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August 2, 2019

Via RESS

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
PO Box 2319
2300 Yonge Street, 27th floor
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: EB File No. EB-2018-0165, Toronto Hydro-Electric System Limited ("Toronto Hydro")
Custom Incentive Rate-setting ("Custom IR") Application for 2020-2024 Electricity Distribution Rates and Charges – Argument in Chief**

In accordance with OEB Procedural Order No. 4, please find the Argument in Chief enclosed. Physical copies will follow via courier.

Please contact me directly if you have any questions or concerns.

Respectfully,

Daliana Coban
Director, Regulatory Applications and Business Support
Toronto Hydro-Electric System Limited

cc: Lawrie Gluck, OEB Case Manager
Michael Millar, OEB Counsel
Parties of Record
Amanda Klein, Toronto Hydro
Andrew Sasso, Toronto Hydro
Charles Keizer, Torys LLP

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, Schedule B to the *Energy Competition Act, 1998*, S.O. 1998, c.15;

AND IN THE MATTER OF an Application by Toronto Hydro-Electric System Limited for an Order or Orders approving or fixing just and reasonable distribution rates and other charges, effective January 1, 2020 to December 31, 2024.

ARGUMENT-IN-CHIEF OF TORONTO HYDRO-ELECTRIC SYSTEM LIMITED

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INTRODUCTION

The plan that underpins Toronto Hydro's 2020-2024 rate application is fundamentally responsive. It responds to what Toronto Hydro's customers need and want, it responds to the Ontario Energy Board's (OEB) last decision for Toronto Hydro and guidance since, and it responds to the requirements of the grid and the city that the utility serves.

Toronto Hydro's plan proposed in this application comes at a critical time for the distribution system and the electrical service the utility provides to its customers. Accordingly, this proceeding has been extensive: spanning over 13,000 pages and including testimony from over 20 witnesses. Through this process, Toronto Hydro has demonstrated:

1. The proposed rates fund the **minimum level of investment needed** in Toronto's electricity distribution system. The utility's proposed expenditures are required to: (a) deliver outcomes that customers value such as maintaining service, reliability, and safety; (b) meet its legal obligations; (c) keep pace with growth in Canada's largest city; and (d) address continuing and emerging risks to the utility's grid and operations. These continuing and emerging risks include aging, deteriorating, obsolete and failing equipment; increasing frequency and severity of extreme weather; and, increasing threats to cyber security.

2. Toronto Hydro's plan is **supported by all customer classes,** because it successfully balances utility obligations and customer feedback. The utility has achieved this balance through incorporating customer feedback in its planning process from beginning to end, and directly reflected customer feedback in its spending proposals and rigorous outcomes framework. Toronto Hydro's plan balances the services customers want with what they are willing to pay. The plan successfully maintains service while keeping price increases as low as possible: the average annual distribution rate increase for a typical residential customer is less than 1.1%.

3. Toronto Hydro supported its plan, planning rationale, and processes through **robust evidence**. The utility built its plan on a foundation of rigorous justification for its proposed expenditures grounded in thorough analysis. It used improved business planning and asset management processes and tools, including through enhanced incorporation of customer feedback and use of benchmarking and third-party assessments. The resulting plan includes numerous ratepayer protections and plan-over-plan improvements.

4. Toronto Hydro has **satisfied all OEB requirements and policy guidance**. The utility has been responsive to all past OEB directives and current expectations, as well as ensured its plan advances the objectives of the Renewed Regulatory Framework. Toronto Hydro has also proposed a plan that is a continuation of both the program and rate framework approved by the OEB in the utility's last rate application.

5. Finally, the work funded through this application is a critical continuation of the **successful historical plan** that Toronto Hydro executed over the past five years. The utility completed the last plan's objectives efficiently and effectively, improved its performance on nearly all measures, and delivered on outcomes that customers value. At the same time, Toronto Hydro provided value-for-money and continued productivity gains for the benefit of customers despite mounting cost pressures.

These and all other relevant considerations are detailed in the following pages that form this Argument in Chief. For ease of reference, Toronto Hydro has set out a table of contents on the next page, and this document is structured in accordance with the Issues List in this proceeding.

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APPENDICES

1.0 GENERAL

1.1 Has Toronto Hydro responded appropriately to all relevant OEB directions from previous proceedings?

Toronto Hydro effectively and appropriately responded to all relevant OEB directions from previous proceedings.

1. Toronto Hydro appropriately responded to all relevant OEB directions from previous proceedings.[1] In addition, the utility enhanced its planning process to produce the 2020-2024 plan in a manner that is consistent with OEB guidance in the previous decision[2] and the Handbook for Utility Rate Applications (the "Handbook").[3] Specifically, Toronto Hydro:

    - **Enhanced its approach to customer engagement and integration of customer feedback into planning**: customer feedback was incorporated from beginning to end, which enabled Toronto Hydro to develop a plan that is directly responsive to customers' needs and priorities;[4]

    - **Adopted a customer-focused outcomes framework and associated metrics**: to guide utility planning, assess customer value of the proposed investments, optimize decision-making, and facilitate transparent reporting and utility accountability during the plan term, as further discussed in issues 2.1 and 2.2;[5]

    - **Improved its analytical tools and processes**: these assisted Toronto Hydro in making and demonstrating sound investment decisions, and creating a plan that appropriately manages system risks and performance, as further discussed in Issue 3.2; and

    - **Increased its use of benchmarking:** to assist with evaluating costs and performance, aligning to industry standards and best practices, and driving continuous improvement, as further discussed in Issue 2.1.

2. The result of these enhancements is an optimized and balanced plan to deliver system service outcomes which customers value and that are needed to serve

[1] The evidence in Exhibit 1A, Tab 3, Schedule 1, Table 2 summarizes each directive and the utility's associated response.
[2] EB-2014-0116, Decision and Order (December 29, 2015).
[3] Handbook for Utility Rate Applications (October 13, 2016).
[4] Exhibit 1B, Tab 1, Schedule 1 at pages 6-9; Exhibit 2B, Section E2.3 at pages 45-58; 1B-CCC-9.
[5] Exhibit 1B, Tab 2, Schedule 1 at pages 4-7; Exhibit 2B, Section D1.3.2.1 at page 26 and Section E2.2.1 at pages 10-11; 2B-SEC-34.

Toronto, while keeping price increases as low as possible. The plan includes a total bill impact of less than 1.1%, and a base distribution rate impact of less than 3%. This plan also includes a firm commitment to deliver customer focused performance and value-for-money objectives in safety, reliability, service, environment, public policy responsiveness, and financial performance.

3. Toronto Hydro made difficult investment choices and trade-offs to achieve this result, including the reduction of capital and OM&A expenditures by more than $400 million[6] and approximately $25 million[7] respectively. It made these decisions using improved customer engagement, analytical tools and processes to assess system requirements and manage system risks, and benchmarking analysis to evaluate costs and performance and drive continuous improvement.

Toronto Hydro developed a plan that is informed by customer needs and preferences and delivers customer-focused outcomes.

4. Toronto Hydro developed a plan that is deeply informed by customer needs and preferences, and delivers customer-focused outcomes. This enhancement was responsive to the OEB's feedback in the last decision "*that the achievement of RRFE outcomes relies on an ongoing effort by the distributor to engage customers in a process designed to inform its plans*."[8]

5. Toronto Hydro engaged its customers in a robust and enhanced process. First, the utility heard from customers about their priorities, needs, and preferences before developing its plan (Phase 1). Then, Toronto Hydro developed a plan that was responsive to what it heard from customers. It achieved this in part by taking active steps to ensure that customer feedback was incorporated into its planning processes. Next, the utility took its plan to customers to validate that it accurately incorporated their feedback from Phase 1, and received detailed feedback from customers on the plan itself (Phase 2). Toronto Hydro then made further refinements to its plan based on that feedback it received from customers.[9]

6. Toronto Hydro leveraged the customer feedback from Phase 1 to develop an outcomes framework that reflects the value priorities identified by customers: safety, reliability, customer service, environment, public policy responsiveness and financial performance.[10] This framework became the customer-focused lens

[6] 2B-Staff-73; OH Volume 4 (July 4, 2019) at page 132, lines 23-27.
[7] OH Volume 8 (July 11, 2019) at page 62, lines 1-8; please also refer to Issue 5.1.
[8] EB-2014-0116, Decision and Order (December 29, 2015) at page 8.
[9] 1B-CCC-9; Evidence Overview Presentation Transcript (May 3, 2019) at page 6, line 28 and page 7, lines 1-8.
[10] Exhibit 1B, Tab 2, Schedule 1 at page 4, lines 13-18.

through which the company set detailed planning objectives,[11] developed bottom-up expenditure proposals,[12] and made trade-offs and pacing investment decisions.[13]

7. The utility cascaded the Phase 1 customer engagement results to the company in an easily accessible "placemat"[14] and incorporated them throughout the planning process.[15] It also set top-down strategic direction to limit rate and budget levels, [16] and developed an outcomes framework linked to its plans and with associated performance metrics.[17] These steps assisted business leaders and experts in making critical investment choices and trade-offs, such as reducing the initial capital and operational expenditure plans by more than $400 million and approximately $25 million respectively to strike an optimal balance between costs and outcomes.[18]

8. Additionally, as part of Phase 2 customer engagement, Toronto Hydro presented the plan to customers along with cost benchmarking and reliability performance information.[19] Customers explored the investment decisions made in response to the Phase 1 feedback and confirmed that Toronto Hydro got the balance right.[20] Customers weighed in on genuine program-level trade-offs focused on the pacing of major system renewal programs and opportunities for innovation.[21] Although at this stage a majority of customers across all rate classes supported the proposed plan,[22] Toronto Hydro nevertheless incorporated the customer input from Phase 2 to make final changes to its plan that further aligned the plan with customers' feedback.[23]

1.2 Is the proposed effective date of January 1, 2020 appropriate?

Toronto Hydro's proposed effective date of January 1, 2020 is appropriate and should be approved.

9. Toronto Hydro made reasonable efforts to assess the time needed to process its application with regard to the nature of Toronto Hydro's application and the

[11] For example, the asset management objective to maintain asset condition demographics in HI4 and HI5 in order to keep prices as low as possible without compromising service quality (U-EP-64 at page 5, lines 8-12).
[12] 1B-SEC-5 at page 2; Exhibit 2B, Section E2.1.2 at page 5, lines 7-15; Exhibit 4A, Tab 2, Schedule 1 at page 3, lines 2-9.
[13] 2B-Staf-73 at pages 3-11.
[14] Exhibit 1B, Tab 3, Schedule 1, Appendix A, Appendix 1.6.
[15] Evidence Overview Presentation Transcript (May 3, 2019) at page 6, line 28 and page 7, lines 1- 8.
[16] Exhibit 2B, Section E2.1.1 at pages 2-3; 1B-CCC-9 at pages 1-2; 1B-SEC-5.
[17] Exhibit 1B, Tab 2, Schedule 1 at pages 4-6; Exhibit 2B, Section E2.3.1 at pages 46, lines 4-15; 1B-CCC-9 at page 1.
[18] 2B-Staff-73; OH Volume 4 (July 4, 2019) at page 132, lines 23-27.
[19] Exhibit 1B, Tab 3, Schedule 1 at page 7, lines 7-16 and Appendix A, Appendix 3.1 at pages 19-20; Exhibit 2B, Section E2.3.3 at page 56.
[20] Exhibit 1B, Tab 3, Schedule 1, Appendix A at page 3.
[21] Exhibit 2B, Section E2.3.2.3 at pages 57-58.
[22] Exhibit 1B, Tab 1, Schedule 1 at page 29, lines 9-10; Tab 3, Schedule 1, Appendix A; Tab 3, Schedule 3; Tab 3, Schedule 5 at page 3, lines 9-11; EB-2018-0165, Oral Hearing Transcript Day 7 (July 9, 2019) at page 51, lines 6-13.
[23] Exhibit 2B, Section E2.3.2.3 at page 58; 2B-Staff-73.

experience of previous applications filed by various utilities. Toronto Hydro's assessment concluded that filing the application 16 months before the requested effective date would provide the OEB sufficient time to review and adjudicate the application. The estimate accords to the latest OEB performance standards for processing rate applications that took effect on April 1, 2019.[24]

1.3 Are the rates and bill impacts resulting from Toronto Hydro's application appropriate?

The proposed rates and bill impacts resulting from Toronto Hydro's plan and application are appropriate and should be approved by the OEB.

10. Toronto Hydro's plan results in an average annual increase of 3.0% to base distribution rates for a typical residential customer using 750 kWh. When rate riders are included, the total bill impact is 1.1%, which is below the inflation rate. Actual rate impacts will be even lower than this once the revenue requirement updates identified in response to undertaking J1.2 are factored in. Toronto Hydro's response to undertaking J4.6, Appendix A summarizes the rates and bill impacts for all rate classes. However, please note that Appendix A does not include the revenue requirement updates identified in the response to undertaking J1.2.

11. As discussed in Issue 1.1 above, this plan was built on the basis of customer feedback, which included through planning consideration of rate impacts and the outcomes that customers value.[25] With regard to this feedback, Toronto Hydro produced an optimized plan that enables the utility to fund critical capital investments and operational expenses required to operate the system safely and efficiently, while keeping prices as low as possible.

