's customer class for streetlighting includes the streetlights for numerous municipalities, just like all other customer classes include multiple different customers. The OEB will not require Hydro One to create a customer class specific to the City of Hamilton streetlights. There is no information on the record to demonstrate that the streetlight load for the City of Hamilton is materially different than other streetlight loads served by Hydro One. Hydro One has also stated that the impact of LED conversions has been included in its load forecasting for the streetlighting class.

On September 20, 2018, the OEB issued a letter related to a proceeding²⁵⁷ to implement the OEB's decision²⁵⁸ to eliminate the Hydro One seasonal rate class. This letter stated:

The purpose of this letter is to inform parties that the OEB intends to resume this proceeding at the conclusion of its current review of Hydro One's proposed 2018-2022 distribution rates. The OEB expects that Hydro One will update the December 1, 2016 report to reflect the new rates arising from this review and file this with the OEB no later than three weeks after the issuance of the final rate order for the distribution rates proceeding.

Given this separate proceeding, the OEB will not make any findings related to the elimination of the seasonal rate class at this time.

The OEB has determined that the appropriate manner to address energy storage matters is on a generic basis through an industry-wide forum. There is insufficient information on the record of this proceeding to consider creating a customer class specifically for energy storage customers. The OEB notes that it does have a policy review identified in its 2018 to 2021 business plan to identify and develop regulatory reform to facilitate investment in distributed energy resources (DERs) that can benefit customers. The OEB has also issued a report from the OEB's Advisory Committee on Innovation²⁵⁹ which includes specific recommendations related to DER. Further consultation will occur, as appropriate, as initiatives proceed.

²⁵⁷ EB-2016-0315.

²⁵⁸ EB-2013-0416 / EB-2014-0247.

²⁵⁹ <https://www.oeb.ca/about-us/who-we-are/stakeholder-and-consumer-groups/advisory-committee-innovation>, issued November 22, 2018.

3.9.5 Retail Transmission Service Rates (Issue 53)

Hydro One is billed by the IESO at each of its transmission delivery points for the transmission of power. The IESO charges the Uniform Transmission Rates (UTRs) approved by the OEB. Retail transmission service rates (RTSRs) are set to recover these transmission costs from customers. Variance accounts have been approved by the OEB to record the difference between the transmission costs charged by the IESO and the revenue from customers for the RTSRs, for future disposition.

Hydro One requested an update to its RTSRs for 2018 to reflect the latest approved UTRs, using the class share of transmission charges per the methodology approved by the OEB in Hydro One's prior application.²⁶⁰ The UTRs in place at the time of the application were effective January 1, 2016. Hydro One proposes to update its RTSRs each year of the Custom IR term to reflect new UTRs that are approved by the OEB.²⁶¹

OEB staff submitted that the Retail Transmission Service Rates are appropriate. No other party expressed any concerns in this area.

Findings

The OEB approves an adjustment to Hydro One's RTSRs. Hydro One is expected to update the calculation of the RTSRs based on the current approved UTRs,²⁶² and file the revised rates as part of the draft rate order.

3.9.6 Specific Service Charges (Issue 54)

Specific service charges are for certain extra miscellaneous services such as special meter reads, late payment interest, and reconnections. These charges are only applied if a customer uses a particular service that imposes a cost on a utility. The charges to recover the costs to provide these services are not part of distribution rates, but they still must be approved by the OEB.

Hydro One stated that a significant portion of its external revenue (discussed under Issue 45) is generated by charging specific service charges using OEB-approved fixed rates. Hydro One noted that its specific service charges have been held fixed for the past ten years, but that in response to OEB direction from the previous distribution rates

²⁶⁰ Argument-in-chief, p. 149.

²⁶¹ Exhibit H1-1-1, page 26 of 32.

²⁶² Decision and Order, EB-2018-0326, December 20, 2018.

proceeding, it had completed an extensive year-long time study of the work and costs to provide miscellaneous services (Specific Services Charge Study). Hydro One submitted that the updated specific service charges were, with some exceptions, based on this Specific Services Charge Study.

Hydro One initially proposed some new specific service charges in its application, and an update to other charges based on the Specific Service Charge Study,²⁶³ but at the oral hearing amended this request.²⁶⁴ The specific service charges that Hydro One no longer proposes to apply include: Arrears Certificate; Statement of Account; Pulling post-dated cheques; Duplicate Invoices for Previous Billing; Request for Other Billing Information; Income Tax letter; Notification Charge; Account History; Credits Reference/Credit Check; Charge to Certify Cheque; Legal Letter Charge; Vacant Premise – Move in with Reconnect of Electrical Service at Meter; and Vacant Premise – Move in with Reconnect of Electrical Service at Pole. Hydro One stated as follows:

Hydro One sees no reason why these activities should cease to be part of the standard level of service and proposes to continue to include the costs for these activities in its distribution rates consistent with its past service. This change will result in a shift of about \$341,000 from 2018 external revenues to Hydro One's rates' revenue requirement, which will not materially impact Hydro One's customers.²⁶⁵

Hydro One also amended its request to increase specific service charges for: Disconnect/Reconnect at Meter – During Regular Hours and Disconnect/Reconnect at Meter – After Regular Hours. Hydro One stated that with an increase in the number of remote disconnects since the time of the Specific Service Charge Study, the overall costs associated with disconnects will decline. Hydro One is therefore proposing to maintain these charges at the current approved level. This change shifts \$1.3 million from “external revenue” to distribution service revenue. Hydro One also confirmed that it charges “when you disconnect the service and then after payment is made, it’s charged again to reconnect the service. So it’s charged twice.”²⁶⁶

OEB staff submitted that the methodology used by Hydro One to calculate its specific service charges is appropriate, and the observed time estimates are consistent with what OEB staff believes to be appropriate. Therefore, OEB staff believes that the level

²⁶³ Exhibit H1-2-3 pages 4, 6.

²⁶⁴ Argument-in-chief, p. 143.

²⁶⁵ Oral Hearing Transcript Volume 11, pp. 6-7.

²⁶⁶ Oral Hearing Transcript Volume 11, p. 9.

of the charges proposed by Hydro One appropriately reflects its costs to provide services.

OEB staff however noted that the proposed increases in some of these charges are significant and that Hydro One had acknowledged not undertaking any engagement with customers affected by these increases. OEB staff submitted that Hydro One should engage affected customers in some fashion when they may be facing a large increase in charges. OEB staff argued that to avoid cross subsidization with the general customer base, Hydro One should explore, with affected customers, ways to phase in new or increased charges, rather than not implement them at all. OEB staff submitted that Hydro One should not be permitted to recover additional amounts from the general customer base.

QMA stated that it had reviewed Hydro One's proposed service charges and the related time study and that there should be no cross-subsidization between rate classes for these services and the focus should be on a user-pay basis. Further, QMA expressed its agreement with OEB staff that improved customer engagement by Hydro One in advance of developing new or increased charges would reflect good business practice.

VECC stated that Hydro One's proposal to discontinue a number of miscellaneous charges and maintain its disconnection/reconnection charges at current levels is appropriate, but Hydro One should also be directed to withdraw its proposed charges for Special Meter Reads – Retailer Requested (Rate Code 15).

VECC argued that fees affecting reconnections and vulnerable consumers should not be based on costs alone. VECC submitted that such fees should also be based on a consideration of whether the fees are affordable and the consequences if consumers cannot afford to pay the fees. VECC submitted that these considerations are linked with the OEB's statutory objectives for electricity regulation, including protecting the interests of consumers with respect to prices and promoting economic efficiency in distribution and sale of electricity.

Hydro One noted VECC's submission that it should withdraw its proposed special meter reads charges and observed that this charge is driven by a retailer-related request to expedite a meter reading off-cycle and this charge is based on principles of cost causality.

BOMA submitted that the service charges for which Hydro One is requesting substantial increases should not be approved at this time and that Hydro One should be directed to consult with customers on the proposed substantial increases.

CCC noted that at the oral hearing, Hydro One had indicated that many of the proposed charges would be either eliminated or maintained at the current levels. CCC expressed its support for Hydro One's proposals to change or eliminate these fees as described during the oral hearing process. CCC submitted that Hydro One should only be permitted to phase in those charges that are increasing significantly and be required to undertake customer engagement regarding such changes before they are approved. As such, CCC concluded that it is premature at this time for the OEB to approve them.

Hydro One rejected the positions of OEB staff, BOMA and CCC that it should be directed to consult with customers on the proposed increases before these changes are approved by the OEB. Hydro One noted in support of its position that OEB staff had concluded the level of charges proposed by Hydro One appropriately reflects its costs to provide services and that no party had seriously questioned the methodology by which the quantum of service charges was calculated, or the fact that service charges should reflect costs.

Hydro One noted that OEB staff had also argued that pending this consultation, the incremental cost to customers receiving these services should be borne by the shareholder. Hydro One rejected this position because the costs for the services had been substantiated, and therefore they should be borne by the customers causing them.

Hydro One submitted that it was not clear what further value consultation with customers would have – apart from communicating these increases to them – which had been done through this proceeding. Hydro One stated that many of the charges in question are “one-off” in nature and it is not possible in advance to identify which customers may be affected by them. Hydro One concluded that the OEB's policies, like good ratemaking policies in general, are for these services to cover their costs.

Energy Probe noted that Hydro One is seeking the OEB's approval for large increases in many of its service charges and stated that while it had a general concern about the size of many of the increases, the proposed increase to the Meter Dispute Charge from \$30 to \$290 plus a Measurement Canada Charge is a particular concern.

Energy Probe observed that according to Hydro One's evidence, interval meters will be reaching the end of their useful life over the next five years. Energy Probe suggested it is likely that some meters will experience technical problems resulting in faulty readings. Energy Probe submitted that if the proposed \$290 plus Measurement Canada charge is approved, customers will be discouraged from contacting Hydro One to seek resolution of meter reading problems. This would also lead to an unintended negative consequence on Hydro One as it will not be obtaining information about faulty meters

from its customers. Energy Probe argued that, as such, the proposed increase in the Meter Dispute Charge is a lose-lose proposition and should be rejected by the OEB.

Hydro One submitted that this charge is based on principles of cost causality and stated that it makes efforts to work with a customer prior to dispatching a truck, and it is only if a meter is actually not faulty that a customer would incur this charge.