12. As discussed in Issues 3.2 and 5.1, the proposed rates provide Toronto Hydro the minimum level of funding that it requires to maintain safety, reliability and customer service outcomes, continue to operate safe and efficiently, and comply with its legal and regulatory requirements. Toronto Hydro submits that the rates are reasonable and should be approved.

13. As discussed in Issue 8, the proposed rate riders reflect the clearance of balances in the Group 1 and Group 2 deferral and variance accounts. These balances and the corresponding rate riders are appropriately calculated and should be approved.

[24] OEB Performance Standards for Processing Applications (March 11, 2019) at page 2.
[25] Exhibit 1B, Tab 2, Schedule 1; Exhibit 2B and Exhibit 4A, Tab 1, Schedule 1.

2.0 CUSTOM INCENTIVE RATE-SETTING

2.1 Are all elements of Toronto Hydro's Custom Incentive Rate-setting proposal for the determination of rates appropriate?

All elements of Toronto Hydro's Custom Incentive Rate-setting ("CIR") proposal for the determination of rates are appropriate.

14. The OEB should approve the proposed CIR framework because: (i) it is the only rate framework that is appropriate for Toronto Hydro's needs and circumstances; and (ii) it meets the OEB's standards for a CIR application.

15. Toronto Hydro needs a significant level of multi-year capital funding to continue to invest in its aged, deteriorated and highly-utilized distribution system, provide safe and reliable service to its customers, perform its operations effectively, and comply with legal and regulatory requirements.[26]

16. Customers' feedback was that they expect Toronto Hydro to maintain the current level of service and make targeted improvements in areas experiencing below average service.[27] Planned multi-year capital investments is the only way to meet these expectations and related outcomes, and continue to address critical system needs and legal obligations.

17. Toronto Hydro's proposed level of funding is necessary to continue the utility's asset renewal program, and maintain its performance in accordance with customer expectations and good utility practice.[28] Any reduction will compromise Toronto Hydro's ability to make the required investments and continue to deliver the current level of service and performance that the city needs and that customers expect going forward.[29]

18. Toronto Hydro's funding requirements significantly exceed the level of capital funding that would be available under the OEB's standard incentive rate-setting mechanism ("IRM") framework.[30] The OEB developed different rate-setting options to ensure that each distributor has sufficient flexibility to "select the rate-setting

[26] Please refer to Issue 3.2 for more information about Toronto Hydro's significant multi-year capital expenditure needs.
[27] Exhibit 1B, Tab 3, Schedule 1 at page 4, lines 1-9 and page 6, lines 1-4; Exhibit 1B, Tab 3, Schedule 1, Appendix A at pages 3, 5-6, and 13; OH Volume 1 (June 27, 2019) at page 102, lines 8-15; Evidence Overview Presentation Transcript (May 3, 2019) at page 38, line 28 and page 39, lines 1-9.
[28] Exhibit 4A, Tab 1, Schedule 1 at page 3, lines 2-19 and page 4, lines 1-21.
[29] Exhibit 1B, Tab 3, Schedule 1, Appendix A; OH Volume 8 (July 11, 2019) at page 62, lines 1-8.
[30] Exhibit K6.4 – Board Staff Compendium for Panel 3 at page 55; OH Volume 7 (July 9, 2019) at page 80, lines 16-25.

method that best meets its needs and circumstances."[31] The CIR option was created specifically to accommodate the "differing circumstances of distributors" like Toronto Hydro that have "significantly large multi-year" capital investment needs.[32]

Given the persistence of the utility's significant multi-year capital needs, CIR continues to be the only appropriate rate-setting option for Toronto Hydro.

19. The OEB's description of when CIR is appropriate describes Toronto Hydro's circumstances. As the RRF Report states, CIR is "most appropriate for distributors with significantly large multi-year or highly variable investment commitments that exceed historical levels."[33]

20. Only with significant multi-year capital investment can Toronto Hydro can meet its legal obligations, avoid degradation in service and grid performance, and deliver on the outcomes that provide value to customers and advance the objectives of the RRF: customer focus, operational effectiveness, public policy responsiveness, and financial performance.[34] CIR is also the most efficient framework for setting rates to meet Toronto Hydro's needs over the 2020-2024 period because it is governed by a comprehensive regulatory process to set rates for a minimum five year term.[35]

21. CIR is the only appropriate rate-setting option for Toronto Hydro's circumstances during the plan period.[36] To execute its work effectively and efficiently, Toronto Hydro requires:[37] funding certainty and predictability; a long planning horizon to coordinate work in advance of execution; and operational flexibility to manage the timing and mix of work in light of the operating conditions and challenges that the utility faces on the ground.[38] CIR provides all of these features in an established form.

22. The proposed framework is consistent with the framework previously approved by the OEB in Toronto Hydro's 2015 to 2019 application to address the same needs and circumstances that Toronto Hydro currently faces. This plan continues the utility's efforts to renew a significant backlog of deteriorated and obsolete assets at

[31] Report of the Board, Renewed Regulatory Framework for Electricity Distributors: A Performance-Based Approach (October 18, 2012) *[RRF Report]* at page 9.
[32] Ibid at pages 8, 14 and 18.
[33] Ibid at page 18.
[34] Toronto Hydro's 2020-2024 Distribution System Plan ("DSP") filed in Exhibit 2B establishes the need for a significant five-year capital commitment to achieve the RRF outcomes. Please refer to Issue 3.2 in this Argument in Chief for more information.
[35] Report of the Board, Renewed Regulatory Framework for Electricity Distributors: A Performance-Based Approach (October 18, 2012) *[RRF Report]* at page 19.
[36] EB-2014-0116, Decision and Order (December 29, 2015) at page 4.
[37] OH Volume 6 (July 8, 2019) at pages 129-131 and at page 133, lines 20-24.
[38] OH Volume 2 (June 28, 2019) at page 11, lines 20-25; OH Volume 6 (July 8, 2019) at page 131, lines 3-5.

risk of failure, and to adapt to the continuously evolving challenge of serving and operating within a dense, mature, and growing major city. Over 90% of the work in the 2020-2024 plan is a continuation of the same work that drove the need and approval of the CIR framework in the previous application.[39]

23. The 2015 to 2019 experience demonstrates that the CIR framework provides measurable benefits to customers, while protecting the interests of consumers and the financial viability of the utility. Under this framework during the 2015-2019 period, Toronto Hydro:[40]

- Delivered its capital program within 1% of approved in-service additions;[41]
- Met or exceeded performance on 16 of the 17 OEB service quality metrics;[42]
- Fulfilled its regulatory obligations to connect customers in a timely manner;[43]
- Complied with numerous public policy and regulatory directives;[44]
- Delivered measurable performance improvements in key areas of its operations like reliability and safety;[45]
- Did not over- or under-earn on its return on equity;[46]
- Protected customers from capital-related funding differences;[47] and
- Achieved continuous improvement in efficiency and productivity.[48]

24. CIR continues to be the only appropriate rate-setting framework given the utility's significant multi-year investment needs and distinct circumstances of serving a mature, congested urban city experiencing substantial growth and densification.

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[39] 2A-AMPCO-15; 2A-AMPCO-16.
[40] OH Volume 6 (July 8, 2019) page 127, lines 1-28 to page 129, lines 1-11.
[41] Exhibit U, Tab 1A, Schedule 1 at page 3, lines 4-6; OH Volume 1 (June 27, 2019) at page 96, lines 11-16.
[42] 1B-CCC-15; Evidence Overview Presentation Transcript (May 3, 2019) at page 8, lines 16-17.
[43] Exhibit 2B, Section E2.2.3.1 at pages 17-20; Section E5.1.
[44] Exhibit 4A, Tab 2, Schedule 14 at page 5, lines 13-22; and Schedule 17 at page 4.
[45] 1B-CCC-15 and J3.2 at Table 2.
[46] 1B-Staff-25; Exhibit U, Tab 1B, Schedule 1 at page 38; 1B-CCC-22; OH Volume 7 (July 9, 2019) at page 159, lines 10-25 and page 161, lines 21-27; J7.7 at page 2, lines 1-5 and Table 1.
[47] Exhibit 9, Tab 1, Schedule 1 pages 10-14; Exhibit U, Tab 9, Schedule 1 at page 4; OH Volume 2 (June 28, 2018) at page 5, lines 22-28; OH Volume 7 (July 9, 2019) at page 38, lines 27-28 and page 39, lines 1-9; J7.7 at page 2.
[48] J3.2; OH Volume 7 (July 9, 2019) at page 169, lines 5-28 and page 170, lines 1-14; Exhibit 1B, Tab 2, Schedule 1 at pages 8-20.

The proposed CIR framework meets the OEB's standards for a Custom IR application and was previously approved by the OEB.

25. There is no threshold test for a CIR application.[49] As confirmed by the OEB in its decision approving Toronto Hydro's 2015 to 2019 CIR application: [50]

> *The OEB does not decide whether the option chosen by the applicant is the most appropriate. The OEB decides rather whether the proposal contains features that can be relied on to achieve the RRF objectives. The Custom IR is described in the RRF as a suitable choice for distributors with large or highly variable capital requirements.*

26. In addition to being driven by large multi-year investment requirements and specific circumstances, Toronto Hydro's proposed framework meets the other OEB standards for CIR applications outlined in the RRF Report[51] and the Handbook:[52]

- Advances the RRF goals through outcomes and performance metrics;
- Is supported by robust evidence, including internal and external cost and performance benchmarking analysis;
- Features a five-year term with minimal updates and an annual rate adjustment mechanism that incents productivity and efficiency; and
- Includes customer protection mechanisms.

27. The sections that follow discuss how Toronto Hydro's application and the underlying 2020-2024 plan meets each of these standards.

The proposed CIR framework advances the objectives of the RRF through outcomes and performance metrics.

28. Toronto Hydro's proposed CIR framework sets rates to fund a comprehensive multi-year plan that delivers customer-focused outcomes and drives continuous improvement in performance, consistent with RRF objectives. As the utility expressed through the outcomes framework, the plan emphasizes results, rather

[49] Handbook for Utility Rate Applications (October 13, 2016) at page 25.
[50] EB-2014-0116, Ontario Energy Board, Decision and Order (December 29, 2015) at page 4.
[51] Report of the Board, Renewed Regulatory Framework for Electricity Distributors: A Performance-Based Approach (October 18, 2012).
[52] Handbook for Utility Rate Applications (October 13, 2016) at pages 25-28.

than activities. These results include reliability performance and service quality, which are tracked, measured, and reported through 44 distinct performance metrics on Toronto Hydro's proposed scorecard.[53]

29. Toronto Hydro's outcomes framework is a key indicator of the way in which its 2020-2024 plan has successfully brought together customers' needs and priorities, the utility's strategic corporate pillars, and the OEB's policy objectives under the RRF. It guided Toronto Hydro's business planning activities in preparing this application as the customer-focused common lens through which the utility evaluated the value proposition of its proposals and made key investment decisions.[54] This included decisions such as reducing the capital and OM&A expenditures by more than $400 million[55] and approximately $25 million[56] respectively to develop a restrained plan optimized between cost and outcomes.

30. Toronto Hydro's plan drives continuous improvement in utility performance across the RRF outcomes and delivers an appropriate value proposition to customers:

- **Customer Focus:** This plan reflects an optimized balance between costs and outcomes responsive to customers' needs and preferences determined through the two-phased customer engagement process.[57] A majority of customers across all rate classes support this plan.[58]

- **Operational Effectiveness**: This plan maintains system-wide performance and pursues targeted improvements in reliability and service quality.[59] The rate framework incents productivity,[60] and supports renewal investments in the modernization of the distribution system and operational technology that drive continuous improvement in efficiency.[61]

- **Public Policy Responsiveness**: This plan delivers on mandated legislative and regulatory obligations, [62] including important environmental objectives

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[53] Exhibit 1B, Tab 1, Schedule 1 at pages 20-23; Exhibit 1B, Tab 2, Schedule 1 at pages 6-7 1B-BOMA-8.
[54] Exhibit 1B, Tab 2, Schedule 1 at pages 4-6.
[55] 2B-Staff-73; OH Volume 4 (July 4, 2019) at page 132, lines 23-27.
[56] OH Volume 8 (July 11, 2019) at page 62, lines 1-8; Also see issue 5.1.
[57] Exhibit 1B, Tab 3, Schedule 1; Evidence Overview Presentation Transcript (May 3, 2019) at page 6 line 28 and page 7, lines 1-8.
[58] Exhibit 1B, Tab 1, Schedule 1 at page 8, lines 13-15 and page 9, lines 1-5; Exhibit 1B, Tab 3, Schedule 1, Appendix A; Evidence Overview Presentation Transcript (May 3, 2019) at page 39, lines 9-12.
[59] Evidence Overview Presentation Transcript (May 3, 2019) at page 38, lines 23-28 and page 39, lines 1-9; OH Volume 1 (June 27, 2019) at page 102, lines 8-15.
[60] Exhibit 1B, Tab 4, Schedule 1; 1B-CCC-14 at page 1, lines 15-21.
[61] J3.2.
[62] Exhibit 2B, Section E2 at page 20.

such as reducing the risk of PCB leakage into the environment[63] and enabling the connection of renewable generation.[64]

- **Financial Performance**: By providing the funding certainty, predictability, and flexibility that Toronto Hydro requires, this plan supports the utility's financial viability and allows savings from operational effectiveness to be sustained into the future without compromising service quality.[65]

31. Toronto Hydro's evidence details the specific ways in which every capital and OM&A investment program contributes to the advancement of the six outcomes that customers value: safety, reliability, customer service, environment, public policy responsiveness and financial performance.