ESC submitted that the OEB should require Hydro One to account for the system benefits of energy storage in calculating Connection Impact Assessment (CIA) rates and other specific service charges specific to energy storage as a condition of the OEB's approval of the application. ESC further submitted that the OEB may wish to consider whether revisions to the *Distribution System Code* are specifically required to properly address and accommodate the growing amount of energy storage.

Hydro One responded that the cost for the CIA is appropriately based on the costs Hydro One incurs to perform the work required in conducting a CIA and that the system benefits noted by ESC do not alter the cost associated with Hydro One undertaking this work.

Hydro One initially proposed a utility-specific pole attachment charge. It updated this evidence in response to a report issued by the OEB on pole attachments (Pole Attachment Report).²⁶⁷ Following the hearing of a motion by Rogers and the OEB's issuance of its Decision and Procedural Order No. 11, Hydro One elected to adopt the OEB's province-wide pole attachment charge of \$43.63.

Findings

Subsequent to Hydro One's reply submission, the OEB issued a report on energy retailer services charges (RSC Report).²⁶⁸ This report amended the RSCs effective May 1, 2019. RSCs will also be increased by the rate of inflation on January 1 of each year starting on January 1, 2020. In the draft rate order, Hydro One is expected to update its RSCs to reflect those in the RSC Report,²⁶⁹ and to increase the forecast for external revenues accordingly.

The OEB also issued, on December 18, 2018, a Notice of Hearing related to service charges for the non-payment of accounts. This Notice of Hearing was issued in

²⁶⁷ Report of the Ontario Energy Board Wireline Pole Attachment Charges, March 22, 2018, EB-2015-0304.

²⁶⁸ Report of the Ontario Energy Board Energy Retailer Services Charges, November 29, 2018, EB-2015-0304.

²⁶⁹ RSC Report, page 4.

conjunction with a Notice of Proposal to amend several electricity codes and the rules for natural gas.²⁷⁰ The Notice of Hearing may not be concluded before this Decision and Order is issued. Nevertheless, the OEB will adopt the proposals for service charges set out in the Draft Order at Appendix F of the Notice of Hearing. The OEB does not typically adopt matters in the adjudication of applications that are subject to a draft policy. However, in this instance there has been previous consultation on the issues and the timing of the conclusion of the Notice of Hearing is likely to be coincident with the draft rate order process for this Hydro One proceeding. Specifically, in this proceeding the OEB is approving effective July 1, 2019:

1. Elimination of the Collection of Account charge
2. Elimination of any charge for installing or removing a load control device
3. Elimination of all current Hydro One charges for Disconnect/Reconnect for non-payment to be replaced by charges for non-payment of:
 - a. Reconnection at Meter – During Regular Hours \$65
 - b. Reconnection at Meter – After Regular Hours \$185
 - c. Reconnection at Pole – During Regular Hours \$185
 - d. Reconnection at Pole – After Regular Hours \$415
4. Elimination of the current Late Payment charges to be replaced by one Late Payment charge as follows:

Late Payment – per month	1.5%
(effective annual rate 19.56%	
per annum or 0.04896%	
compounded daily rate)	

The July 1, 2019 effective date is to provide additional time for Hydro One to implement these changes. Hydro One shall adjust the external revenue forecast to reflect these findings to file as part of the draft rate order.

²⁷⁰ *Notice of Proposal to Amend Codes and a Rule – Proposed Amendments to the Distribution System Code, Standard Supply Code, Unit Sub-Metering Code and Gas Distribution Access Rule and Notice of Hearing Review of Non-Payment of Account Service Charges for Electricity and Natural Gas Distributors, EB-2017-0183.*

The OEB accepts Hydro One's proposal brought forward at the oral hearing to maintain the charges for reconnections due to non-payment at the current level. Typically charges for miscellaneous services should be set at the cost of providing that service, so there is no cross-subsidization between customers for whom costs are incurred and the general customer base. However, in this case, the OEB recognizes the importance of protecting vulnerable consumers. The OEB observes that this would not be the only circumstance in which the OEB will permit some element of cross-subsidization. For example, the OEB's *Distribution System Code* requires an electricity distributor to provide a basic connection to its system at no charge, with the cost to be recovered through the distributor's revenue requirement.

It is important to know the cost of providing services so that an informed decision can be made on whether the cost of a service should be recovered as part of core distribution services or based on full or partial cost recovery from the customer using the service. The Specific Service Charge Study was helpful in this regard.

The OEB agrees with VECC's argument that charges for reconnections can take into consideration factors other than cost recovery alone given that customers subject to a reconnection charge are more likely to be vulnerable consumers. The OEB is therefore approving Hydro One's proposal to maintain reconnection charges at the current level.

Charges for reconnection at a customer's request for reasons other than non-payment (rate codes 32, 33) shall cover the cost of providing these services, as reflected in Hydro One's evidence.²⁷¹

The OEB approves Hydro One's proposal brought forth at the oral hearing not to create a number of new charges. The revenue forecast from these charges is not material.

While Hydro One has a current approved charge on its tariff for Arrears Certificate, the OEB accepts the explanation in Hydro One's evidence that this charge is no longer required because electricity bill arrears can no longer be recovered through the municipal property tax roll.

The OEB does not approve the increase to the Meter Dispute Charge. A charge of \$290 makes it prohibitive for a customer to question a meter reading. The charge will remain at \$30. The OEB does approve the charge of \$90 for a Special Meter Read. This is only applied when a retailer requests an enrollment "off-cycle". An option still exists for a switch to occur with the billing cycle to avoid the charge.

²⁷¹ Exhibit H1-2-3, page 6.

For all other specific service charges, the OEB approves the charges proposed by Hydro One that were informed by the Specific Service Charge Study. No party argued that Hydro One's methodology was inappropriate. OEB staff and many intervenors argued that Hydro One should have consulted with customers on any charges increasing materially. The OEB agrees. The OEB directs Hydro One to consult with its customers on specific service charges and to report back to the OEB at the time of its next rebasing application. Hydro One can determine the method of this consultation, such as surveys or focus groups, but an element of this should include feedback on what types of services should have cost recovery through distribution rates versus specific service charges. During this Custom IR term, the OEB approves these charges based on full cost recovery, as proposed by Hydro One.

It is out of scope of this proceeding for the OEB to consider revisions to the *Distribution System Code* related to energy storage, as requested by ESC.

The OEB accepts Hydro One's adoption of the province-wide pole attachment charge effective January 1, 2019, This should be reflected in the tariff filed with the draft rate order.

Hydro One shall update its external revenue forecast to reflect this Decision and Order to be filed in detail with the draft rate order.

3.9.7 Line Losses (Issue 55)

Hydro One stated that it proposes to continue to use the total loss factors approved by the OEB in the previous distribution rates proceeding that were determined based on the results of a line loss study.²⁷² These loss factors would apply for all existing Hydro One rate classes for the 2018 to 2022 Custom IR term. Hydro One's evidence calculates the five-year average historical loss factor as 8.3%. Hydro One submitted that its proposed loss factors across all rate classes remain consistent with this five-year average.

For the proposed new rate classes for the Acquired Utilities, Hydro One proposed to use the Acquired Utilities' currently approved loss factors as a starting point, while taking into account that customers of the Acquired Utilities now share in the use of Hydro One's bulk (sub-transmission) assets.²⁷³

²⁷² EB-2013-0416.

²⁷³ Argument-in-chief, pp. 149-150.

OEB staff submitted that the proposed line losses are appropriate. VECC stated that it had no issues with Hydro One's proposed loss factors. No other parties expressed any concerns in this area, except as they related to the Acquired Utilities.

Findings

The OEB approves the loss factors proposed by Hydro One for the existing rate classes. These loss factors were previously approved by the OEB, and no party objected to their continued approval. The OEB is concerned about the variation in distribution losses from year to year; from a low of 5.3% in 2012 to a high of 10.4% in 2013 (averaging 8.3%). Hydro One is expected to update its line loss study for consideration in its next rebasing rate application, which should include an assessment of the actual line losses for a five year period.

The loss factors for the Acquired Utilities will remain at the current level during the Custom IR term.

3.9.8 Cost Allocation to Acquired Utilities (Issue 56)

Issue 56. Do the costs allocated to acquired utilities appropriately reflect the OEB's decisions in related Hydro One acquisition proceedings?

Hydro One acknowledged that the OEB's direction, in its decisions on Hydro One's applications to acquire Norfolk Hydro, Haldimand Hydro and Woodstock Hydro, was that the customers of these utilities be charged rates that reflect the cost to serve them. Hydro One further noted that its total revenue requirement in 2021 includes \$25.6 million in incremental revenue requirement associated with serving the Acquired Utilities' customers, which was less than the expected \$39.9 million in revenue that would need to have been collected from Acquired Utilities' customers had they not been acquired by Hydro One.²⁷⁴

Hydro One is proposing to use the cost allocation model to allocate costs across all rate classes, including the Acquired Utilities' rate classes in 2021. In order to do this, it has proposed allocating the forecasted 2021 capital assets related to the Acquired Utilities using adjustment factors. Hydro One stated in its application that two adjustment factors were developed and included in the 2021 cost allocation model to ensure that the capital costs allocated to the six new acquired rate classes appropriately reflect the cost

²⁷⁴ Argument-in-chief, p. 150.

of serving the customers in these rate classes.²⁷⁵ The new adjustment factors were created for gross fixed assets and net fixed assets. In both cases, the adjustment factors were created to align the costs allocated by the cost allocation model with the costs required to serve the acquired rate classes. In addition, depreciation was adjusted by the gross fixed asset adjustment factor, reflecting the reduction in gross fixed assets used to serve the acquired rate classes.²⁷⁶

OEB staff submitted that the adjustment factors are, in effect, performing a direct allocation of assets and depreciation to the Acquired Utilities. OEB staff accepted that where costs associated with specific rate classes are known, direct allocation is appropriate. OEB staff submitted that Hydro One's proposal to use the adjustment factors for capital and the allocation of OM&A costs based on the cost allocation model is a reasonable proxy for reflecting the cost to serve.

OEB staff also submitted that based on Hydro One's calculation of the expected revenue of \$39.9 million that would have been collected from the Acquired Utilities if they had not been acquired by Hydro One and the total proposed revenue to be collected from the Acquired Utilities' six rate classes of \$34.9 million,²⁷⁷ customers of the Acquired Utilities are paying marginally less than they would have otherwise.