32. The utility has a strong track record of corporate performance with a focus on continuous improvement.[66] Leveraging its existing systems, processes and tools for performance management, Toronto Hydro is committed to delivering on the proposed outcomes if the rates supporting this plan are approved.[67]

33. Toronto Hydro holds itself accountable to achieving the proposed outcomes through the 44 performance metrics on its annual scorecard. In addition to the metrics on the OEB scorecard, Toronto Hydro proposed 15 custom metrics to measure its performance during the plan.[68] Together, these metrics will measure whether outcomes are being achieved by the plan.

34. For each custom metric proposed, Toronto Hydro set targets to improve, maintain or monitor performance over the plan relative to numeric historical baselines, where that information is available. In addition, where possible, Toronto provided specific forecasts of continuous improvement in performance over the 2020-2024 period. For example, by the end of the rate period, Toronto Hydro aims to send eBills to more than 40% of its customers.[69]

35. Toronto Hydro's proposed targets are appropriate. The targets are directly tied to the investment plan and reflect consideration of customer needs and preferences.[70]

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[63] Exhibit 2B, Section D3 at page 29, lines 10-17.
[64] Exhibit 3B, Section E3 and Section E5.1.
[65] J3.2; Exhibit 1B, Tab 2, Schedule 1 at pages 8-21; OH Volume 5 (July 5, 2019) at page 104, lines 10-22 and lines 25-28.
[66] 1B-SEC-8; Exhibit U, Tab 1B, Schedule 1 at page 38; OH Volume 7 (July 9, 2019) at page 42, lines 4-20.
[67] 2B-Staff-65 (b) at page 3, lines 7-17.
[68] Exhibit 1B, Tab 2, Schedule 1 from page 6, line 4 to page 7, line 9; Exhibit 1B, Tab 2, Schedule 1, Appendix A; Exhibit 2B, Section C2 at pages 4-26.
[69] JTC2.9 at page 1, lines 14-26 and page 2, Table 1; Exhibit 1B, Tab 1, Schedule 1; Exhibit 2B, Section C.
[70] Exhibit 1B, Tab 2, Schedule 1 at pages 4-7; Exhibit 2B, Section A4.3 at pages 20-22; Exhibit 2B, Section C.

For example, recognizing that customers are satisfied with current service levels and expect Toronto Hydro to keep prices as low as possible, the utility developed a plan and set related targets to maintain reliability in line with historical performance, and make targeted improvements in areas experiencing below average service.[71]

The proposed CIR framework is supported by robust evidence, including internal and external benchmarking analyses.

36. This application record, which is now over 13,000 pages, stands on a foundation of over 5,000 pages of detailed and robust evidence of Toronto Hydro's historical and forecast costs, revenues and performance, consistent with the OEB's expectations in the RRF.[72] The evidence includes a comprehensive infrastructure investment plan – the 2020-2024 Distribution System Plan ("DSP") – that supports Toronto Hydro's pressing need for capital investment, and explains how the investments will deliver value for customers through outcomes.[73]

37. Benchmarking is a fundamental requirement of a CIR application, and Toronto Hydro submits that its evidence demonstrably meets and exceeds the standard. Toronto Hydro filed 21 external assessments and reports, six of which are benchmarking analyses, to support the proposed plans and programs, demonstrate continuous improvement and offer the OEB an independent perspective of Toronto Hydro's needs, costs, and performance.[74] For ease of reference, the reports are summarized in Appendix A to this Argument in Chief.

38. Individually and collectively, the external benchmarking analyses illustrate Toronto Hydro's strong performance relative to its peers. This includes performance on specific measures like SAIDI in reliability benchmarking,[75] cost performance on specific elements of the utility's business (e.g. IT/OT budgets[76] and compensation and benefits[77]), total cost performance (i.e. the PSE econometric benchmarking study), as well as unit cost performance on capital construction and maintenance activities (i.e. the UMS unit cost study).[78]

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[71] Evidence Overview Presentation Transcript (May 3, 2019) at page 38, lines 23-28 and page 39, lines 1-9; OH Volume 1 (June 27, 2019) at page 102, lines 8-15.
[72] Report of the Board, Renewed Regulatory Framework for Electricity Distributors: A Performance-Based Approach (October 18, 2012).
[73] Toronto Hydro Argument-in-Chief, Issue 3.2.
[74] Please see Appendix A to this Argument in Chief.
[75] Exhibit 1B, Tab 4, Schedule 2.
[76] Exhibit 2B, Section E8.4, Appendix A.
[77] Exhibit 4A, Tab 4, Schedule 5.
[78] Exhibit 1B, Tab 2, Schedule 1, Appendix B.

39. In addition, the external benchmarking reports demonstrate that Toronto Hydro has adopted industry best practices and is an industry leader on key areas such as asset management[79] and standards.[80] As these areas underpin Toronto Hydro's capital plan, the external reviews provide the OEB an important perspective for evaluating the appropriateness of the utility's capital investment needs and proposals.

40. Equally important, the application includes a wide-range of internal benchmarking in the form of historical results (i.e. 2013-2018) for over 40 scorecard performance measures,[81] additional productivity and efficiency measures,[82] and program-specific performance results.[83] Across most of the areas, the analyses demonstrate Toronto Hydro's consistent performance at or above industry standards (e.g. OEB targets), and continuous improvement in productivity and performance over time.

The proposed CIR framework features a five year term with minimal updates and an annual rate adjustment mechanism that incents productivity.

41. Given that the adjudication of a CIR application requires the expenditure of significant resources by both the OEB and the utility, the OEB expects CIR applicants to commit to a minimum term of five years and to manage within the rates set for that term with minimal updates.[84] Toronto Hydro's proposed CIR framework complies with this standard: it sets distribution rates for the 2020-2024 period with minimal updates proposed for the annual rate order process.[85]

42. The OEB also expects an annual rate adjustment mechanism based on a custom price index supported by empirical evidence.[86] The index must include financial incentives for continuous improvement and cost control.[87] Toronto Hydro's proposed Custom Price Cap Index ("CPCI") also meets this standard.

43. Building off the OEB's price cap index ("PCI") approach, the CPCI includes custom features (i.e. the C-Factor and the custom stretch factor value) necessary to address

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[79] Exhibit 2B, Section D, Appendix A; OH Volume 8 (July 11, 2019) at page 194, lines 13-16.
[80] Exhibit 2B, Section D, Appendix B.
[81] Exhibit 1B, Tab 1, Schedule 1 at page 21, Table 2; Exhibit 1B, Tab 2, Schedule 1 and Appendix A; 1B-BOMA-9 at page 2, Table 1.
[82] Exhibit 1B, Tab 2, Schedule 1 at pages 8-20; 1B-EP-2 See also generally Exhibit U, Tab 1B, Schedule 1, e.g. at pages 2, 6-7, 14, and 18-20.
[83] E.g. Exhibit 1B, Tab 2, Schedule 1 at page 17, lines 1-23 and page 19, lines 11-15; Exhibit 2B, Section E8.3 at page 3, lines 14-17; Exhibit 4A, Tab 2, Schedule 11 at page 7, lines 5-25 and page 8, lines 1-14; Exhibit 4A, Tab 2, Schedule 14 from page 5, line 24 to page 8, line 8.
[84] Handbook for Utility Rate Applications (October 13, 2016) at pages 26-27; Report of the Board, Renewed Regulatory Framework for Electricity Distributors: A Performance-Based Approach (October 18, 2012) at pages 18-20.
[85] Exhibit 1B, Tab 4, Schedule 1.
[86] Handbook for Utility Rate Applications (October 13, 2016) at pages 25-26.
[87] *Ibid*.

Toronto Hydro's specific needs and circumstances: the need for significant multi-year capital investment and the circumstances of serving a dense, mature, and growing urban city.[88] The custom elements of Toronto Hydro's CPCI are as follows:

- The C-factor reconciles Toronto Hydro's significant multi-year capital investment needs within the OEB's PCI framework by applying a rate adjustment proportional to the degree of capital investment required.

- The custom stretch factor value reflects Toronto Hydro's circumstances of serving a large, dense, and mature urban environment.[89] The proposed value of 0.3 is supported by empirical evidence (i.e. PSE's econometric benchmarking) which includes an urban cost variable that captures the cost drivers and challenges of serving the City of Toronto.[90]

44. Despite custom elements, the CPCI is rooted in PCI ratemaking principles. Through the adoption of the OEB's inflation and productivity factors, the CPCI controls rate increases during the plan period and financially incents continuous improvement and cost control.[91] It provides customers with a guaranteed, up-front share in productivity generated by Toronto Hydro, and drives the utility to pursue efficiencies and cost control to achieve the expected productivity, while continuing to deliver on the proposed outcomes. These benefits are in addition to the efficiencies and productivity achieved by Toronto Hydro in prior rate periods, which continue to accrue to customers during this plan period.[92]

45. The CPCI is a continuation of the rate adjustment mechanism approved by the OEB in Toronto Hydro's previous CIR application.[93] As it did over the 2015 to 2019 period, Toronto Hydro plans to manage within the rates set for the 2020-2024 rate period with minimal updates during the annual rate order process. These include

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[88] Exhibit 1B, Tab 4, Schedule 1 at page 1, lines 1-24 and page 2, lines 1-15; Exhibit 2B, Section A4.1 at pages 9-18.
[89] Exhibit 1B, Tab 4, Schedule 2. The PSE Study found that Toronto Hydro's forecasts of its total costs are within 10 percent of its predicted total costs. Using the OEB's Stretch Factor demarcation point, the PSE benchmarking results place Toronto Hydro in Group III, corresponding to a 0.3 percent stretch factor.
[90] Exhibit 1B, Tab 4, Schedule 2 at pages 30-33; OH Volume 7 (July 9, 2019) at page 143, lines 19-27, page 147, lines 20-28, and page 148, lines 1-3.
[91] Exhibit 1B, Tab 4, Schedule 1 from page 1, line 1 to page 4, line 15; 1B-CCC-14 at page 1, lines 15-27 and page 2, lines 1-18.
[92] Exhibit 1B, Tab 2, Schedule 1 at pages 8-21; 1B-CCC-14; OH Volume 5 (July 5, 2019) at page 104, lines 10-22 and lines 25-28; J3.2; OH Volume 7 (July 9, 2019) at page 169, lines 5-28 and page 170, lines 1-14.
[93] The proposed CPCI includes modifications required by the OEB in the 2015 CIR Decision. See Exhibit 1B, Tab 4, Schedule 1 at page 1, lines 13-24 and page 2, lines 1-15; OH Volume 6 (July 8, 2019) from page 64, line 24 to page 66, line 27 and from page 128, line 28 to page 129, line 4.

updating the inflation factor and clearance of Group 1 accounts, consistent with OEB policy as noted in the Handbook.[94]

The proposed CIR framework protects customers' interests.

46. Toronto Hydro's proposed CIR framework protects customers' interests during the rate period. As noted above, it provides customers upfront productivity benefits through the CPCI. This has the effect of reducing rates and placing the burden on the utility to achieve the expected productivity during the rate period, while maintaining its commitment to deliver the customer-focused outcomes of the plan.

47. The Earnings Sharing Mechanism ("ESM")[95] protects customers in the event that Toronto Hydro achieves more than the expected productivity. The ESM works in tandem with the Capital Related Revenue Requirement Variance Account ("CRRRVA")[96] to protect rate payers from utility overearnings. The OEB established these accounts in the last CIR application as customer protection mechanisms,[97] and Toronto Hydro proposes to continue them in the current application.

48. Price certainty is another important customer protection element in the proposed CIR framework. Base rates are set for five years, and the utility must manage within those rates with very limited opportunity to receive additional funding. This key feature of the proposed framework insulates customers from the externally-driven cost pressures that the utility will continue to face in its day-to-day operations over the term of the plan. The utility bears the responsibility to absorb these cost pressures by finding productivity and efficiency, and customers receive the benefit of comparatively lower rates and price certainty protection. These externally-driven cost pressures include public policy and legislative changes, and technological advancements that drive the need for increased investment in compliance and cyber security. Inflation, insurance premiums, property taxes, exchange rates, and postage costs also generally increase the cost of service over time. [98]

49. Finally, Toronto Hydro's CIR framework protects customers through its commitment to delivering the proposed outcomes. This commitment holds the Toronto Hydro accountable to use the funding received through rates to achieve results that deliver value to customers in accordance with their needs and preferences.

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[94] Handbook for Utility Rate Applications (October 13, 2016) at page 25.
[95] Exhibit U, Tab 9, Schedule 1 at page 14, Table 18 shows the 2015-2018 ESM calculations.
[96] Exhibit 9, Tab 1, Schedule 1 at pages 10 to 14 includes evidence about the 2015-2019 CRRRVA.
[97] EB-2014-0114, Ontario Energy Board, Decision and Order (December 29, 2015) at pages 48-49 and 52-53.
[98] 3-AMPCO-68(a) from page 1, line 14 to page 3, line 19. The cost pressures are also discussed in Issue 5.1.

2.2 Is Toronto Hydro's proposed custom scorecard appropriate?

50. Toronto Hydro's proposed scorecard is appropriate and consistent with OEB guidance. It effectively tracks Toronto Hydro's performance against the outcomes of its plan, through effective and transparent utility reporting that holds the utility accountable to measurable performance of its plan.[99]

51. The benchmarking data shows that Toronto Hydro is a strong performer coming out of the last plan period (i.e. 2015 to 2019), that the utility met or exceeded the OEB's targets on 16 of the 17 measures that have targets and are reported in the Electricity Distributor Scorecard ("EDS") and the Electricity Service Quality Requirements ("ESQR"),[100] and that the utility has demonstrated continuous improvement on wide-range of other metrics (e.g. 68 percent decrease in total recordable injury frequency ("TRIF") between 2011 and 2016).[101] Toronto Hydro's objectives during 2020 to 2024 include staying the course with respect to its strong performance on outcomes that matter to customers, and making targeted improvements in performance, where possible and necessary.[102]

52. Toronto Hydro's six outcomes are informed by and aligned with customer feedback, Toronto Hydro's corporate objectives, and the RRF outcomes. All outcomes are linked to quantifiable metrics, which will be used to measure and report on how well Toronto Hydro's plan is meeting its objectives. The utility's proposed scorecard includes 44 distinct metrics including 15 custom metrics to measure and monitor performance.[103] Although each measure belongs to a specific outcome category, the measures contribute to performance on multiple outcomes. For example, while the TRIF measure appears in the Safety outcome, it also produces financial benefits by way of avoided costs (e.g. decrease in Workplace Safety Insurance Board premiums) resulting from the utility's strong safety record.[104]

53. Toronto Hydro is committed to performance targets that demonstrate how it will maintain and improve performance over the plan term. These are supported by historical and forecast performance data and analysis, where available. Toronto

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[99] Handbook for Utility Rate Applications (October 13, 2016) at pages 16-17.
[100] EB-2018-0165, Distribution Rates Application Overview at page 4; Evidence Overview Presentation Transcript (May 3, 2019) at page 8, lines 10-21); Handbook for Utility Rate Applications (October 13, 2016) at pages 9 and 15-17.
[101] Exhibit 1B, Tab 2, Schedule 1 at page 9.
[102] OH Volume 1 (June 27, 2019) at page 102, lines 8-15; Evidence Overview Presentation Transcript (May 3, 2019) at page 38, line 28 and page 39, lines 1-9.
[103] Exhibit 1B, Tab 2, Schedule 1, Appendix A. The scorecard features 15 custom measures and 29 OEB measures identified on the Electricity Distributor Scorecard (EDS) and the Electricity Service Quality Requirements (ESQRs).
[104] Exhibit 1B, Tab 2, Schedule 1 at page 9, Figure 2 and lines 13-16, page 10, lines 1-2, page 11, lines 13-23, and page 12, lines 1-9.

Hydro also provided detailed linkages, where possible, between its specific proposals and the outcomes framework and metrics, such as program-level evidence explaining how the utility's investments contribute to the achievement of performance on certain measures. For example, the evidence for the Customer Connections capital program[105] and the Customer-Driven Work operations program[106] describes how the work undertaken in these programs enables Toronto Hydro's performance on the customer service outcome measure of connecting new residential or small business customers on time.

54. Through its proposed plan, Toronto Hydro plans to continue to meet or exceed the OEB standards on the EDS measures, along with its performance objectives on the other measures.[107] The scorecard tracks Toronto Hydro's commitment to delivering the proposed outcomes, and through annual reporting holds the utility accountable on that basis to the OEB and its customers.

[105] Exhibit 2B, Section E5.1 at page 2, Table 2, page 3, lines 4-14, pages 6-7, page 21, lines 3-21, page 22 at lines 21-29, and page 23, lines 1-18; 2B-BOMA-77.
[106] Exhibit 4A, Tab 2, Schedule 8 at page 2, Table 2, page 6, lines 14-24, page 7, lines 1-8, and pages 8-12.
[107] Exhibit 1B, Tab 2, Schedule 2 at page 4, lines 18-21. See generally Exhibit 1B, Tab 2, Schedule 2 at pages 4-23.

3.0 RATE BASE AND CAPITAL PLAN

3.1 Are the proposed 2020-2024 rate base amounts (including the working capital allowance amounts) reasonable?

Toronto Hydro's 2020-2024 rate base amounts are reasonable and appropriate.

55. Toronto Hydro submits that its 2020-2024 rate base amounts have been correctly calculated, are reasonable based on the Distribution System Plan ("DSP"), and should be used to set rates for the 2020-2024 period.

56. Toronto Hydro determines rate base using the average of the opening and closing balances for the net book value of its fixed assets – property, plant and equipment ("PP&E") – plus a working capital allowance ("WCA") that is applied as a percentage to the average net book value.[108]

57. In any given year, the PP&E closing balance includes the sum of the annual forecasted in-service additions for that year minus the accumulated depreciation.[109] The forecasted in-service additions are appropriately based on the capital expenditures plan outlined in the DSP, which is further discussed in Issue 3.2.

58. Toronto Hydro forecasts in-service additions using specific assumptions for project completion dates and asset categories where that information is available (e.g. major projects and general plant investments). If the information is not available (e.g. distribution capital), Toronto Hydro applies a historical conversion factor to the forecasted capital expenditures and Construction Work in Progress ("CWIP") balance to determine the in-service additions by program. It then allocates the in-service amounts to specific asset classes using historical assumptions.[110]

59. The 2020 forecast WCA of $222.9 million is based on the cost of power and controllable expenses.[111] The forecasted allowance rate of 6.42% reflects the results of the latest Lead/Lag Study performed by Navigant Consulting.[112] Toronto Hydro proposed an update to the WCA during the Application Update to incorporate the effect of the recently announced changes with respect to the OEB's customer service rules.[113]

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[108] Exhibit 2A, Tab 1, Schedule 1 at pages 1 to 3.
[109] U-Staff-168, Appendix A.
[110] JTC1.4.
[111] J1.7, Appendix A.
[112] Exhibit 2A, Tab 3, Schedule 2.
[113] Exhibit U, Tab 2, Schedule 1 at page 9; U-Staff-169.

60. Toronto Hydro calculates rate base using the methodology provided by the OEB in the Filing Requirements for Electricity Distribution Rate Applications (the "Filing Requirements")[114] and implicitly approved by the OEB in the utility's previous rate application.[115] For consistency and continuity, the approach to calculating rate base should be maintained in accordance with established industry requirements and with the utility's historical practice.[116]

61. The 2020 opening balance of $4,233.4 million net fixed assets reflects prudent capital additions[117] that Toronto Hydro put in-service during the 2015 to 2019 rate period through the execution of its 2015-2019 DSP. The 2020 opening balance also includes $1.4 million for the addition of assets resulting from the implementation of monthly billing, which were tracked in the Monthly Billing Deferral Account over the 2015 to 2019 period.[118]

3.2 Is the level of proposed 2020-2024 capital expenditures and capital in-service additions arising from the distribution system plan appropriate, and is the rationale for planning and pacing choices, including trade-offs between capital and operating costs, appropriate and adequately explained?

62. Toronto Hydro's proposed 2020-2024 capital expenditures and in-service additions arising from the Distribution System Plan ("DSP") are appropriate. The utility's rationale for the planning and pacing choices, including trade-offs between capital and operating costs, are appropriate and adequately explained.[119] Toronto Hydro's proposed capital investments are necessary to meet immediate pressing needs of the grid and to sustain long-term performance in alignment with customer needs and preferences.[120]

63. Toronto Hydro's DSP is the principal means by which the utility outlines its capital investment needs, will perform its fundamental purpose, and achieve customer-focused outcomes during the 2020 to 2024 period and beyond. This includes:

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[114] Filing Requirements for Electricity Distribution Rate Applications, Chapter 2 (July 12, 2018) at page 15.
[115] EB-2014-0116, Decision and Order (December 29, 2015) at pages 29-32.
[116] 2A-Staff-52; JTC1.1.
[117] U-Staff-168, Table 3.
[118] Exhibit 2A, Tab 1, Schedule 1 at page 1, lines 18-22 and page 10, lines 4-7; Exhibit 9, Tab 1, Schedule 1, Section 4.8 at page 20-31.
[119] Capital expenditures that drive the forecasted in-service additions in a given year are described in more detail in issue 3.1.
[120] Exhibit 2B, Section E2.3; Evidence Overview Presentation Transcript (May 3, 2019) at page 37, lines 6-11; OH Volume 4 (July 4, 2019) at page 132, lines 12-27.

- meeting the utility's service obligations and legal requirements;[121]
- maintaining average system reliability and customer service performance;[122]
- targeting improvements for customers experiencing below average service;[123]
- sustainably managing long-term asset risk as stewards responsible for multi-generational performance and cost;[124] and
- mitigating safety and environmental risks.[125]

64. To do this, Toronto Hydro must make the proposed significant, yet restrained, multi-year capital investments. Toronto Hydro's proposal is carefully paced and optimized in order to: (i) achieve these results; and (ii) keep rate increases as low as possible.[126]

65. Toronto Hydro's need for multi-year capital investment remains significant, and that need is at the core of its DSP.[127] Customers agree that these needs are real and it is important to them that they be addressed.[128] To ensure that system and operational performance is maintained now and in the future, the utility must continue to:

- Take proactive steps to address risks arising from aging, deteriorating, obsolete, and failing equipment across the system.[129]
- Make investments in adaptive infrastructure that readies the grid for the increasing frequency of severe adverse weather conditions.[130]

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[121] Exhibit 2B, Section E5 and Section E6.2, E6.3, and E6.5; Section E8.4; Exhibit 2B, Section D3 at page 29.
[122] Exhibit 2B, Section E5-E8.
[123] Exhibit 2B, Section E5.2, E6.1, E6.2; E6.3; E6.4; E6.5; E6.7; E7.
[124] Exhibit 2B, Section D1.2.1.1 at page 10, lines 9-11
[125] E.g. paper- and asbestos-insulated lead covered cables in Toronto Hydro's downtown underground system. Please see Exhibit 2B, Section D2.2.2.1 at page 27; Exhibit 2B, Section D3 at pages 27-28
[126] Exhibit 2B, Section A1 at page 1, lines 22-27; OH Volume 6 (July 8, 2019) at page 111, lines 4-7.
[127] Exhibit 2B, Section A1 at page 1, lines 14-21; OH volume 4 (July 4, 2019) at pages 131-132.
[128] Exhibit 1B, Tab 1, Schedule 1 at page 8, lines 13-15 and page 9, lines 1-5; Exhibit 1B, Tab 3, Schedule 1, Appendix A; Evidence Overview Presentation Transcript (May 3, 2019) at page 39, lines 9-12.
[129] Exhibit 2B, Section A4.1.1 at pages 10-11.
[130] Exhibit 2B, Section A4.1.2 at pages 11-14; Exhibit 2B, Section D2.1.2 at pages 5-9

- Address the complexities of technological advancements in the sector,[131] including related threats to cyber security.[132]

- Keep pace with a growing city, and make investments to address the continuously evolving challenge of serving and operating within the country's most dense and mature major city. [133]

66. The robust evidence of Toronto Hydro's DSP demonstrates the capital needs on system-wide, program-level, and asset-specific bases.[134] It includes rigorous justification of proposed expenditures for the 2020-2024 period, which are grounded in thorough analysis of historical expenditures[135] and performance.[136] The information and rationale in support of Toronto Hydro's investment plan is provided in detail at both an aggregate and granular level throughout thousands of pages of evidence on this record.