VECC took the position that there were two aspects to the OEB's past decisions that needed to be assessed. The first is whether the proposed changes result in an allocation of costs to the Acquired Utilities' customers that reflects the cost to serve them. The second is whether or not the overall costs allocated to the Acquired Utilities' customers are less than what the customers would have paid if there had been no acquisitions.

VECC submitted that combining the acquired customers from Norfolk and Haldimand will confound the objective of setting rates for the Acquired Utilities that reflect the cost to serve them.

VECC's major concern is with Hydro One's proposed adjustment factors approach, specifically that they are at the level of Gross Fixed Assets, Net Fixed Assets (NFA), and Depreciation, rather than more granular at the level of the accounts in the Uniform System of Accounts (USoA). VECC argued that this approach will also impact OM&A allocation given that OM&A is allocated based on asset value. VECC noted that, during the technical conference, Hydro One had acknowledged this shortcoming and indicated

²⁷⁵ Exh G1, Tab 3, Sch. 1, p. 5 Updated: 2017-06-07.

²⁷⁶ Exh G1, Tab 3, Sch. 1, p. 5 Updated: 2017-06-07.

²⁷⁷ Transcript Vol. 10, p.168.

a willingness to adopt “account-specific” adjustment factors if the OEB determined them to be appropriate.

VECC’s other major concern is Hydro One’s proposed approach to updating the adjustment factors in future applications. Hydro One indicated that it did not intend to update the adjustment factors unless another acquired utility was harmonized into the acquired customer classes,²⁷⁸ and did not intend to track the costs. VECC argued that by not tracking future capital spending and in-service additions related to the Acquired Utilities’ customers, the cost allocated in future cost allocations would not truly reflect the “cost to serve” these customers. VECC submitted that Hydro One should be required to update the adjustment factors for each future cost allocation and suggested that if Hydro One is unable or unwilling to meet these requirements, the OEB should take this into account when considering future acquisitions of distribution utilities.²⁷⁹

VECC also expressed concerns with Hydro One’s analysis related to the no harm test.²⁸⁰ Hydro One had assumed that distribution rates in the absence of acquisitions would increase by 6.3% in rebasing applications for the Acquired Utilities. VECC observed that utility rate increases varied widely from 0.9% to 14.84% in 2015, from -3% to 25% in 2016, and from -2.32% to 18.78% in 2017. Given the ranges, VECC argued that it is fair to say the rebasing rate increase for any utility can vary widely from the 6.3% average.

VECC did not contest the concluded acquisitions in its submission, and acknowledged that total costs overall are lower as a result of the acquisitions. VECC, however, submitted that the costs allocated exceed the costs the customers would have borne had the acquisitions not taken place. VECC submitted that the OEB should take note of these results in setting revenue to cost ratios for the acquired customer classes in this application and in future applications, as well as in its consideration of future applications by Hydro One to acquire other electricity distribution utilities.

In response to VECC’s statement that Norfolk and Haldimand’s costs are not similar, Hydro One submitted that it is not necessary for costs to be perfectly aligned between customers to put them into the same rate class, and that the difference of 5% OM&A,

²⁷⁸ Exh I, 49-Staff-242 d).

²⁷⁹ VECC Submission, page 74.

²⁸⁰ The no harm test assesses whether the proposed transaction will have an adverse effect on the attainment of the OEB’s statutory objectives. While the OEB has broad statutory objectives, in applying the no harm test, the OEB has primarily focused its review on impacts of the proposed transaction on price and quality of service to customers, and the cost effectiveness, economic efficiency and financial viability of the electricity distribution sector.

and 25% fixed assets are not sufficiently material to warrant separate rate classes. Hydro One submitted that some level of cross-subsidization within a rate class is a natural outcome of the process of establishing a limited number of rate classes. Hydro One noted that the bill impacts for both groups of customers are well within 10%.²⁸¹

In response to VECC's suggestion that adjustment factors be determined for each USofA account, from Accounts 1815 to 1860, rather than a single adjustment factor, Hydro One submitted that it is not possible under its current approach to directly establish Depreciation and NFA adjustment factors within the cost allocation model on a USofA-specific basis. Hydro One stated that its approach was intended to accurately reflect costs in a manner that was relatively simple to implement and understand. Hydro One noted that its approach also avoids the potential for errors that could be introduced by differences in how individual utilities report the amounts by specific USofA accounts.²⁸²

With respect to VECC's suggestion that Hydro One update the adjustment factors for each future cost allocation, Hydro One submitted that given the long depreciation life of the distribution fixed assets, it will take some time before a material amount of existing assets are replaced such that there would be a significant impact on the calculated adjustment factors. Hydro One anticipates these adjustment factors to be sufficient for the next rate application term (2023-2027), and that by 2028-2032, there will be a number of new factors to consider, and Hydro One will assess what changes are required to the cost allocation model, including adjustment factors at that time.²⁸³

In response to VECC's concern regarding the estimation of the average escalation factor for cost of service years, Hydro One acknowledged that its approach provided an estimate of what the potential change in rates would have been, and stated that VECC did not propose a better approach. Hydro One submitted that its approach was reasonable, and leverages best available information.²⁸⁴

CCC noted that the total costs allocated to the Acquired Utilities is \$42.7 million, and that Hydro One is charging those customers \$34.9 million because the revenue-to-cost ratios are below 1.0.²⁸⁵ CCC submitted that given the evidence in this case, it is not

²⁸¹ Hydro One Reply Argument, page 159-160.

²⁸² Hydro One Reply Argument, page 160.

²⁸³ Hydro One Reply Argument, page 160-161.

²⁸⁴ Hydro One Reply Argument, page 161.

²⁸⁵ Oral Hearing Transcript Volume 10, page 122.

clear that these transactions would have passed the no harm test. The stand-alone costs are less than the allocated costs.²⁸⁶ VECC made a similar argument.

CCC argued that the proposal in this application is inconsistent with past acquisitions where customers of acquired utilities had been placed into existing Hydro One rate classes. CCC expressed the concern that the treatment of the acquired customers may be inappropriate and unfair to Hydro One's other customers and may set a precedent for all other future acquisitions.

CCC noted that Hydro One had told the OEB when it bought the Acquired Utilities that the costs to serve them would be less than if they remained stand-alone utilities, but the evidence is to the contrary in this case. CCC submitted that given the fact that allocated costs to the Acquired Utilities are higher than previously estimated, Hydro One should not be permitted to acquire any utilities in the future unless they provide strong evidence demonstrating that costs to serve new customers will go down.

CCC did not support Hydro One's proposal to establish new rate classes. It submitted that a practical approach would be to direct Hydro One to retain an independent consultant to study options for setting rates for the customers of any newly acquired utilities.²⁸⁷

With respect to BOMA, CCC and SEC's submissions that disagreed with the creation of six new rate classes, Hydro One stated that the OEB's specific direction was that customers of the Acquired Utilities be charged the costs incurred by Hydro One to serve them, and that it was not possible to simply merge the Acquired Utilities' customers into Hydro One's existing rate classes. Hydro One noted that it had limited the number of new rate classes by merging the Norfolk and Haldimand customers.²⁸⁸

SEC noted that in December 2017, Hydro One had filed updated evidence that made fundamental changes to the cost allocation for the Acquired Utilities and therefore to the proposed rates. SEC suggested that this change was apparently a tactical change designed to strengthen its case for the Orillia acquisition.²⁸⁹

SEC submitted that Hydro One has jettisoned cost allocation and rate design principles in pursuit of a goal that is likely not achievable: serving these acquired customers at a cost that is less than the cost incurred had they not been acquired. SEC argued that

²⁸⁶ CCC Submission, page 20.

²⁸⁷ CCC Submission, page 22.

²⁸⁸ Hydro One Reply Argument, page 162.

²⁸⁹ SEC Submission, page 93.

Hydro One, as a fundamentally high cost utility, is not in a position to be a lower cost utility to these customers given its current cost structure.

SEC stated that the lower allocation of costs stemmed from the fact that adjustment factors had been used, and that the reason for using adjustment factors was to achieve a cost allocation result that indicated costs were no more than the \$36.9 million that Hydro One had calculated the customers would have paid had the Acquired Utilities not been acquired. SEC suggested that after the revenue to cost ratios worked out to less than 100%, it ensured that the customers of the Acquired Utilities would arguably pay less than if they had not been acquired.²⁹⁰

SEC noted that since Hydro One is not going to be in a position to identify which assets are actually serving these customers, Hydro One has estimated the differences in costs based on a snapshot in time.

SEC noted that on the topic of equity and fairness between classes, cost allocation is a zero-sum game – any cost not allocated to the Acquired Utilities is recovered from other customers. SEC argued that Hydro One is deliberately rejecting the principal that like customers be treated the same.

SEC submitted that the OEB did not direct Hydro One to reject principles of customer classification and cost allocation and suggested an approach similar to Union Gas. Union Gas has separate rates for different rate zones because it has different costs to serve those rate zones, and it tracks the separate costs and charges to serve the customers in each rate zone.

SEC submitted that the proposed new rate classes for the Acquired Utilities be rejected, and argued that Hydro One is using a low revenue-to-cost ratio to deliberately reduce the rates that the customers of the Acquired Utilities are required to pay at the expense of other customers.²⁹¹

SEC identified the following options for the OEB to deal with the Acquired Utilities:

- Approve the Hydro One Proposal – SEC believes this option is not reasonable
- Deny Approval – rates would remain frozen and Hydro One would have to make another proposal. SEC believes this is not an unreasonable approach, but is concerned with Hydro One's track record on harmonizations

²⁹⁰ SEC Submission, page 100.

²⁹¹ SEC Submission, page 107.

- “Ring Fence” the Acquired Utilities – SEC believes this is not a legitimate option as Hydro One has stopped keeping cost records related to the Acquired Utilities, and this option has many of the same problems as the Hydro One proposal
- Take Charge
 - Deny approval of the six new rate classes
 - Direct Hydro One to commission an external analysis of their acquisition and harmonization strategies, with a view to identifying solutions that are conceptually sound, fair to all customers, both existing and new, and reasonably likely to be applicable to future acquired customers.
 - Until Hydro One has presented that study to the OEB, and a new, reasonable harmonization approach has been approved, continue the current decoupling of the rates of the Acquired Utilities from costs. Starting in 2021, escalate their rates annually by the weighted average rate increase applicable to all other Hydro One customers as approved by the OEB.²⁹²

SEC also stated that Hydro One should not be allowed to acquire other distributors until such time as it has a principled, and OEB-approved harmonization methodology in place that is consistent with the no harm test.²⁹³

SEC concluded that the Hydro One proposal should be denied, but the OEB should take a more active role in ensuring that Hydro One can come up with a better plan.