67. Toronto Hydro has full confidence in its 2020-2024 plan. This confidence is in large part due to the robust capabilities (and in certain aspects, industry-leading features) of its asset management tools and practices,[137] which the utility used to develop an optimized DSP that links investment needs to the outcomes that the plan is designed to achieve.[138] This includes an enhanced Asset Condition Assessment ("ACA") methodology that significantly strengthens the relationship between asset condition, predicted failure risk, and the five-year system investment plan in this DSP.[139]

68. Toronto Hydro successfully implemented a number of important enhancements to its asset management processes that strengthened the capital planning effort that resulted in the 2020-2024 DSP.[140] The utility also engaged UMS Group ("UMS") to perform an independent review of the asset management practices. Through the lenses of ISO 550001 and UMS's own Strategic Asset Management Framework, UMS

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[131] Exhibit 1B, Tab 1, Schedule 1 at pages 17-19.
[132] Exhibit 2B, Section A4 at page 17, lines 5-11 and Section A4 at page 16, lines 3-8; Exhibit 2B, Section E8.1, Section E8.2 and Section E8.4; 3-AMPCO-38 at page 2, lines 12-17.
[133] Evidence Overview Presentation Transcript (May 3, 2019) at page 20, lines 19-28 and page 21, line 1; Exhibit 2B, Section D2.1 at pages 1-10.
[134] Exhibit 2B, Sections E5-E8.
[135] Exhibit 2B, Sections E5-E8 "Expenditure Plan"; Exhibit U, Tab 2, Schedule 2.
[136] Exhibit 2B, Sections E5-E8 "Outcomes and Measures".
[137] Exhibit 2B, Section A5 pages 28-32; Exhibit 2B, Section D1-D5 and Section D, Appendix A; Exhibit 2B, Section E2; OH Volume 8 (July 11, 2019) at page 194, line 13-15.
[138] Exhibit 2B, Sections E5-E8, Table 2 of each program summarizes the outcomes and measures addressed by those investments. Exhibit 2B, Section C; Exhibit 2B, Section D1.1 at pages 3-5; Exhibit 2B, Section E2.2.1 at pages 10-11.
[139] Exhibit 2B, Section D, Appendix C; OH Volume 1 (June 27, 2019) at page 62, lines 15-24; OH Volume 4 (July 4, 2019) at page 136, lines 19-24.
[140] Exhibit 2B, Section D1.3.1 and Section D1.3.2.

concluded that, across the domains assessed, Toronto Hydro "exceeds the North American average level of maturity in all areas, reaching into "Best Practice" for some."[141] UMS stated during expert testimony that Toronto Hydro has "good business intelligence tools"[142] and "tools that are more mature than the typical North American utility would have for modeling".[143]

69. Toronto Hydro's 2020-2024 DSP is a customer focused plan. It is the product of robust business planning in which the utility integrated customers' needs and preferences from start to finish.[144] The utility's customer engagement consultant summarized these needs and preferences with the following key points:[145]

- keep distribution price increases as low as possible;
- maintain long-term performance for customers experiencing average or better service;
- improve service levels for customers experiencing below average service or who have special reliability needs (e.g. hospitals); and
- balance other customer priorities (e.g. customer service) with the need to contain rate increases.

70. Toronto Hydro's investment plan is fully aligned with these customer priorities.[146] Specifically, this is a restrained plan that represents the minimum level of investment necessary to maintain average reliability and customer service performance and deliver targeted improvements for customers experiencing below average service.[147] Customers in all rate classes support this plan.[148]

71. The utility achieved a minimum level of investment through a disciplined planning process, guided by top-down strategic parameters informed by the customer priorities noted above. These parameters emphasized price containment and

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[141] Exhibit 2B, Section D, Appendix A.
[142] OH Volume 8 (July 11, 2019) at page 194, line 16.
[143] *Ibid.* lines 13-15.
[144] Exhibit 2B, Section E2 at page 45; Evidence Overview Presentation Transcript (May 3, 2019) at page 6, line 28 and page 7, lines 1-8.
[145] 1B-BOMA-39; Exhibit 1B, Tab 3, Schedule 1, Appendix A; Exhibit 2B, Section A1 at page 1, lines 22-25.
[146] Exhibit 1B, Tab 3, Schedule 1, Appendix A; Exhibit 2B, Section A1 at page 1, lines 22-25.
[147] Exhibit 2B, Section A1 at page 1, lines 22-27; Exhibit 2B, Section E2.3.1 at pages 46-47; Evidence Overview Presentation Transcript (May 3, 2019) at pages 6-8, 37; OH Volume 3 (July 3, 2019) at pages 73-77.
[148] Exhibit 1B, Tab 1, Schedule 1 at page 29, lines 9-10; Tab 3, Schedule 1, Appendix A; Tab 3, Schedule 3; Tab 3, Schedule 5 at page 3, lines 9-11; OH Volume 7 (July 9, 2019) at page 51, lines 6-13.

directed the business to focus on impacts and outcomes that matter to customers.[149]

72. Toronto Hydro aggressively reduced expenditures in the DSP relative to what the utility's experts determined would be more optimal investment strategies.[150] Between the initial and final plans, Toronto Hydro reduced its total capital expenditure plan by more than $400 million, which included over $250 million in deferred investments from System Renewal programs.[151]

73. The deferred work is necessary and must be undertaken in the future.[152] By deferring this work, there is an increased likelihood that Toronto Hydro will need to carry-out a portion of it reactively, resulting in additional costs and negative impacts to customers that could otherwise be avoided with a greater level of proactive investment in the 2020-2024 period.[153]

74. The DSP was developed and is put forward justifying each investment category independently. However, the DSP is an integrated plan. Investments across programs and categories often have a complementary or supportive relationship with each other. For example, investments in Stations Expansions, which is a System Service program, provide needed capacity in growing areas of the city to connect new customers through the Customer Connections program in System Access.[154]

75. Toronto Hydro's performance in executing its 2015-2019 DSP demonstrates its ability to deliver an efficient plan within forecasts over a five-year period, including:

- The utility's five-year in-service additions are forecast to be within 1% of approved amounts for 2015-2019.[155]
- The utility improved its performance in a number of key areas, ranging from how frequently and how long its customers experience outages, to answering customer calls and resolving their issues. On the OEB scorecard

[149] Exhibit 1B, Tab 1, Schedule 1 at pages 6-7; OH Volume 1 (June 27, 2019) at page 47, lines 10-28 and page 48, lines 1-5.
[150] OH Volume 4 (July 4, 2019) at page 132, lines 12-28.
[151] 2B-Staff-73; OH Volume 4 (July 4, 2019) at page 132, lines 23-27.
[152] Evidence Overview Presentation Transcript (May 3, 2019) at page 7, lines 25-28 and page 8, line 1.
[153] Exhibit 1B, Tab 1, Schedule 1 at pages 28-29; OH Volume 3 (July 3, 2019) at pages 73-77.
[154] Exhibit 2B, Section E7.4 at page 1, lines 7-10.
[155] Exhibit U, Tab 1A, Schedule 2 at page 3, lines 4-6; Exhibit U, Tab 2, Schedule 1 at page 2, lines 8-11 and Appendix A; OH Volume 1 (June 27, 2019) at page 96, lines 11-13.

and service quality metrics, the utility is at or above target on 16 out of 17 metrics.[156]

- The utility was identified by UMS as being an above-average cost performer on unit costs "operating from a position of strength with respect to Unit Costs". The utility resides in the second quartile for 10 out of 11 cost categories compared to 17 peer utilities.[157]

- The utility achieved numerous capital-related productivity initiatives generating millions of dollars of savings for the benefit of customers, including fleet rationalization, wrench time improvements, facilities consolidation and optimization, improved procurement practices, negotiated pricing with third party contractors that outperform actual construction indices, its safety and attendance record, among others.[158]

76. While Toronto Hydro's historical performance has been strong, the utility must continue to invest to maintain this performance and not back-slide.[159] Reinvesting in both short-term and long-term performance of an aged, deteriorated, and highly utilized system remains an urgent priority.[160] Toronto Hydro's DSP is designed and paced so as to avoid the accumulation of a backlog of risk – i.e. to avoid backsliding. Allowing such a backlog to develop, for example by allowing the population of assets with material deterioration to grow, will threaten the long-term viability of the system and result in higher costs, as well as reduced performance.

77. The evidence in the DSP links investment needs to the outcomes that the plan is designed to achieve.[161] Toronto Hydro demonstrated its commitment and ability to monitor performance against the plan and to drive continuous improvement in implementing its capital plan.[162] This includes using its rigorous customer-focused outcomes framework and its suite of 15 custom measures and associated targets proposed for the 2020-2024 plan period.[163] These measures are incremental to the measures contained in the Electricity Distributor Scorecard ("EDS") and the

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[156] 1B-CCC-15; Evidence Overview Presentation Transcript (May 3, 2019) at page 8, lines 16-17.
[157] J3.2; Exhibit 1B, Tab 2, Schedule 1, Appendix B at page 8.
[158] For a comprehensive listing, see Table 1 of J3.2; Exhibit 1B, Tab 2, Schedule 1 at pages 8-20; JTC4.30.2; OH Volume 7 (July 9, 2019) at page 169, lines 5-28 and page 170, lines 1-14.
[159] Evidence Overview Presentation Transcript (May 3, 2019) at page 12, lines 20-24 and at page 37, lines 6-11.
[160] Exhibit 2B, Section A1 at page 1, lines 14-15.
[161] Exhibit 2B, Sections E5-E8, Table 2 of each program summarizes the outcomes and measures addressed by those investments. Exhibit 2B, Section C.
[162] Exhibit 1B, Tab 2, Schedule 1; OH volume 1 (June 27, 2019) at page 97, lines 2-10.
[163] Exhibit 2B, Section C.

Electricity Service Quality Requirements ("ESQR"), for a total of 44 unique measures to be reported to the OEB annually.[164]

78. The DSP includes a comprehensive five-year expenditure plan comprised of 20 detailed capital programs, organized into the OEB's prescribed four investment categories: (i) System Renewal, (ii) System Service, (iii) System Access, and (iv) General Plant.[165]

79. As explained in each of the category-focused sections that follow, Toronto Hydro derived every element of its investment plan from a rigorous asset management process that resulted in the minimum level of investment needed to serve customers in alignment with their needs and preferences.[166] This continuous process accounts for and balances a range of input, including outcomes, customer input, asset needs assessment, sophisticated decision support tools, productivity, regional plans, and rate impacts.[167]

Toronto Hydro's System Renewal plan addresses necessary investment needs arising from aging, deteriorating, legacy, and obsolete infrastructure.

80. Toronto Hydro submits that the System Renewal part of the DSP appropriately addresses the needs of the distribution system by appropriately pacing necessary investments to replace aging, deteriorating, legacy, and obsolete infrastructure. A key driver of Toronto Hydro's DSP is the objective to maintain and, where appropriate, reduce, asset failure risk over the 2020-2024 period. This approach supports stable system reliability and safety outcomes for current and future customers.[168]

81. At approximately $325 million per year,[169] the System Renewal category continues to be the largest DSP category. This minimum level of investment is driven by asset failure and failure risk, and avoiding the negative effects on customers, employees, the public, and the environment that occur when this risk is not prudently managed.[170]

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[164] Exhibit 1B, Tab 1, Schedule 1 at page 20, lines 8-16 to page 23, lines 1-7.
[165] Exhibit 2B, Section E5-8.
[166] Exhibit 1B, Tab 1, Schedule 1 at pages 27-29; OH Volume 7 at pages 171-172, 196-197.
[167] Exhibit 2B, Section D1 and D3.
[168] Exhibit 2B, Section E2.2.1 at page 10, Table 1.
[169] Exhibit 2B, Section E4 at page 10, lines 1-2.
[170] Exhibit 2B, Section A2.2 at page 6, Section A4.1.1 at pages 10-11, and Section E2.2.4.3 at page 22, lines 3-9; Evidence Overview Presentation Transcript (May 3, 2019) at page 11, lines 4-11.

82. This is a reasonably paced renewal plan. Adjusting for inflation, the proposed expenditures are comparable to recent historical levels in this category and represent approximately the same share of the overall plan as 2015-2019.[171] An increase over 2015-2019 actual expenditures is necessary to address incremental pressures related to the deteriorating condition of critical asset classes (e.g. wood poles),[172] along with other acute drivers (e.g. PCB-related risks).[173]

83. Toronto Hydro's System Renewal plan (and the System Service and Access plans) resulted from the utility's robust and systematic Investment Planning and Portfolio Reporting ("IPPR") process. This rigorous process produces an optimized mix of capital programs for the planning horizon, including the forecast program expenditure levels and associated volumes of work and performance objectives. Proposed investment strategies are grounded in analysis of historical experience and robust internal processes to produce balanced results.[174] Toronto Hydro uses both engineering analytics and customer feedback to make hard choices during the process.[175]

System Renewal investments are critically important for the utility to achieve the reliability outcomes that customers said they need and want.

84. Asset failures continue to be the single biggest cause of power interruptions on the system. Defective equipment is responsible for 36% of overall average outage frequency (i.e. SAIFI) and 44% of overall average outage duration (i.e. SAIDI).[176]

85. Furthermore, failing equipment impacts outcomes beyond just system average reliability. Negative impacts from asset failures can also include:[177]

- Power interruptions and the associated costs incurred by customers, stakeholders, and the public;
- Contingency switching and restoration operations that further stress the assets;

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[171] OH Volume 1 (June 27, 2019) at page 41, lines 19-22; Exhibit 2B, Section E4 at page 15, Table 9.
[172] Exhibit 2B, Section D2 at page 17, lines 9-15 and page 18, lines 1-2.
[173] OH Volume 3 (July 3, 2019) at page 36, lines 7-13; Exhibit 2B, Section D2 at page 14, lines 14-22.
[174] Exhibit 2B, Section D3.4 at pages 41-46; 2B-Staff-67 at page 4, lines 11-27; 2B-SEC-59 at pages 2-3.
[175] Exhibit 2B, Section D3 and Exhibit 2B, Section E2.2.
[176] Exhibit 2B, Section A4 at page 11 and Section E2 at pages 14-15.
[177] These impacts are discussed throughout the System Renewal program evidence in Exhibit 2B, Section E6. For impacts of specific failure modes for assets in each sub-system see Tables 2-5 of Exhibit 2B, Section D2 at pages 21, 28, 35, and 40. For a more general discussion of the consequences and impact of failure, broken down by outcome category see Exhibit 2B, Section D3 at pages 25-29.

- Damage to adjacent equipment causing more extensive power outages requiring more costly workarounds;
- Safety risks to crews and the public from both electrical equipment and civil infrastructure (e.g. underground vaults); and
- Environmental impacts, such as oil spills.

86. Toronto Hydro's plan is paced and optimized to prudently manage these risks over the long-term through a balanced investment strategy that keeps price increases as low as possible during the 2020-2024 period.[178]

Asset Condition Assessment ("ACA") supports the need for a large, sustained renewal program.

87. The ACA demonstrates that major civil assets like poles and vaults, which are the backbone of a safe and viable distribution system, and major stations electrical assets, which have the highest potential reliability impact on the system, are showing the greatest signs of material deterioration.[179]

88. Examples of these demographic statistics are shown in the following table, where the "HI4" assets are those exhibiting "Material Deterioration", and "HI5" assets have reached "End-of-Serviceable Life" condition.[180]

System	Asset Type	Number in HI4 & HI5	
		2017	2024 (without investment)
Overhead	Wood Poles	11,951	34,273
Underground	Cable Chambers	487	805
Network	Network Vaults	40	114
Stations	KSO Oil Circuit Breakers	12	23

89. Toronto Hydro's enhanced ACA methodology improved the accuracy of its Health Index ("HI") scores.[181] To overcome limitations in the rigor, accuracy, and predictive capabilities of its prior ACA methodology,[182] the utility adopted a more

[178] Exhibit 1B, Tab 3, Schedule 1; Evidence Overview Presentation Transcript (May 3, 2019) at page 6 line 28 and page 7, lines 1-8.
[179] Exhibit 2B, Section E2.2.2.1 at pages 12-13.
[180] The full set of ACA results can be found in Exhibit 2B, Section D, Appendix C, at pages 10-11, Tables 2 and 3.
[181] Exhibit 2B, Section D, Appendix C; JTC1.16 at pages 4-7; OH Volume 4 (July 4, 2019) at page 136, lines 3-24.
[182] JTC1.16; OH Volume 4 (July 4, 2019) at page 136, lines 3-24; Exhibit 2B, Section D, Appendix C at pages 3-5.

sophisticated methodology (i.e. CNAIM) that was developed by Ofgem and uses "best practice techniques".[183] Toronto Hydro's implementation of the Current Health Score component of CNAIM fully replaced and vastly improved upon the entire functionality of the previous ACA.[184] Moreover, in adopting the Future Health Score component, Toronto Hydro moved beyond the industry standard capabilities for ACA in Ontario.

90. Toronto Hydro used asset health scores to calibrate the pace of investment in alignment with the objective of sustaining performance rather than improving it or allowing it to decline.[185] The result is a plan that will maintain the approximate number of all assets in HI4 and HI5 condition over the 2020-2024 period.[186]

91. Lesser investment will heighten risks, which will likely lead to worse reliability and safety during the plan period and beyond, as well as greater costs over the longer-term.[187]

Asset age demographics continue to buttress the findings of asset condition assessments in support of a large, sustained renewal program.

92. As assets age, their probability of failure increases.[188] Demographic analysis of Toronto Hydro's system continues to show a significant backlog of aging assets. This is a critical data point because age is a reliable proxy for condition, and condition is an important indicator of the probability of asset failure.[189] Approximately 23% of the utility's asset base is already operating beyond Useful Life (referred to as Assets Past Useful Life, or "APUL"), and an estimated additional 8% will reach that point by 2025 if proactive renewal is not pursued.[190] This would drive

[183] Toronto Hydro selected EA Technology to review the utility's implementation of the CNAIM as EA Tech team is the foremost experts in the CNAIM, having provided support for the development of the original methodology as well as the delivery and implementation of the common models to all U.K. distribution network operators. (Exhibit 2B, Section D, Appendix C at page 8, lines 26-31 and page 9, lines 1-2). See also Exhibit 2B, Section D, Appendix A at page 15 and OH Volume 8 (July 11, 2019) at page 194, lines 20-27.
[184] OH Volume 4 (July 4, 2019) at page 118, lines 10-27.
[185] For example the pacing of network vault renewal within the Network System Renewal Program (Exhibit 2B, Section E6.4) is set at a level (33 vaults addressed over 2020-2024) that, in combination with reactive renewal and the 29 vaults expected to be addressed over 2018-2019, is expected to approximately compensate for the 74 additional vaults estimated to reach HI4 and HI5 condition by the end of 2024 (Exhibit 2B, Section E2 at pages 33-34; Exhibit 2B,Section E6.4 at pages 2-3; 2B-SEC-61 at page 2; JTC1.11 at page 3).
[186] U-EP-64 at page 5, lines 8-12.
[187] Exhibit 1B, Tab 1, Schedule 1 at page 31, lines 6-13; Evidence Overview Presentation Transcript (May 3, 2019) at page 11, lines 5-9.
[188] OH Volume 1 (June 27, 2019) at page 65, lines 8-10; OH Volume 9 (July 12, 2019) at page 41, lines 20-26.
[189] OH Volume 9 (July 12, 2019) at page 41, lines 20-26; Exhibit 2B, Section D1 at page 12.
[190] U-AMPCO-133.

performance down and costs up; both of which are contrary to customers' interests and preferences.

93. The APUL backlog issue is especially salient for certain asset classes, such as pole top transformers. For these transformers, Toronto Hydro expects a 14% APUL as of 2017 to balloon to 40% by 2024 without the proposed investments.[191] While Toronto Hydro does not replace assets on the basis of age alone (and does not set performance targets for system age), age demographics are nonetheless an important proxy for condition. Age is also a widely-accepted leading indicator of system-wide investment needs and how those needs are changing over time.[192]

94. Toronto Hydro is taking a paced approach to manage the persistent problem of assets past or reaching end of Useful Life. Replacing the 23% of assets currently past Useful Life and the additional 8% projected to reach that point during the 2020-2024 period would cost upwards of $4.5 billion, before accounting for inflation.[193] Instead, Toronto Hydro is proposing $1.6 billion in System Renewal during the 2020-2024 period.[194]

95. Toronto Hydro's System Renewal plan is critical to ensure recent performance improvements and grid stabilization are not lost. In the short-term, a return to underinvestment in the System Renewal category will increase the APUL backlog, which is likely to result in a corresponding deterioration in reliability, safety, and other outcomes driven by asset failure and failure risk.[195] In the long-term, it will produce a system that is failing its customers, and that requires a very large increase in funding to remediate.

Legacy and obsolete assets continue to require steady, significant investments to address the unique and complex problems that they perpetuate and aggravate over time.

96. Complicated pressures from the utility's mix of poor performing legacy assets (e.g. rear lot circuits) continue to demand a paced replacement approach over the period. Toronto Hydro and its customers continue to face long-term challenges associated with specific asset types, configurations, or sub-systems that do not meet current standards. They often feature obsolete components with limited or no supplier or skilled labour support for maintenance, repair, or replacement, and

[191] Exhibit 2B, Section A4 at page 11, lines 4 to 7.
[192] Exhibit 2B, Section D1 at page 13, lines 12-18; OH Volume 9 (July 12, 2019) at page 41, lines 27-28 and page 42, lines 1-6.
[193] 2B-Staff-73, part (e). The estimated replacement value of the entire system is between $10 billion and $15 billion.
[194] Exhibit 2B, Section E1.2 at page 3, Table 2.
[195] Exhibit 2B, Section E2.2.2.1 at page 12, lines 5-10.

result in elevated reliability, safety, or environmental risks.[196] Major examples include:

- Rear lot construction and box construction, which present unique reliability, safety, and operational problems affecting nearly every outcome category.[197]

- Direct-buried "XLPE" cable, which is the single largest contributor to customer interruptions on the underground system.[198]

- Non-submersible network protectors, which are highly vulnerable to flood damage that can result in extensive power outages due to catastrophic failures.[199]

- Polychlorinated biphenyl ("PCB") contaminated transformers, which due to their toxic characteristics are the subject of federal and municipal regulatory oversight,[200] and are pervasive throughout Toronto Hydro's system,[201] thus requiring a very large, fully-funded initiative to resolve.[202]

- Asbestos- and lead-covered cables ("AILC" and "PILC"), which cause environmental, safety and reliability problems.[203]

- Legacy stations equipment, including KSO oil circuit breakers, which present a safety risk to Toronto Hydro crews; operational risk from collateral damage to adjacent station equipment; and in some cases, a public safety risk or an environmental hazard.[204]

97. Toronto Hydro provided detailed program-level evidence that demonstrates a clear link between the underlying risk drivers discussed above, the proposed volumes of work and associated expenditures required to prudently manage those risks during the 2020-2024 period, and the expected outcomes resulting from each program expenditure plan.[205] Each program represents the minimum level of investment

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[196] Exhibit 2B, Section D2 at page 15, lines 2-5.
[197] Exhibit 2B, Section D2 at pages 20-21; Exhibit 2B, Section E6.1.
[198] Exhibit 2B, Section D2 at pages 25-27; Exhibit 2B, Section E6.2.
[199] Exhibit 2B, Section D2 at page 34; Exhibit 2B, Section E6.4.
[200] Exhibit 2B, Section E2.2.3.2 at page 36, lines 16-21; OH Volume 3 (July 3, 2019) at page 36, lines 7-11.
[201] Exhibit 2B, Section D2.2 at page 12, Table 1.
[202] Exhibit 2B, Section D2.2.1 at page 18, lines 18-22; Exhibit 2B, Section E2.2.1 at page 10, Table 1; and, Exhibit 2B, Section E6.5 at page 11, lines 6-11.
[203] Exhibit 2B, Section D2 at page 27; Exhibit 2B, Section E6.3.
[204] Exhibit 2B, Section D2 at page 40, Exhibit 2B, Section E6.6.
[205] Exhibit 2B, Section E6.

required to maintain system reliability, manage asset risk for the long-term, and deliver on critical safety and environmental objectives in accordance with good utility practice.[206]

Toronto Hydro's System Service plan targets a select number of system enhancement needs that address critical challenges on the grid.

98. Toronto Hydro's System Service part of the DSP appropriately addresses critical: (i) capacity investments to address stations-level constraints in areas of high growth and development; and (ii) targeted system design and modernization initiatives that address asset risk and enhance customer value using cost-effective technologies.[207]

99. Over the 2020-2024 period, Toronto Hydro plans to spend $237.7 million in System Service. This is a reduction compared to 2015-2019 spending, which was elevated in part due to the Copeland TS Phase 1 project.[208]

100. Toronto Hydro's proposed 2020-2024 Stations Expansion investments are lower than 2015-2019.[209] All of the planned interventions are necessary to address stations bus-level constraints. The planned projects, including the timing of those projects, are fully aligned with results of the Integrated Regional Resource Plan ("IRRP") activities conducted in coordination with the Independent Electricity System Operator ("IESO") and Hydro One.[210]

101. Toronto Hydro is investing what is necessary to prevent system capacity from deteriorating.[211] The utility's 10-year station load forecast is that capacity availability will erode at 13 stations, most of which are highly loaded and have either few or no spare feeder positions available. Without such spare feeder positions, it is not possible to enable load transfers or additional capacity.[212] If these issues are not addressed as proposed, Toronto Hydro is at risk of not being able to connect customers or resolve contingency events.