BOMA largely supported the submissions of SEC.

Hydro One objected to SEC’s allegation that it had “jury rigged” the cost allocation model, CCC’s suggestion that Hydro One’s cost allocation differs from the way rates are established for all other Hydro One customers, and BOMA’s statement that Hydro One did not allocate costs to the acquired customers on the basis of Hydro One’s existing cost allocation model.

Hydro One noted that the key driver of cost allocation is the amount of fixed assets required to serve a particular rate class. While typically a utility’s assets serve all of its customers, and therefore are allocated accordingly, in the case of the Acquired Utilities, Hydro One does know the specific local assets that are being used. Hydro One is

²⁹² SEC Submission, page 111.

²⁹³ SEC Submission, page 113.

proposing to use a direct allocation through the adjustment factors for a majority of asset related costs and OM&A associated with servicing those assets, however, common assets and OM&A are still to be allocated within the cost allocation model.²⁹⁴

Hydro One noted that the revenue-to-cost ratios for the acquired classes are an outcome of the cost allocation model and rate design process. Hydro One stated that it has not at any point intentionally reduced the revenue to cost ratios for the acquired classes.²⁹⁵

With respect to the December 2017 cost allocation update, Hydro One stated that it has clearly refuted the allegation that the update was due to the Orillia proceeding.²⁹⁶

On the topic of costs related to the Acquired Utilities, Hydro One noted that the OEB reviewed and approved the acquisitions of the Acquired Utilities, and that the purpose of the current proceeding is not to re-open those OEB approvals.

Hydro One responded to the suggestion that integrating the Acquired Utilities in 2021 results in a bad outcome for both its legacy customers and the customers of the Acquired Utilities by stating that:

1. The incremental revenue requirement to serve the Acquired Utilities' customers is \$25.6 million compared to the status quo revenue requirement of \$39.9 million – a combined benefit of \$14.3 million.
2. The revenue requirement to be collected from the acquired customers is \$34.9 million, resulting in \$9.3 million of benefits flowing to legacy customers, resulting in a 0.6% reduction in their rates.
3. Based on above, a \$5 million benefit flows to the customers of the Acquired Utilities – a 13% reduction in their rates.²⁹⁷

Hydro One disagreed with SEC's and CCC's suggestion that an external consultant review its cost allocation, stating that it had used the OEB's cost allocation model, and saw no reason for someone other than the OEB to review the model.²⁹⁸

Hydro One submitted in response to SEC's argument of "ring fencing" the Acquired Utilities, that this would be a departure from the OEB's directions in acquisition decisions and policies, which are intended to integrate acquired utilities with acquiring

²⁹⁴ Hydro One Reply Argument, page 163.

²⁹⁵ Hydro One Reply Argument, page 164-165.

²⁹⁶ Technical Conference Transcript Day 3, page 181-182.

²⁹⁷ Hydro One Reply Argument, page 166.

²⁹⁸ Hydro One Reply Argument, page 167.

utilities.²⁹⁹ Further, “ring fencing” does not avoid the issues of allocating common costs, or the fact that Hydro One no longer charges upstream distribution rates.³⁰⁰

Hydro One argued with respect to the use of external studies of its acquisition policies that the OEB does not regulate Hydro One’s management of its business strategies. As a result, it would not be appropriate for the OEB to order a third-party review of its acquisition policies.³⁰¹

Findings

The OEB finds that Hydro One’s proposed cost allocation to the Acquired Utilities does not reflect the OEB’s decisions in the related Hydro One acquisition proceedings.

In approving the acquisition of Norfolk, Haldimand and Woodstock,³⁰² the OEB directed Hydro One to maintain records of the cost to serve these utilities in order to inform the rate-setting process at the completion of the respective deferral periods. Hydro One has not maintained these records. Hydro One accepted the approvals but did not adhere to these conditions of approval. It is not acceptable to accept approval of a proposal without adhering to the direction that accompanied the approval. Hydro One did not seek to have the OEB vary its decisions to accommodate the departure from the OEB’s directions that is illustrated in Hydro One’s evidence in this rate-setting application

This rate-setting application now before the OEB was specifically identified in the acquisition proceeding decisions as Hydro One’s opportunity to demonstrate that the cost structures it presented in making its case that the no harm test had been met had led to the anticipated rates for customers being lower than they otherwise would have been.

In the Norfolk acquisition decision,³⁰³ the OEB provided its expectation that a downward impact on cost structures would tend to decrease rates, whereas an upward impact on cost structures would tend to increase rates.

²⁹⁹ The OEB’s legislative authority arises from Section 86 of the *Ontario Energy Board Act, 1998*.

³⁰⁰ Hydro One Reply Argument, page 167.

³⁰¹ Hydro One Reply Argument, page 167-168.

³⁰² EB-2013-0196/EB-2013-0187/EB-2013-0198 (Norfolk), EB-2014-0244 (Haldimand) and EB-2014-0213 (Woodstock).

³⁰³ EB-2013-0196/EB-2013-0187/EB-2013-0198 *Decision and Order*, July 3, 2014, p. 16.

In the Norfolk decision, the OEB found that:

Based on Hydro One's evidence and submissions, the Board considers it probable that there will be significant downward pressure on NPDI's OM&A and capital costs because of efficiencies due to geographic integration, economies of scale, integration of common administrative and management functions and asset management, lower financing costs and integrated planning of the distribution system.³⁰⁴

The OEB concluded in the Norfolk application that the Applicant had satisfied the no harm test and provided conditions. One of the conditions was as follows:

That with its first rates application that includes costs associated with NPDI's service area, HONI file a report with the Board delineating:

- a. The costs for NPDI's service area tracked separately;
- b. The savings achieved as a result of the acquisition; and
- c. The portion of NPDI's and HONI's costs that are incremental costs incurred in connection with the acquisition.³⁰⁵

The Haldimand and Woodstock approvals contained similar determinations and conditions.³⁰⁶

Hydro One has not demonstrated that the evidence it relied on to gain approval of the acquisitions has led to no harm to the customers of the Acquired Utilities with respect to rates. Hydro One not only had the opportunity to do so, it was the OEB's expectation that it do so.

Hydro One has stated that the OEB reviewed and approved the acquisitions of the Acquired Utilities, and that the purpose of the current proceeding is not to re-open those OEB approvals. While a reversal of the approvals granted is not a consideration in this case, the basis of the OEB's approval of the acquisitions is now being tested in a tangible and impactful proposal for rates to be charged to all of Hydro One's customers. Hydro One's evidence related to its anticipated future costs to serve the Acquired

³⁰⁴ *Ibid*, p. 21.

³⁰⁵ *Ibid*, p. 25.

³⁰⁶ EB-2014-0244 (Haldimand County Hydro Inc. Acquisition) *Decision and Order*, March 12, 2015, Section 3.1.1, p. 1 and Section 5, p. 3 and EB-2014-0213 (Woodstock Hydro Services Inc. Acquisition) *Decision and Order*, September 11, 2015, pp. 7-8 and p. 21.

Utilities that it provided in the acquisition proceedings has a direct bearing on the OEB's consideration of the appropriateness of Hydro One's rates proposed in this proceeding.

The OEB denies Hydro One's rates proposals with respect to the Acquired Utilities for the following reasons.

- 1) Hydro One's proposal contains simplistically derived and questionable estimates of revenue requirement comparisons to demonstrate adherence to the no harm requirement. The OEB accepts VECC's submission that given the wide range of past rate adjustments, the rebasing rate increase for any utility can vary widely from the 6.3% average.³⁰⁷
- 2) Hydro One's proposal is based on a cost allocation approach that recognizes the existing assets of the Acquired Utilities as being distinguishable and at a lower cost than its legacy assets by using adjustment factors. It intends to revisit this approach and proposes to recalibrate the adjustment factors over time as assets are renewed in the acquired service areas. The new assets will be included in Hydro One's existing asset pool at a higher cost and result in a lowering of the adjustment factors over time.

OEB staff submitted that Hydro One's proposal is reasonable because the adjustment factors are, in effect, performing a direct allocation of assets and depreciation to the Acquired Utilities. OEB staff accepted that where costs associated with specific rate classes are known, direct allocation is appropriate. OEB staff submitted that Hydro One's proposal to use the adjustment factors for capital and the allocation of OM&A costs based on the cost allocation model is a reasonable proxy for reflecting the cost to serve.

The OEB accepts that Hydro One's proposal adheres to some basic cost allocation principles that may be acceptable in a general sense. However, it is not acceptable to ignore the basis on which the approvals for acquiring the utilities were granted.

As SEC argued, Hydro One's rate proposal is based on a snapshot of the existing asset base in the acquired service area. The OEB agrees and based on Hydro One's failure to demonstrate that its costs are the same or lower in its evidence,³⁰⁸ finds that the proposal will result in one of the two following negative outcomes.

³⁰⁷ Exh. Q-1-1, Attach. 6, p. 1 Filed: 2017-12-21.

³⁰⁸ Oral Hearing Transcript Volume 11, page 16-17.

- a) In the absence of recalibration of the adjustment factors, an undue subsidy from Hydro One's legacy customers would be required.
 - b) In the situation where the calibration of the adjustment factors is commensurate with asset renewal at Hydro One's higher costs, harm in the form of relatively higher rates to the customers of the Acquired Utilities would need to be imposed.
- 3) Hydro One argued that its proposal adheres to previous OEB determinations with respect to treating the Acquired Utilities as separate rate classes and that its proposal to do so is in response to OEB direction. The OEB does not accept Hydro One's contention. The OEB has provided clear guidance with respect to its expectations that evidence of lower cost structures relied on in acquisition proposals are expected to result in concomitant lower rates. Hydro One would be expected to apply any distinguishable cost causation analysis relied on in an acquisition application to any customers that met the identified cost causation criteria whether they are new or legacy customers. The OEB did not direct Hydro One to isolate the Acquired Utilities in its cost allocation methodology. Hydro One has not demonstrated that its proposal is equitable to all customers.
- 4) Hydro One's cost allocation evidence indicates that in the absence of adjustment factors, Hydro One's long term costs to serve the Acquired Utilities are higher than the costs of those previous utilities. This is in direct contradiction to the evidence relied on in its acquisition proposals.

The OEB's approach to considering acquisition proposals has been articulated in previous decisions and related policy documents.³⁰⁹ Most importantly for consideration in this application are the OEB findings in the acquisition approvals that are the subject of Hydro One's current rate proposal.

The Norfolk acquisition decision contained the OEB's rationale for focusing on comparative cost structures in its approach to facilitating effective and efficient utility consolidation. The following statements from that decision explain the OEB's expectations with respect to purchase offers and underpinning cost structures.

The intent of the framework established by the 2007 Report is that the amount of a premium paid by a purchaser would be determined by the purchaser's ability to serve the acquired service area at a lower cost over a given period. The

³⁰⁹ Ontario Energy Board, *Handbook to Electricity Distributor and Transmitter Consolidations*, January 19, 2016.

difference between the actual cost of service and revenues generated during the given rate deferral period is intended to provide the purchaser with the funds to cover the transaction costs of the acquisition, including any premiums. This aspect of the framework acts as a positive economic factor in the consolidation marketplace by favoring the purchaser that is able to serve the acquired service area at the lowest cost. The Board's future rate setting (whether or not on a harmonized basis) will be based on forward costs, and a purchaser should not expect that the revenues from future rates will provide any funds to cover any purchase premium.³¹⁰

It is clear that the OEB's framework for consolidations is intended to ensure costs to serve a given service area following an acquisition will be no higher than they otherwise would have been.

In accordance with the 2007 Report, the Board's decision will not consider future rates at this time. However, as indicated in the Motion Decision, in applying the no harm test it is appropriate for the Board to assess the cost structures that will be introduced as a result of the acquisition, in comparison to the cost structures that underpin NPDI's current rates. A downward impact on cost structures would tend to decrease rates, whereas an upward impact on cost structures would tend to increase rates. This will occur regardless of what decision is taken concerning rate harmonization at the time of rate rebasing.³¹¹

It is clear that the OEB's framework for consolidations is focused on the comparison of proposed costs to serve a given service area with that of the incumbent's costs.

While the comparison of proposed costs is the main focus of consideration of an acquisition proposal, the OEB has found that all of its statutory objectives are considered in applying the no harm test. Quality of service and reliability, including the capacity to meet modern customer expectations, are also considered. The focus of the analysis regarding the Acquired Utilities in this proceeding is solely on the cost comparisons because the acquisition approvals relied on Hydro One's cost forecasts.

An objective of the OEB's consolidation framework is to ensure that the consolidation of the distribution sector results in beneficial outcomes for customers. The negative impacts of suboptimal consolidations are long lasting and stifling to economic

³¹⁰ EB-2013-0196/EB-2013-0187/EB-2013-0198 *Decision and Order*, July 3, 2014, p. 15.

³¹¹ *Ibid*, p. 16.

improvements in the sector due to the removal of opportunities for the optimal consolidation envisioned in the OEB framework.

Hydro One argued that the OEB does not regulate Hydro One's management of its business strategies. The OEB agrees, however, the OEB does have the mandate and responsibility to respond to the outcome of those strategies. If the outcome is counter to the public interest objective that was clearly articulated in the OEB's decisions approving Hydro One's proposed acquisitions, it is appropriate for the OEB to consider the consequences.

Hydro One's rates proposal in this proceeding does not reflect the OEB's determinations in its acquisition decisions. Hydro One had the opportunity to inform the OEB prior to completing its approved transactions if it did not anticipate being able to deliver on the OEB's clear expectations. The OEB finds that any shortfall in revenue requirement that results from Hydro One's costs being higher than its current and future approved revenues associated with the Acquired Utilities shall be absorbed by Hydro One and not form any part of the overall revenue requirement.

Hydro One may apply to the OEB for a rate adjustment mechanism under the Price Cap IR approach to be applied to the current base rates for the Acquired Utilities, to take effect at the end of the respective deferred rebasing periods.

The determination that Hydro One is to absorb revenue shortfalls associated with its cost to operate the Acquired Utilities eliminates the negative impact that Hydro One's rate proposal would have had on its customers. It does not however undo the negative impact that these acquisitions have caused to the smooth and effective consolidation of the sector.

The OEB has a mandate to ensure the financial viability of the sector. The OEB considers matters of consolidation to be of utmost importance to the financial viability of the sector. The ongoing cost of ownership of these entities to Hydro One and the lost opportunity for actual improvements in distribution sector efficiency are negative impacts that run counter to the objectives of the OEB's consolidation framework. The record of this proceeding and these determinations are available for consideration in future related OEB hearings.

Hydro One has included the cost of an integrated system operation centre (ISOC) to be built in Orillia in its stated revenue requirement. A question arose in this proceeding with respect to the relationship between Hydro One's intent to construct the ISOC and its

proposal to acquire Orillia Power Distribution Corporation (OPDC).³¹² Hydro One's evidence in this proceeding is that it intends to construct the ISOC irrespective of whether or not it acquires OPDC. Hydro One also filed evidence supporting the Orillia location as the recommended alternative.

The OEB takes note of this issue here as it relates to the consolidation framework that the OEB has put in place. Hydro One has a major presence in the province with its transmission and distribution systems being the most expansive network in the province. Hydro One has many efficient and effective options for facility placements to meet its ongoing needs. Local economic development associated with the siting of these facilities is not a determinative consideration for the OEB in approving acquisitions, or in approving rates to cover the associated cost. In Hydro One's case, with its numerous efficient placement options, the positive economic development will occur wherever the facility is situated. The OEB's consideration of long-term acquisition-related impact on rates is not influenced by Hydro One's choice of the location of new facilities and the concomitant local shareholder's motivation to sell.

The OEB directs Hydro One to place the revenue requirement associated with the forecast cost of this ISOC in an asymmetric variance account to be offset by the revenue requirement at the actual cost. If the revenue requirement at the actual cost is lower than the revenue requirement at the forecast cost, Hydro One will be required to return the difference to its customers. The account balance will be considered for disposition in Hydro One's next rebasing application.

3.10 DEFERRAL AND VARIANCE ACCOUNTS

3.10.1 Disposition of Balances (Issue 57)

Hydro One is seeking to dispose of a total debit balance of \$8.3 million with respect to its deferral and variance accounts, representing the principal balances in its Group 1 accounts as of December 31, 2014 and Group 2 accounts as of December 31, 2016, with interest calculated to December 31, 2017.

In its original application, Hydro One sought disposition of its Group 1 and 2 principal balances as of December 31, 2016. However, the OEB issued a letter to Hydro One indicating that it will be undertaking an audit of Hydro One's Regulated Price Plan

³¹² On April 12, 2018, the OEB issued its EB-2016-0276 *Decision and Order* denying Hydro One's application to acquire OPDC. On September 26, 2018, Hydro One filed a new application (EB-2018-0270) to acquire OPDC. This is presently under review by the OEB.

settlement process, and to assess the allocation methodology Hydro One uses to assign balances for Group 1 deferral and variance accounts for all acquired utilities from 2015 onwards. The results of the audit could affect the 2015 and 2016 Group 1 account balances. As a result, Hydro One amended its request to seek the disposition of only a total of \$8.3 million comprised of:

- Group 1 principal account balances to the end of 2014
- Group 2 principal account balances to the end of 2016
- Interest for both Group 1 and Group 2 accounts projected to December 31, 2017

Table 19 below provides details of the account balances proposed for disposition. Hydro One has proposed that these amounts be recovered over a one-year period.

Table 19 - Account Balances Proposed for Disposition

Account Name	Account Number	Total Claim \$Million (Interest and Principal)
Group 1 (Principal as of Dec 31, 2014)		
Smart Meter Entity Charge Variance Account	1551	0.5
LV Variance Account	1550	6.1
RSVA - Wholesale Market Service Charge	1580	(91.6)
RSVA - Retail Transmission Network Charge	1584	44.5
RSVA - Retail Transmission Connection Charge	1586	30.6
RSVA - Power - Sub-Account -Power	1588	8.3
RSVA - Power - Sub-Account -Global adjustment	1589	9.6
Total Group 1		8.0
Group 2 (Principal as of Dec 31, 2016)		
RCVA	1518/1548	0.7
Pension Cost Differential Account	1508	7.9
Tax Rate Changes Account	1592	(4.4)
OEB Cost Differential Account	1508	(1.3)
Revenue Offset Difference Account - Pole Attachment Charge	2405	(2.3)
Bill Impact Mitigation Variance Account	1508	2.4
Microfit Connection Charge Variance Account	1508	(0.8)
DG - Other Costs - HONI - Variance Account	1533	0.6
DG - Express Feeders - HONI - Variance Account	1533	0.0
Smart Grid Variance Account	1536	(12.2)
DSC Exemption Deferral Account	1508	9.7
Total Group 2		0.3
Total Group 1 and Group 2		8.3

Hydro One stated that all of the regulatory accounts have been established consistent with the OEB's Accounting Procedures Handbook, OEB directions, or pursuant to specific requests initiated by Hydro One.

OEB staff supported Hydro One's decision to seek only the disposition of its Group 1 principal account balances as of December 31, 2014 due to the OEB audit noted above. However, OEB staff submitted that pursuant to the July 20, 2018 direction from the OEB to all rate-regulated licensed electricity distributors regarding OEB approval of Group 1 rate riders, the proposed disposition of Hydro One's Group 1 accounts should not be approved on a final basis. OEB staff further submitted that an IESO credit of \$121.8 million that was received by Hydro One between April and November 2017, but related to the Global Adjustment from January 2005 through to August 2016, should be prorated and applied against the balance in Account 1589 at December 31, 2014.

BOMA supported OEB staff's proposals on this issue.

Hydro One replied that it has not applied the IESO credit to the balance being sought for disposition because the appropriate regulatory and accounting treatment of the IESO credit dictates that it be applied as of 2017 (the period in which it was received). Hydro One noted that the IESO credit was not due to an error on its part, but an interpretation of the settlement rules to which the IESO has agreed.

CME submitted that in order to reduce the long-term interest cost to ratepayers, the OEB should consider requiring Hydro One to recover the original \$30.9 million over five years, but to track any differences resulting from the outcome of the OEB audit. CME further submitted that if the OEB approves disposition of the \$8.3 million balance it should be over a two-year period to minimize rate impacts. Finally, CME argued that any balances below \$1 million are not material and should be denied for recovery.