102. Toronto Hydro considers a variety of options to secure capacity where needed, and continues to prudently deploy non-wires solutions where technically feasible and

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[206] Exhibit 2B, Section E2.2.3.2 at page 22, lines 3-9.
[207] Exhibit 2B, Section E2.2.3.3 at page 37, lines 9-11.
[208] Lower forecasted expenditures are also due to a deliberately restrained 2020-2024 System Enhancements program (Exhibit 2B, Section E7.1) and the completion of a number of smaller System Service programs in 2015-2019. This is partially offset by the introduction of the Network Condition Monitoring and Control program (Exhibit 2B, Section E7.3).
[209] Exhibit 2B, Section E7.4.
[210] Exhibit 2B, Section E2 at page 37.
[211] Exhibit 2B, Section A6 at page 39.
[212] Exhibit 2B, Section E7.4.3 at page 5, lines 11-16.

cost-effective, in order to optimize customer value. For example, through local demand response initiatives, Toronto Hydro expects to defer an estimated $135 million of expansion investments at Cecil TS and Basin TS during the 2020-2024 period.[213]

103. Toronto Hydro's planned investments in its System Enhancements program are also reduced relative to 2015-2019. The pace of investment in this area over the 2020-2024 period was scaled-back in light of progress made in 2015-2019 and to reflect customer preferences for maintaining current levels of reliability.[214] Despite this restraint, the planned investment are essential to supporting the reliability outcomes targeted by the DSP,[215] including the need to continue improving system resiliency (including restoration capabilities) in the face of increasingly frequent adverse weather events.[216] This program will also still enhance Toronto Hydro's ability to efficiently restore power to customers in the Horseshoe area and install protection devices upstream of customer-owned equipment to rectify inadequate protection.[217]

104. To address performance risks and connection capacity challenges on the low voltage secondary network system, which supplies 13 percent of the peak load in downtown Toronto, including to key customers like banks and hospitals, Toronto Hydro developed the Network Condition Monitoring and Control program for 2020-2024. This program installs remote sensors and switching technology in network vaults.[218] These customers face an eroding network at a time when the compact and reliable design of this network is becoming an increasingly effective option for medium and large customers in developing, high-density areas of the City.[219] Toronto Hydro's customers were particularly supportive of focusing on monitoring and control technology to improve the utility's ability to monitor for fires, floods and other risks on the network system.[220] The proposed program has been paced to reflect these preferences.[221]

105. Toronto Hydro's System Service plan includes a modest Energy Storage Systems program.[222] Energy storage systems have emerged as another distribution asset

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[213] Exhibit 2B, Section E2 at page 39; Exhibit 2B, Section E7.4 at page 2; Section E7.4 at pages 38-41.
[214] Exhibit 2B, Section A6 at page 38.
[215] Exhibit 2B, Section E7.1 at page 2, Table 2.
[216] Exhibit 2B, Section A4 at pages 11-14.
[217] Exhibit 2B, Section E7.1 at page 1.
[218] Exhibit 2B, Section E7.3.
[219] Exhibit 2B, Section E2 at page 39.
[220] Exhibit 1B, Tab 3, Schedule 1, Appendix A at page 17; Exhibit 2B, Section E2 at page 57, lines 18-27 and page 58, lines 1-12.
[221] Exhibit 2B, Section E2 at pages 57-58; 2B-Staff-73 at page 9.
[222] Exhibit 2B, Section E7.2.

option available to the utility to address distribution system and customer needs.[223] The utility will deploy energy storage systems where there are cost-effective benefits to the grid and customers. Toronto Hydro will consider implementing these "non-wires" technologies in situations where the utility would otherwise use "wires" solutions, but where energy storage offers greater reliability, customer service, cost-effectiveness, or other net performance benefits.[224] As with any distribution system investment, the costs for these projects will follow the benefits, in accordance with well-established OEB requirements. For example, any customer-specific ESS projects will be funded by entirely by the requesting customer, in the same way that connection assets are entirely paid for with capital contributions by customers.[225]

Toronto Hydro's System Access investments are necessary to comply with legally mandated service obligations.

106. Toronto Hydro's System Access part of the DSP appropriately addresses the utility's legally mandated service obligations, including the requirement to safely connect load and generation customers in a timely manner, and requirements to comply with revenue metering and billing standards.[226]

107. The pacing of Toronto Hydro's investments in this category is largely dictated by the forecasted externally-driven demand in these areas over the 2020-2024 period.[227] Drivers include population growth and urban development, localized load growth from high-rise construction, and, in the case of metering investments, compliance with measurement regulations. The overall increase in 2020-2024 expenditures relative to 2015-2019 is primarily driven by continued growth in customer connections demand, major externally initiated relocations projects, and, beginning in 2022, the need to renew the utility's end-of-life meters for residential and general service customers.[228]

108. Toronto Hydro's proposed Customer Connections investments are necessary to provide new and upsizing customers with timely, cost efficient, reliable, and safe access to the distribution system.[229] This includes both load and generation customers. These investments respond to and enable growth in the City of Toronto,

[223] OH Volume 1 (June 27, 2019) at page 132, lines 22-28.
[224] 2B-Staff-90(c).
[225] Exhibit 2B, Section E7.2 at page 1, Table 1.
[226] Exhibit 2B, Section E2.2 at page 17.
[227] *Ibid*.
[228] Exhibit 2B, Section E4.2.1.
[229] Exhibit 2B, Section A6 at page 33; Exhibit 2B, Section E5.1 and Section E2 at pages 17-20.

particularly the accelerated pace of high-rise construction.[230] By appropriately accounting for trends in historical expenditures, and with attention to growth outlooks, Toronto Hydro's proposal for the segment represents a best reasonable forecast in light of inherent volatility.[231] Toronto Hydro's Generation Connection expenditure plan aligns with its conservative forecast for distributed generation connections, which accounts for historical trends, completed assessments, and anticipated projects with respect to various distributed generation programs.[232]

109. Externally Initiated Plant Relocations and Expansions investments are necessary to support of growth and development in the City of Toronto.[233] In some instances, it increases the capacity of Toronto Hydro's system, creating efficiencies by pairing necessary and prudent expansion work with the required relocation work.[234] The timing and scope of work in this program is difficult to predict and largely out of Toronto Hydro's control. As such, Toronto Hydro seeks to continue the variance account for Externally Driven Capital to record the difference between the capital spending embedded in base distribution rates (for known projects with external commitments) and the actual spending over the 2020-2024 plan period. This approach will allow Toronto Hydro to fund necessary non-discretionary work, while protecting ratepayers from the inherent uncertainties.[235]

110. Through Load Demand investments, Toronto Hydro alleviates acute capacity constraints in localized areas.[236,237] These investments are also essential to maintaining sufficient grid flexibility to handle contingency scenarios and optimize planned work schedules, contributing to reliability, and improving customer satisfaction by providing large customers with greater scheduling flexibility for planned outages.[238] The expenditure plan reflects specific needs identified through Toronto Hydro's Distribution Capacity and Capability Assessments.[239]

111. The increases in Metering investments planned for the 2020-2024 period are mainly driven by a ramp-up in 2022 of end-of-life low-volume customer meter replacements.[240] Without intervention, 90 percent of these meters will be operating

[230] Exhibit 2B, Section A4 at pages 14-15.
[231] *Ibid*.
[232] Exhibit 2B, Section E3.2; Exhibit 2B, Section E5.1; 2B-Staff-74(a) at page 2.
[233] Exhibit 2B, Section E2 at page 20.
[234] Exhibit 2B, Section E2 at page 18.
[235] Exhibit 2B, Section E5.2 at page 8; Exhibit 9, Tab 1, Schedule 1 at pages 14-17.
[236] Exhibit 2B, Section E5.3.1.
[237] Exhibit 2B, Section E5.3.3.1.
[238] Exhibit 2B, Section E2 at page 18.
[239] Exhibit 2B, Section E5.3 at page 23.
[240] Exhibit 2B, Section A6 at page 34.

beyond their expected useful life as of 2025, presenting unacceptable levels of risk to critical customer service outcomes.[241] Toronto Hydro extended the pace of these replacements following the second phase of customer engagement to accommodate increases in other programs that customers strongly supported.[242]

112. The Generation, Protection, Monitoring, and Control program is necessary to alleviate existing capacity constraints that prevent the safe and reliable connection of customer-owned distributed generation (including renewables).[243] These investments are critical to safely and efficiently monitor and control customer-owned distributed generation on the Toronto Hydro system, which is expected to reach 800 MW in capacity by the end of 2024.[244]

Toronto Hydro's General Plant investments are necessary to keep the utility's "24/7" operations running safely, effectively, and efficiently.

113. Toronto Hydro's General Plant section of the DSP appropriately addresses the investments necessary to keep the utility's "24/7" operations running safely, effectively, and efficiently. The investment pacing and specific projects are driven by prudent lifecycle cost management principles, business continuity needs, and emerging customer needs and preferences.[245] The plan was developed based on appropriate asset management principles and strategies.[246] The overall expenditure level in this category is comparable to the 2015-2019 period.[247]

114. Toronto Hydro's General Plant expenditures are typically driven by routine, asset lifecycle, and condition-based needs. They sustain the infrastructure that enables the day-to-day operations of fleet, facilities, and information/operational technology ("IT/OT"), which support field work and customer service.[248] Timely investments in these areas are required to support the achievement of all DSP outcomes.

115. Toronto Hydro derived its General Plant investment plans from rigorous asset management processes aligned with the principles of its distribution system asset management approach.[249] Planning in these programs balances the need to

[241] Exhibit 2B, Section E2 at page 21, lines 2-3.
[242] 2B-Staff-73 at page 6.
[243] Exhibit 2B, Section A6 at page 35.
[244] Exhibit 2B, Section E3, E5.1.
[245] Exhibit 2B, Section E2 at page 40, lines 18-24.
[246] Exhibit 2B, Sections D4, D5 and E8.3.
[247] Exhibit 2B, Section E4 at page 13.
[248] Exhibit 2B, Section E2 at pages 41-42.
[249] Exhibit 2B, Section D1 at page 1.

minimize overall lifecycle costs, mitigate safety and security risks, improve efficiencies, and ensure business continuity. As it does with its distribution system, the utility relies on data-driven risk and lifecycle analysis to make prudent decisions about when to replace, maintain, and enhance its facilities, fleet, and IT/OT assets. Customer-focused outcomes, including cost control and productivity opportunities, are central factors in all of these decisions.[250]

116. Toronto Hydro's Fleet and Equipment is grounded in a robust analysis of the utility's experience from 2013 to 2016. The utility refreshed its Lifecycle Cost Analysis ("LCA") in 2017 with the assistance of a third-party consultant.[251] Following an options analysis that incorporated the LCA,[252] Toronto Hydro determined that when warranted by actual vehicle condition, the optimal asset management strategy was like-for-like replacement.[253] Consequently, as compared to 2015-2019, a greater number of heavy duty vehicles require reinvestment over the 2020-2024 period.[254] This is the primary driver of an increase in forecasted fleet costs.

117. Toronto Hydro's Facilities Management and Security plan is similarly grounded in rigorous asset management analysis. The utility introduced a robust facilities management system that records condition assessments and maintenance plans for all assets in the utility's work centers and stations, ensuring the utility is only replacing assets that are at end-of-life and in poor condition.[255] In its asset management review, UMS highlighted this new system as "placing the utility above the average […] in asset management competence".[256] The plan takes into account lifecycle analysis, makes selective enhancements, meets compliance standards, and involves the continual analysis of asset condition on planned daily, monthly, and annual cycle.[257] The result is a plan that targets facilities asset in poor condition.[258] Facilities upgrade investments, such as the installation of advanced access control equipment and intercom devices at all of Toronto Hydro's buildings and stations, are also necessary to increase Toronto Hydro's resilience against security risks and ensure continued compliance with the OEB's Cyber Security Framework.[259] There is an important, if often less talked about physical dimension to cyber security and

[250] Exhibit 2B, Section E8.
[251] Exhibit 2B, Section E8.3 at page 9, lines 15-16 and page 10, lines 1-7.
[252] OH Volume 5 (July 5, 2019) at page 4, lines 11-15.
[253] Exhibit 2B, Section E8.3 at pages 15-19; TC Volume 3 (February 21, 2019) from page 109, line 25 to page 111, line 14 and from page 112, line 8 to page 113, line 8; OH Volume 5 (July 5, 2019) at page 15, lines 4-20.
[254] Exhibit 2B, Section E8.3 at page 11, lines 16-21. See also J5.1.
[255] Exhibit 2B, Section D4 at page 5.
[256] Exhibit 2B, Section D, Appendix A at page 16.
[257] Exhibit 2B, Section D4 at page 1.
[258] Exhibit 2B, Section E8.2 at page 6, lines 6-8 and 16-20.
[259] Exhibit 2B, Section E8.2 at page 15, lines 15-2 and page 16, lines 1-10.

similar risks, which Toronto Hydro needs to address through this Facilities plan, in order to support business continuity for the utility and its customers.

118. Toronto Hydro's IT/OT plan is primarily focused on maintaining current business capabilities by replacing assets and upgrading high-priority systems that have reached end of life. An ever-increasing reason for that need is the prevalence of cyber-attacks.[260] Utility companies are targets for security breaches because of the critical role they play in the operation of essential services (e.g. hospitals, public transit, and traffic management) and the vast databases of confidential customer information they possess. This is especially true for Toronto Hydro, which plays a critical function in a global urban center. Planned investments in IT/OT are necessary in part to address these cyber-security risks.[261]

119. IT hardware and software perform many critical functions that support customer-facing systems, core distribution operations, and other important processes. This infrastructure enables various customer self-service functions, supports systems that are used to manage field crews and respond to outages, and supports the utility's environmental, health, and safety processes across work centers and job sites.[262] Whereas in the 2015-2019 plan Toronto Hydro undertook a stand-alone ERP implementation project, in the 2020-2024 plan the ERP investment and most other investments are part of addressing the normal course needs associated with IT infrastructure.[263] In reviewing utility's asset management, UMS determined that, "IT's performance of risk assessments, lifecycle analysis, and business cases exceeds industry standard practices for this domain."[264]

120. In this period, Toronto Hydro must upgrade to a fully supported customer information system ("CIS"). The utility's CIS currently processes approximately $18 million of transactions per day[265] and is highly interconnected within the utility's digital operations (33 major integration points with other systems).[266] For over two years, the legacy CIS has been out of vendor support and is therefore increasingly exposed to reliability and cyber security risks.[267] A successful cyber-attack on the CIS could compromise customer personal and financial information, as well as usage

[260] Exhibit 2B, Section E8.4.3.2 at pages 7, lines 18-22.
[261] Exhibit 2B, Section E2 at page 41, lines 9-24 and page 42, lines 1-6; Toronto Hydro Evidence Overview Presentation Transcript (May 3, 2019) from page 24, line 5 to page 25, line 8.
[262] Exhibit 2B, Section E8.4 from page 3, line 8 to page 5, line 15.
[263] Exhibit 2B, Section E8.4 at page 18, lines 17-24.
[264] Exhibit 2B, Section D, Appendix A at page 16.
[265] Exhibit 2B, Section E8.4 at page 9, lines 7-8.
[266] Exhibit 2B, Section E8.4 at page 19, line 30 and page 20, lines 1-2.
[267] Exhibit 2B, Section A4 at page 18, lines 3-8; Exhibit 2B, Section E8.4 at page 9, lines 9-10.

and billing data, which can lead to fraud and identity theft.[268] Any system failure in the CIS can significantly affect customer service,[269] cause billing delays that result in major customer and financial impacts, and put at risk Toronto Hydro's ability to meet OEB-established performance standards, such as billing accuracy.[270] Toronto Hydro's plan addresses this need.