Findings

The OEB approves the disposition on an interim basis of the Group 1 deferral and variance accounts as at December 31, 2014, the Group 2 deferral and variance accounts as at December 31, 2016 and interest projected to June 30, 2019. Hydro One shall calculate the revised balance with the updated interest projection. Given the uncertainty of the results of the audit, the OEB agrees it is reasonable not to dispose of 2015 and 2016 Group 1 balances at this time, even if balances are disposed on an interim basis.

The OEB is concerned about the delay in returning the \$121.8 million credit to customers. The OEB recognizes that in accordance with standard accounting practice the credit has been recorded in the 2017 balance for financial reporting purposes. Regulatory accounting does not need to be the same as financial reporting if this does not result in a reasonable outcome for customers. A credit of this magnitude is unusual and the OEB finds that customers should benefit from a portion of this adjustment as soon as possible. The OEB therefore requires Hydro One to return 50% of this credit to

customers now and the remaining credit when balances are next disposed. The total approved for disposition is therefore a credit of \$52.6 million.³¹³

The OEB notes that the materiality thresholds for deferral and variance accounts in the OEB's *Filing Requirements for Distribution Rate Applications – Chapter 2 Cost of Service* are for the purposes of determining whether a new account will be established. The OEB will therefore not use the materiality thresholds for determining whether balances recorded in an existing account will be disposed.

3.10.2 New Deferral and Variance Accounts (Issue 58)

Hydro One is seeking approval to establish the following regulatory deferral and variance accounts:

- Other Post-Employment Benefit (OPEB) Cost Deferral Account
- Lost Revenue Adjustment Mechanism Variance Account (LRAMVA)
- Earning Sharing Mechanism (ESM) Deferral Account
- Capital In-Service Additions (CISAVA) Variance Account
- Bill Impact Mitigation Variance Account – Acquired Utilities

Hydro One noted that accounting orders were provided in its application for new accounts and in answer to interrogatories for existing accounts.

Other Post-Employment Benefit (OPEB) Cost Deferral Account

This account would track the impact of the March 2017 Financial Accounting Standards Board Account Standard Update (ASU) 2017-07,³¹⁴ which affected the accounting for certain pension and OPEB costs effective January 1, 2018. Hydro One has stated that because it accounts for pension costs on a cash basis for rate-setting purposes, there is no impact expected to the pension costs in its application. OPEB costs are accounted for on an accrual basis for rate-setting purposes and the ASU 2017-07 standard permits only the service component of this cost to be capitalized. Hydro One has requested the account to record the net periodic post-retirement benefit cost other than service cost

³¹³ Balance to be adjusted for interest projected to June 30, 2019.

³¹⁴ Hydro One uses United States Generally Accepted Accounting Principles (US GAAP) for its accounting.

that would have been classified as capital prior to the issuance of ASU 2017-07 in a deferral account effective January 1, 2018.³¹⁵

Hydro One proposed two alternatives to establishing the deferral account. The first would be to increase the OM&A forecast in this application to account for the OPEB costs that can no longer be capitalized.³¹⁶ The second would be for the OEB to approve the continued capitalization of its OPEB costs. At the oral hearing, Hydro One explained that the ASU 2017-07 standard permits the continued capitalization of OPEB costs by a regulated utility without a deferral account if approved by its regulator.³¹⁷ This last option is the approach preferred by Hydro One.

OEB staff submitted that the OEB should not approve the establishment of the OPEB Cost Deferral Account because the estimated \$13 million impact in the 2018 test period represents less than 1% of the forecast 2018 revenue requirement and therefore its overall impact on rates is not significant enough to warrant a mitigation strategy. OEB staff further argued that the OEB should not approve the continued capitalization of the OPEB costs impacted by the new standard because of concern about the magnitude of Hydro One's overhead capitalization.

SUP supported the continued capitalization of OPEB costs, as it believes appropriate regulatory principles are met by this policy. SUP also supported the establishment of the deferral account to accommodate the OPEB costs ineligible for capitalization due to the recent US GAAP change, and agreed that this matter be reviewed in detail at the time of Hydro One's next transmission proceeding.

Hydro One submitted that the OEB should allow it to continue to capitalize impacted costs as a result of the change in the US GAAP accounting standard for pension and OPEBs. The Federal Energy Regulatory Commission (FERC) has allowed utilities in the United States to do so, and the continued capitalization of these costs means that it would not need to increase its 2018 revenue requirement by \$13 million.

In a June 27, 2018 letter, the OEB stated that this issue is best addressed in the next transmission proceeding because it is relevant to both Hydro One's transmission and distribution operations. The letter stated as follows:

The OEB asked Hydro One if doing so would place any limitations on the OEB's discretion, and whether the full range of possibilities available now would still be available if this matter is dealt with later. Hydro One responded that it did not

³¹⁵ Exhibit F1-3-1, page 12, June 7, 2017.

³¹⁶ *Ibid*, page 6.

³¹⁷ Argument-in-Chief, page 154.

believe that any restrictions or constraints would be placed on the OEB's ability to address this issue for both transmission and distribution in the transmission proceeding. On this basis, the OEB will not further consider this matter in the current proceeding.

Findings

The OEB previously determined that it would not make a determination on the capitalization of OPEB costs in this proceeding. The OEB is establishing the deferral account requested by Hydro One to record the OPEB costs included in Hydro One's forecasts that can no longer be capitalized as a result of the ASU 2017-07 standard. This account allows all regulatory options to be considered in a future proceeding. The account is not intended to result in any true-up between Hydro One's actual and forecast OPEB costs. The account is effective January 1, 2018, the date when the accounting standard changed.

The deferral account will be in effect until the OEB has made a determination on this matter, which is expected to occur in Hydro One's next rebasing transmission rate proceeding. The OEB established a similar deferral account for Hydro One's transmission operations.³¹⁸

Hydro One is expected to file the necessary evidence in its next rebasing transmission rate proceeding to permit this matter to be determined for both Hydro One's transmission and distribution operations, as outlined in the OEB's letter of June 27, 2018.

In the draft rate order, Hydro One shall file details of the OPEB costs included in its OM&A and capital forecasts that can no longer be capitalized as a result of the ASU 2017-07 standard.

Lost Revenue Adjustment Mechanism Variance Account (LRAMVA)

The LRAMVA captures, at the customer rate class level, the difference between actual verified results from a distributor's conservation and demand management (CDM) activities and the threshold forecast CDM activities in a distributor's OEB-approved load forecast. Hydro One has requested an LRAMVA for the years 2018 to 2020.

VECC, supported by CCC, submitted that the OEB should not approve the establishment of Hydro One's LRAMVA because the assumptions used by Hydro One to establish the proposed LRAMVA threshold forecast values are not the same

³¹⁸ EB-2017-0338.

assumptions used by Hydro One in its load forecast. VECC submitted that Hydro One was unable to provide a schedule that breaks down the overall impact of energy efficiency programs that was used in its load forecast.

To develop its load forecast, Hydro One used a total CDM forecast based on its share of the CDM savings from the IESO's Ontario Planning Outlook. Hydro One submitted that for the purposes of determining its load forecast it used the same approach to CDM as was approved by the OEB in the past. Hydro One submitted that the load forecast must be based on the total CDM impact, not just the target programs funded by the IESO.

To determine the LRAMVA threshold target, Hydro One used the energy efficiency program target specific to Hydro One, which is a cumulative target of 1,159,020 MWh from 2015 to 2020. Hydro One argued that the energy efficiency program targets are a component of the total CDM amount in the IESO's Ontario Planning Outlook, and therefore are implicitly included in Hydro One's load forecast.

Findings

The OEB will not establish the LRAMVA account unless Hydro One can provide details in the draft rate order on what component of the CDM adjustment to its load forecast is related to Hydro One's energy efficiency programs, by customer class. Without this information, the LRAMVA threshold forecast values cannot be accurately established.

The OEB established the LRAMVA so that lost revenue is not a disincentive for distributors in meeting their CDM requirements. The OEB acknowledges Hydro One's argument that it is appropriate for the adjustment to its load forecast to be based on the forecast total CDM impact, which is inclusive of the impact of Hydro One's energy efficiency programs. However, the LRAMVA should only track differences between forecast CDM savings included in the load forecast for the energy efficiency programs specific to Hydro One and the actual verified CDM savings for those programs.

Hydro One's approach to its load forecasting does not appear to allow for identification of CDM savings specific to Hydro One. Hydro One has used an allocated percentage of the CDM savings from the IESO's Ontario Planning Outlook for the purposes of its load forecast,³¹⁹ but has used its actual savings targets to propose the threshold forecast values for use in the LRAMVA.

³¹⁹ For energy efficiency programs the share is 13.71% based on Hydro One's share of savings from 2011 to 2014, and for codes and standards the share is 16.56% based on targeted savings from 2015 to 2020.

The OEB's filing requirements provide guidance on an approach that can be used for the CDM forecast to be used for the LRAMVA calculation. However, the filing requirements also refer to the corresponding adjustment to the load forecast.³²⁰ The OEB finds that the basis for the target threshold by class for the LRAMVA for energy efficiency programs must be the same as the basis for the adjustment to the load forecast for those same programs.

Hydro One has provided a load forecast for the whole 2018 to 2022 term, and rates are established based on that forecast. The target threshold for the LRAMVA therefore must be set for that same period based on the component of the CDM adjustment to the load forecast from the energy efficiency programs specific to Hydro One. To do otherwise would calculate an LRAM variance that is not aligned with how rates were set.

The methodology for incorporating CDM in the load forecast is further discussed under Issue 46.

Earnings Sharing Mechanism (ESM) Deferral Account

The earnings sharing mechanism deferral account records the amount of earnings to be shared with customers if Hydro One's earnings exceed a predetermined level. The OEB's findings on the ESM are under Issue 15, including the establishment of a deferral account to record earnings to be shared.

Capital In-Service Additions (CISAVA) Variance Account

Hydro One has proposed a Capital In-Service Additions Variance Account (CISAVA) to track the difference between the revenue requirement associated with actual in-service capital additions and the revenue requirement associated with the OEB-approved in-service capital additions. The variance account would track, on a cumulative basis, capital in-service additions that are 98% of the OEB-approved amount or less over the five-year term. This calculation would exclude the revenue requirement from in-service capital additions resulting from verifiable productivity gains. Hydro One would seek disposition of the account at the end of the five-year term. No amount would be recorded if the cumulative capital additions exceed 98% of the OEB-approved amount.

³²⁰ Filing Requirements for Electricity Distribution Rate Applications - Chapter 2 Cost of Service, page 25 state: "The distributor should document the CDM savings to be used as the basis for the 2019 LRAMVA balance and the **corresponding** adjustment to the 2019 load forecast". [emphasis added].

SEC does not support the creation of CISAVA variance account for Hydro One because Hydro One “does not appear to suffer from this problem” as Hydro One has “consistently brought more capital into service” in relation to the OEB-approved level.

CME further submitted that there is no justification for the OEB to approve a 2% buffer for the CISAVA variance account.

Hydro One submitted that it believes the CISAVA (as currently proposed with the 98% threshold) strikes an appropriate balance between providing protection to ratepayers and incenting appropriate behaviours in its capital program. However, should the OEB agree with SEC that the account is not required; Hydro One does not have an issue with withdrawing its request for the CISAVA.

Findings

The OEB is establishing the CISAVA requested by Hydro One. This is a mechanism that incents Hydro One to meet its capital program commitments each year.

SEC has argued that underspending has not typically been an issue for Hydro One, and Hydro One overspent on in-service capital by \$122.5 million from 2015 to 2017.

The OEB is satisfied that customers are protected from overspending through other mechanisms. If Hydro One spends more than its approved capital budget, it will receive no additional funding during the term of the framework beyond what has been approved because funding is based on forecast spending. Furthermore, there is no guarantee that the OEB will approve the inclusion in rate base of any overspending as part of the next rebasing application.

CME argued that the account should not include the 98% deadband. The OEB finds that it is reasonable to allow some variation for in-service capital from year to year because Hydro One is expected to adapt to changing circumstances.

Bill Impact Mitigation Variance Account – Acquired Utilities

Hydro One has requested an account to record the costs to mitigate bill impacts as a result of integrating customers from the Acquired Utilities into Hydro One’s existing rate classes in 2021. Hydro One submitted that the proposed account is consistent with accounts established in other OEB proceedings.³²¹ The account would commence in 2021 but would likely extend beyond the term of this rate framework.

³²¹ EB-2007-0681, EB-2009-0096, and EB-2013-0416.

Hydro One proposed a rate mitigation plan, in the form of a bill credit, for three customer classes of the Acquired Utilities so they will not experience total bill impacts greater than 10%:

- street lighting
- sentinel lighting
- unmetered scattered load (USL)

Findings

The OEB is not establishing this account. Details of the integration of the Acquired Utilities are discussed under Issue 56. As the OEB has determined that the revenue requirement for the Acquired Utilities will not be integrated during the plan term, there is no need to mitigate bill impacts for the customers of the Acquired Utilities.

Under Issue 56, the OEB ordered the establishment of a new asymmetrical variance account to record the difference between the revenue requirement associated with the forecast cost of the ISOC and revenue requirement at the actual cost. Hydro One is directed to file an accounting order for this new account as part of the draft rate order.

3.10.3 Deferral and Variance Accounts to be Discontinued (Issue 59)

Hydro One has proposed that the following four accounts be discontinued:

- Rural or Remote Electricity Rate Protection (RRRP) Variance Account;
- Bill Impact Mitigation Variance Account
- Revenue Offset Difference Account – Pole Attachment Charge
- Revenue Difference Account – Pole Attachment Charge.

Hydro One noted that the Bill Impact Mitigation Variance Account it is proposing to discontinue was established to mitigate bill impacts for customers expected to experience a significant bill impact in 2015 as a result of changes in customer rate classes.³²² Hydro One separately requested under Issue 58 to establish a Bill Impact Mitigation Variance Account to mitigate bill impacts of customers of the Acquired

³²² EB-2013-0416.

Utilities.

OEB staff submitted that in light of the on-going parallel proceeding on the pole attachment charge, the Revenue Offset Difference Account – Pole Attachment Charge; and Revenue Difference Account – Pole Attachment Charge may again be required pending the outcome of that parallel proceeding.

Hydro One agreed with OEB staff's suggestion to keep these two accounts open pending the outcome of the parallel proceeding.

No other concerns were expressed on closing these four accounts.

Findings

The OEB approves the closing of the four accounts effective December 31, 2018. The OEB agrees that the accounts are no longer required.

3.11 EFFECTIVE DATE

The OEB does not consider Hydro One's proposed effective date of January 1, 2018 to be reasonable. Hydro One's last Custom IR application took just over 10 months from the filing of the application to the filing of its reply submission.³²³ With a 3 month allowance for the OEB to make its determinations and issue a decision it is reasonable for Hydro One to have expected that this application to take at least a year to complete.

Hydro One's initial filing on March 31, 2017 was found to be lacking in certain information which was identified in a May 1, 2017 letter to Hydro One.³²⁴ The additional information was filed and Notice issued on May 16, 2017. The OEB considers May 1, 2018 to be a reasonable effective date given the date that Hydro One's complete application was received.

While the OEB is setting May 1, 2018 as the effective date for new rates for Hydro One, rates will not be implemented until July 1, 2019. This means that the incremental base revenue requirement provided by this Decision from May 1, 2018 to June 30, 2019 (14 months) would normally be recovered from ratepayers during the concluding six months

³²³ EB-2013-0416/EB-2014-0247. The application was filed on December 19, 2013 and Hydro One's reply submission was filed on October 27, 2014.

³²⁴ OEB Letter of May 1, 2017 identifying additional information required.

of 2019. This may require mitigation to ensure bill impacts are reasonable for all of Hydro One's customer classes.

Hydro One shall provide, as part of the draft rate order (DRO) process, scenarios demonstrating the impacts of both the aforementioned recovery period and other scenarios with the recovery spread over longer periods of time.

In this context, the OEB notes that the R1 and R2 residential rate class ratepayers of Hydro One are provided rate relief by the Distribution Rate Protection program (DRP) which caps the monthly base distribution charges.³²⁵ This program is a component of the Ontario government's Fair Hydro Plan and caps base distribution charges for residential customers. The current maximum monthly distribution charge is currently \$36.86.

The delay in the implementation of this Decision and Order's base distribution rates should not require those ratepayers to forego any part of the DRP. The OEB thus will approve base distribution rates for a six month period (or a longer period if mitigation is required) commencing July 1, 2019 that will recover the total approved base revenue requirement.

The OEB will accordingly expect that the scenarios provided by Hydro One will include base distribution rates during the six months from July 1, 2019 to December 31, 2019 (or a longer period if required) that will recover the approved incremental base revenue requirement for the 14 month prior period discussed above. This means that the R1 and R2 class ratepayers will be held harmless from the consequences of any delay in setting rates. The end result will be the same for Hydro One as if the rates had been implemented May 1, 2018, as will the total monetary amount of the bill reductions afforded by the DRP to ratepayers. For the R1 and R2 rate classes, Hydro One's filed material should provide the rate impacts inclusive of the DRP impacts with all necessary explanations.

In addition, in order to determine the starting point for Hydro One's first annual update application, as part of the rate order process the OEB will also approve base distribution rates for May 1, 2018, January 1, 2019 and January 1, 2020, if necessary, upon which any rate adjustments would apply. Hydro One shall include a proposal for the base distribution rates for all necessary years as part of the DRO process.

³²⁵ O.Reg 198/17.

4. ORDER

IMPLEMENTATION AND ORDER

The OEB directs Hydro One to file a draft rate order reflecting the OEB's findings in this Decision and Order complete with detailed supporting material, including:

- Revenue Requirement Work Forms (RRWF) showing the determination of revenue requirements for each of the five years 2018 to 2022 including updated supporting appendices and all relevant calculations
- The impact of the OEB's findings in the Tax Savings Determination decision and order (EB-2018-0269), which upheld the OEB findings in decision and order EB-2016-0160, on the revenue requirement in this proceeding which must be provided in sufficient detail to demonstrate how the findings of the EB-2018-0269 decision and order have been appropriately reflected in the DRO for this proceeding with all necessary supporting documentation
- A schedule (or schedules) clearly showing the allocation of the revenue requirements from this Decision and Order to the customer classes for 2018 to 2020
- A schedule (or schedules) clearly showing the calculations of base rates, including the incremental revenue requirement for the 14 months from May 1, 2018 to June 30, 2019, with appropriate explanations
- A schedule of final rates and all approved rate riders, including bill impacts (in a table similar to that filed at Exhibit H1-4-1, Attachment 1) and a calculation showing reconciliation of the total revenues by class to the revenue requirements, along with any other related documentation Hydro One may consider necessary
- A detailed plan as to how Hydro One will address rate mitigation that may be necessary
- All other requirements specified by the OEB in this Decision and Order for inclusion in the draft rate order
- Any other documentation that would assist intervenors, OEB staff and the OEB in their consideration of the proposed draft rate order

THE ONTARIO ENERGY BOARD ORDERS THAT:

1. Hydro One shall file with the OEB, and forward to all intervenors, a draft rate order that includes all items listed above, including revised models in Microsoft Excel format as appropriate and a proposed Tariff of Rates and Charges reflecting the OEB's findings no later than April 11, 2019.
2. OEB staff and intervenors shall file any comments on the draft rate order with the OEB and provide a copy to Hydro One no later than April 25, 2019.
3. Hydro One shall file with the OEB and forward to intervenors, responses to any comments on its draft rate order no later than May 9, 2019.

All filings to the OEB must quote the file number, EB-2017-0049, be made in searchable /unrestricted PDF format electronically through the OEB's web portal at <https://www.pes.ontarioenergyboard.ca/eservice/>. Two paper copies must also be filed at the OEB's address provided below. Filings must clearly state the sender's name, postal address and telephone number, fax number and e-mail address. Parties must use the document naming conventions and document submission standards outlined in the RESS Document Guideline found at <http://www.oeb.ca/Industry>. If the web portal is not available parties may email their documents to the address below. Those who do not have internet access are required to submit all filings on a CD in PDF format, along with two paper copies. Those who do not have computer access are required to file 7 paper copies.

All communications should be directed to the attention of the Board Secretary at the address below, and be received no later than 4:45 p.m. on the required date.

With respect to distribution lists for all electronic correspondence and materials related to this proceeding, parties must include the Case Manager, Martin Davies, at martin.davies@oeb.ca and OEB Counsel, James Sidlofsky, at james.sidlofsky@oeb.ca.

DATED at Toronto March 7, 2019

ONTARIO ENERGY BOARD

Original Signed By

Kirsten Walli
Board Secretary

APPENDIX 1

THE PROCEEDING, PARTICIPANTS AND WITNESSES

THE PROCEEDING

On March 31, 2017, Hydro One filed an application with the Ontario Energy Board under section 78 of the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule B seeking approval for changes to its distribution rates, to be effective January 1, 2018 to December 31, 2022.

The OEB issued a Notice of Hearing on May 24, 2017. In response to the Notice, the OEB granted intervenor status to 30 parties.

The OEB received more than 3,000 letters of comment from ratepayers across Ontario, generally expressing the viewpoint that no increase should be granted and that Hydro One should control costs by becoming more efficient and controlling salaries.

An interrogatory process was held in the months of January and February 2018 and Hydro One senior management made a presentation of its application to the OEB, OEB staff and intervenors on December 7, 2017. A transcribed Technical Conference was held March 1, 2 and 5, 2018 to clarify matters arising from the interrogatories.

Hydro One updated its pre-filed evidence in this case on June 7, 2017 and again on December 21, 2017.

The OEB approved an issues list for this case on January 10, 2018.

Decision on Interim Rates

On December 1, 2017, in response to a request from Hydro One, the OEB agreed that there would not be a decision for the current proceeding in time for Hydro One to implement rates effective January 1, 2018 and found that Hydro One's current rates would be made interim effective January 1, 2018.

The Hearing

The oral hearing began on June 11, 2018 and continued for 11 hearing days, concluding on June 28, 2018. Hydro One submitted its Argument-in-Chief on July 20, 2018. OEB staff's submission was filed on August 3, 2018 and intervenor submissions

were complete by August 14, 2018. Hydro One's Reply Argument was filed on August 31, 2018.

Subsequent Process

A motion hearing was held on October 18, 2018 concerning a motion filed by Rogers Communication Canada Inc. with respect to the pole attachment issue. This matter was resolved when Hydro One advised the OEB on November 2, 2018 that it had elected to apply for the OEB's province-wide pole attachment charge of \$43.63. The OEB also conducted a subsequent process to ensure that the rates established in this proceeding were in conformity with the *Hydro One Accountability Act, 2018*. Hydro One's Reply Argument for this subsequent process was filed on December 6, 2018.

PARTICIPANTS

A list of participants and their representatives who were active either at the oral hearing or at another stage of the proceeding is shown below. A complete list of intervenors is available at the OEB's offices.

OEB counsel and staff (OEB staff)

James Sidlofsky,
Harold Thiessen,
Martin Davies, Keith Ritchie,
Donald Lau, Andrew Frank,
Mark Rozic, Chris Oakley

Hydro One Networks Inc. (Hydro One)

Gordon Nettleton, George Vegh,
Lisa Lee, Eryn McKinnon

Anwaatin Inc. (Anwaatin) and
Energy Storage Canada (ESC)

Elisabeth DeMarco,
Jonathan McGillivray,
Cary Ferguson

Association of Major Power
Consumers of Ontario (AMPCO)

Shelley Grice

Balsam Lake Coalition and
Arbourbrook Estates

Michael Buonaguro,
Nicholas Copes

Building Owners and Managers
Association Toronto

Tom Brett

Canadian Manufacturers and Exporters (CME)	Emma Blanchard, Erin Durant, Scott Pollock, Randy Aiken
City of Hamilton	Robert Warren, Ada Keon
Consumers Council of Canada (CCC)	Julie Girvan
Energy Probe Research Foundation (Energy Probe)	Tom Ladanyi, Brady Yauch
Ontario Sustainable Energy Association (OSEA)	Joanna Vince, Robert Woon, Marion Fraser, Victoria Chai
Power Workers' Union (PWU)	Richard Stephenson, Bayu Kidane
Quinte Manufacturers Association (QMA)	Michael McLeod
Rogers Cable Communications Inc.	Timothy Pinos, Christopher Selby, Michael Piaskoski
School Energy Coalition (SEC)	Mark Rubenstein, Jay Shepherd
Society of United Professionals (SUP)	Bohdan Dumka, Vicki Power
Vulnerable Energy Consumers' Coalition (VECC)	Mark Garner, Ben Segel-Brown, Bill Harper

WITNESSES

Twenty-seven witnesses testified at the oral hearing.

Witnesses called by Hydro One (all Hydro One employees):

Chris Lopez, Senior Vice President – Finance
Frank D'Andrea, Interim Vice President – Regulatory Affairs & Chief Risk Officer
Henry Andre, Director – Pricing and Load Forecasting
Samir Chhelavda, Director – Corporate Accounting & Reporting
Joel Jodoin, Senior Financial Advisor – Financial Planning
Keith McDonnell, Director – HR Projects
Ferio Pugliese, Executive Vice President - Customer Care and Corporate Affairs

Imran Merali, Director – Custom Program Delivery
Derek Chum, Vice President – Indigenous Relations
Darlene Bradley, Vice President – Planning
Bruno Jesus, Director – Strategy and Integrated Planning
Lyla Garzouzi, Director – Distribution Asset Management
Brad Bowness, Vice President – Distribution
Rob Berardi, Vice President – Shared Services
Lincoln Frost-Hunt, Director – Enterprise IT
Tom Irvine, Director – System Control
Bijan Alagheband, Manager – Economics and Load Forecasting
Clement Li, Manager – Pricing
John Boldt, Manager – Asset Optimization (Tx Secondary Land Use & Dx Joint Use)

Non Hydro One Employees:

Custom IR Application Panel

Steven Fenrick, Leader, Economics & Market Research (Power System Engineering Inc.)

Finance & Compensation Panel

Iain Morris, Partner (Mercer Canada Limited)

Customer Engagement Panel

Sandra Guiry, Senior Vice President, Public Affairs (IPSOS Reid)
Brad Griffin, Senior Vice President, Head of Qualitative Canada (IPSOS Reid)

Expert Panel: Work Programs

Ben Grunfeld, Managing Director, Energy (Navigant)
Ken Buckstaff, Managing Director (First Quartile)
Steve Tankersley, Principal Consultant (Clear Path Utility Solutions LLC)

OEB Staff Witness:

Mark Lowry, President, Pacific Economics Group Research LLC

APPENDIX 2

SUMMARY OF OEB DIRECTIONS

The following list is a summary of directions for filing and other matters contained in this Decision and Order. Where any discrepancies exist between this list and the text of the Decision and Order, the text in the Decision and Order governs.

Hydro One shall:

- Explicitly identify, in its next application in which distribution rates are rebased (next rebasing application), initiatives to address reliability challenges experienced in northern communities including economically identified DER solutions.
- For its next rebasing application, continue with its current benchmarking, and expand it to include other capital programs and administration functions such as billing, call centre and corporate costs.
- File information in its next rebasing application for vegetation management, pole replacement, station refurbishment and IT, reporting on whether the projected outcomes from each of the benchmarking studies considered in this application have been realized.
- Demonstrate in its next rebasing rate application that proposed performance targets are set for each measure and each year, and that they represent an improvement relative to past performance and other benchmarks. Hydro One is to provide detailed reasons for any gaps or exceptions.
- Clearly describe, in future distribution rebasing applications, the methodology by which any claimed productivity savings are determined and whether those savings represent net cost savings for the company which would translate into reduced cost for the ratepayers. In addition, file a report, within twelve months of this Decision and Order, showing the status of the productivity initiatives listed in I-25-Staff-123, including actual savings, with a discussion of any deviation from plan. The report, is to be filed on a standalone basis and will not be adjudicated. Hydro One is expected to update the report to file with its next rebasing application.
- Demonstrate, in future applications, that OM&A options are being explicitly considered in investment decisions to either replace or defer capital investments, as applicable.

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- Provide a revised capital investment program as part of its first annual update explaining how the OEB-imposed reductions in this Decision and Order were accommodated in line with the OEB findings. This report is to be filed on a standalone basis to be used as a baseline for future reporting and will not be adjudicated during the annual update rate proceeding.
 - Submit a comprehensive report with the next rebasing application detailing actual performance in the execution of the capital program relative to plan. More specifically, the report should show the performance at the program level in terms of overall expenditures and in-service additions compared to plan. In addition, for major projects or programs with a total budgeted cost greater than \$3 million and which are planned to be completed during the test years, the report should show the status of each project or program and an explanation of any variances regarding scope, cost or schedule. This report follows the same format as the report ordered by the OEB in the EB-2016-0160 proceeding for Hydro One's transmission business.
 - Provision of an assessment of Hydro One's allocation methodology sufficient to allow for a detailed examination of this matter when Hydro One files a single application for distribution rates and transmission revenue requirement for the period 2023 to 2027
 - Filing of a report as part of its next rebasing application that compares Hydro One's capitalization of common corporate costs with those of other utilities in Ontario, Canada and North America. This should include utilities both under US GAAP and those using International Financial Reporting Standard (IFRS). Hydro One may need to disaggregate its corporate costs into separate cost elements in order to do an appropriate comparison.
 - Aggressively explore opportunities to improve its performance relative to its peers and report on these improvements, particularly on the introduction of a pole refurbishment program, in its next rebasing application.
 - For future rate applications, provide justification for the inclusion of any additional pension contributions in rates given the current surplus.
 - For any future Hydro One rebasing application, develop a consistent template for presenting compensation costs based on the direction provided by the OEB in prior proceedings.
 - Carry out further investigation on the use of weather data from multiple locations in the province and report back with its next rebasing application.
 - Consult with its customers on specific service charges and to report back to the OEB at the time of its next rebasing.

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- Update its line loss study for consideration in its next rebasing application, which should include an assessment of the actual line losses for a five-year period.
 - Place the revenue requirement associated with the forecast cost of the ISOC in an asymmetric variance account to be offset by the revenue requirement at the actual cost. If the revenue requirement at the actual cost is lower than the revenue requirement at the forecast cost, Hydro One will be required to return the difference to its customers. The account balance will be considered for disposition in Hydro One's next rebasing application.
 - Return 50% of the \$121.8 million credit to customers now and the remaining credit when balances are next disposed. The total approved for disposition is therefore a credit of \$52.6 million.
 - File the necessary evidence regarding the OPEB deferral account in its next rebasing transmission rate proceeding to permit this matter to be determined for both Hydro One's transmission and distribution operations as outlined in the OEB's letter of June 27, 2018.