121. In this IT/OT plan, Toronto Hydro demonstrates its need to make the proposed investments in its operational technologies used directly in field operations. Examples include: upgrading distribution system communication technology, replacing and expanding distribution system fibre-optic plant, upgrading wireless Supervisory Control and Data Acquisition ("SCADA") infrastructure, and expanding underground radio technology. These are needed to address functional obsolescence, address safety and reliability risks, and support the monitoring and control of future smart grid technologies. Customers strongly support the utility making investments such as these, which address reliability and cost control objectives.[271] Toronto Hydro's proposed IT/OT plan is supported by independent benchmarking by Gartner Consulting,[272] which concluded that 2017 actuals and 2020 forecast demonstrate lower costs than the industry peer group on various metrics and that areas of investment are comparable to the peer group.[273]

122. Toronto Hydro plans to further support the growing city and be responsive to cyber security risks through the Control Operations Reinforcement Program. With the growing economic and institutional importance of the City of Toronto and the existence of threats from factors such as climate change and terrorism, operational resilience of the utility is becoming a greater concern for Toronto Hydro, its customers, and other stakeholders.[274] At the same time, there is increasing need for the utility to have visibility into the more dynamic grid it operations to better serve its load and generation customers, including those with distributed energy resources (DERs).

123. To proactively and synergistically address these challenges discussed above, instead of simply expanding its control center on a single site, Toronto Hydro plans to expand its operations with a fully functional dual control center at a separate site.[275]

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[268] Exhibit 2B, Section E8.4 at page 7, lines 23-26 and page 9, lines 11-12.
[269] Exhibit 2B, Section E8.4 at page 7, lines 13-17.
[270] Exhibit 2B, Section E8.4 at page 9, lines 7-9.
[271] Exhibit 2B, Section E8.4 from page 12, line 23 to page 13, line 4; see also Exhibit 2B, Section E8.4.3.3 at pages 12-14.
[272] Exhibit 2B, Section E8.4, Appendix A.
[273] Exhibit 2B, Section E8.4 at page 15, lines 24-28; see also Exhibit 1B, Tab 2, Schedule 1 at page 25, lines 4-19 and Exhibit 2B, Section E8.4, Appendix A.
[274] Exhibit 2B, Section E2 at page 42; Exhibit 2B, Section E8.3 at pages 2-3.
[275] Exhibit 2B, Section E2 at page 42, lines 14-21.

This investment is based on a thorough gap analysis of the utility's existing control center resiliency, and future needs, and is supported by a review of comparator utilities and economic analysis undertaken by London Economics International ("LEI"). LEI confirmed that utilities serving a critical load in North America similar to Toronto Hydro invest in more than one fully functioning control center for similar rationales, such as supporting resiliency, increasing reliability, and ensuring quick recovery from terrorist threats and natural disasters.[276] This is a more prudent course of action than upsizing control operations at a single site.

The utility's performance in executing its 2015-2019 DSP demonstrates its ability to execute an effective and efficient plan within forecasts over a five-year period.

124. Toronto Hydro has demonstrated the ability to execute its capital programs in an effective and efficient manner and with a focus on customer value. Despite the complexity of its operating environment and associated challenges and cost pressures, the utility has a proven track record of successfully completing planned work to address system requirements and customer needs while continuously achieving productivity gains.[277]

Toronto Hydro has demonstrated its ability to execute a large, multi-year capital program.

125. The 2020-2024 DSP is consistent with Toronto Hydro's proven ability to successfully plan and complete large scale and complex capital work. The company has executed a capital program of similar size and complexity over the 2015-2019 period. Over 90% of the work contained within the 2020-2024 DSP is a continuation of the same type of investments from the 2015-2019 DSP.[278]

126. For the 2015-2019 period, Toronto Hydro's in-service additions are expected to be $2,504.8 million, which is within 1% of the approved amount of $2,468.0 million.[279] For the same period, capital investments within System Renewal (which is by far the largest investment category in the DSP) are expected to total 1,310.2 million, which is about 1% above the total planned System Renewal investments of $1,294.5 million as set out in the 2015-2019 DSP.

[276] Exhibit 2B, Section E2 at page 42, lines 22-29; Exhibit 2B, Section E8.1 at page 3, lines 5-18; see also Exhibit 1B, Tab 2, Schedule 1 at pages 28-29 and Exhibit 2B, Section E8.1, Appendix A.
[277] Evidence Overview Presentation Transcript (May 3, 2019) at pages 28-29.
[278] 2A-AMPCO-16(a) and Exhibit 2A, Tab 4, Schedule 2.
[279] Exhibit U, Tab 2, Schedule 1, Appendix A.

127. With the funding flexibility enabled by the 5-year envelope approved by the OEB for 2015-2019, Toronto Hydro has managed to successfully adjust to the realities on the ground that require it to adjust the timing and specifics of particular work (e.g. advance or defer a planned project because of weather, emerging needs, or municipal permitting).[280] In developing each 2020-2024 capital program, Toronto Hydro assessed execution risks, lessons learned and mitigation measures, all to ensure that the resulting capital programs and overall portfolio will be feasible in terms of implementation and construction, within a 2020-2024 funding envelope.[281]

128. With the requisite degree of flexibility to manage the execution complexities associated with an aging system in a large dynamic urban environment, given its track record of successfully completing similar capital programs, the utility is confident that it can execute the proposed plan over the next five years within the proposed capital expenditure envelope.

Toronto Hydro has demonstrated its ability to deliver customer-focused outcomes through well prioritized investments.

129. In addition to the success of the 2015-2019 plan through the lens of capital completion and in-service additions, a multitude of performance measures also attest to Toronto Hydro's ability to implement its plan in a way that achieves tangible outcomes for the utility and its customers.[282] There is close alignment between customer priorities and the utility's outcomes framework. The sustainment and improvement of performance measures drive benefits and objectives that matter to customers.[283] These measures encompass various outcome areas, such as box construction conversion and total recorded injury frequency under the safety outcome, oil spills containing PCBs under the environmental outcome, customers on e-bills under the customer service outcome, and SAIDI and SAIFI under the reliability outcome.[284]

130. The evidence extensively details numerous improvements and successes at the performance measure level.[285] For example, the Application Update provided a comprehensive view of 2014 to 2018 performance measure results, including in respect of the Electricity Distribution Scorecard, Service Quality Requirements, reliability performance, 2015-2019 DSP measures, 2018 corporate scorecard, and

[280] JTC2.23 at page 2.
[281] Exhibit 2B, Sections E5-E7 ("Execution Risks and Mitigation" sections).
[282] OH Volume 3 (July 3, 2019) at page 60.
[283] OH Volume 7 (July 9, 2019) at pages 173-174.
[284] Exhibit 2B, Section C.
[285] See, for example, Exhibit 1B, Tab 2; Exhibit 2B, Section C; Exhibit 2B, Sections E5 to E8; 1B-SEC-8; 1B-CCC-15.

2020-2024 custom performance measures.[286] As of 2018, 16 out of 17 Electricity Distributor Scoreboard and Service Quality Requirement measures with targets exceeded the OEB target or average,[287] with instances of measurable improvements clearly illustrated.[288]

131. In aggregate, these measures demonstrate the effectiveness of Toronto Hydro's plan in terms of attaining results that customers value, and support ongoing performance tracking as the capital plan is implemented.

Toronto Hydro has demonstrated its ability to execute a large capital program efficiently.

132. Toronto Hydro has a long-standing culture and history of achieving efficiencies, which has led to productivity savings embedded in the proposed program expenditures.[289] The effect of these achievements is reflected through the utility's strong performance in its benchmarking results.[290]

Strong Unit Cost Benchmarking

133. The UMS Unit Cost Benchmarking Study placed Toronto Hydro in the second quartile for 10 out of 11 cost categories compared to 17 peer electric utilities across North America.[291] Based on the comparison of average unit costs for major asset classes and maintenance activities, UMS concluded that the utility "is operating from a position of strength with respect to Unit Costs".[292] Toronto Hydro views these results as indicative of the ongoing success of its cost control efforts (e.g. strong procurement and project governance practices, process improvements to increase project wrench time) during the execution of its large and complex renewal program in recent years. Toronto Hydro expects to utilize this UMS study and future studies to inform its efforts to push towards first quartile performance.[293]

Contained Contractor Price Escalations

134. Unit costs for Toronto Hydro's work programs that are executed by contractors have increased at a rate of 1.52%, which compares very favourably to both

[286] Exhibit U, Tab 1B, Schedule 1.
[287] Exhibit U, Tab 1B, Schedule 1, Table 1; Evidence Overview Presentation Transcript (May 3, 2019) at page 4.
[288] J3.2, Table 2.
[289] Evidence Overview Presentation Transcript (May 3, 2019) at pages 28-29; OH Volume 6 (July 8, 2019) at pages 79-80.
[290] Please see Appendix A of this Argument.
[291] J3.2 at page 1; Exhibit 1B, Tab 2, Schedule 1, Appendix B at page 7.
[292] Exhibit 1B, Tab 2, Schedule 1, Appendix B at page 8.
[293] JTC4.30.2 at page 3.

construction union wages in the City of Toronto (2.14%) and municipal infrastructure construction price indices as reported by Statistics Canada (3.21%).[294] This is due to the utility's unit cost management approach, the effectiveness of the utility's own productivity improvement efforts (e.g. maximizing wrench time for crews)[295] as well as the effectiveness of its procurement processes and contractor management.

Strong Total Cost Benchmarking

135. Toronto Hydro's productivity enhancement efforts have also contributed to strong Total Cost Benchmarking results despite ongoing cost pressures stemming from an aging distribution system and complex operational demands. Power System Engineering ("PSE") found that the utility remains better than the predicted benchmark relative to appropriate comparator utilities in the U.S. and Ontario. Specifically, Toronto Hydro's historical average total cost levels from 2015-2017 were 18.6% below benchmark expectations and projected total cost levels for 2020-2024 are 6.0% below benchmark expectations.[296]

136. This performance was achieved despite the significant capital investment needs and a myriad of other cost pressures, including extreme weather events, technology driven challenges, retiring workforce, increasing customer expectations, and evolving legislative and regulatory requirements.[297] In addition to these broad pressures affecting utility management and operations, Toronto Hydro faces specific cost pressures such as insurance premiums and deductibles, postage, and other costs growing as pace greater than general inflation.[298] These practical challenges further underscore Toronto Hydro's success in cost-effectively executing its plan.

Toronto Hydro is committed to achieving productivity and continuous Improvement in the 2020-2024 period.

137. For the 2020-2024 period, Toronto Hydro's plan will continue to drive efficiency and productivity gains, including through the competitive procurement of contractor services and other cost control initiatives.

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[294] JTC4.30.2 at page 2; J5.6, page 2.
[295] Evidence Overview Presentation Transcript (May 3, 2019) at pages 27-28; J3.2 at page 4.
[296] Exhibit 1B, Tab 4, Schedule 2 at pages 5-7.
[297] 3-AMPCO-68.
[298] J3.2 at pages 1-2.

Competitive Procurement and Contractor Management

138. Toronto Hydro's procurement process drives continuous improvement and market efficiency for the majority of the utility's capital costs. Third party service providers are used where they are cost-effective options that enable the utility to meet peak resourcing demands, maintain flexibility in operations, and access specialized expertise.[299] Pursuant to its Procurement Policy, Toronto Hydro undertakes a rigorous procurement process for all OM&A and capital services that are contracted out.[300] Over 80% of the utility's capital program is determined through competitive procurement and delivered at market costs.[301]

139. Toronto Hydro's ongoing efforts with respect to procurement and contractor management will continue to drive productivity going forward. In fact, based on current trends, average growth in contractor unit price for 2015-2024 is expected to remain lower than both the construction labour inflation index and the municipal infrastructure construction price index.[302]

Anticipated Productivity Gains and Initiatives

140. Toronto Hydro detailed in evidence the investments and initiatives that will support its efforts to control costs and increase productivity over the 2020-2024 period.[303]

141. For example, enhanced control center work management increased wrench time for crews (i.e. reduction in average time crews spend waiting for planned Hold Offs and less delays in advancing field work execution). This avoided costs and led to the more efficient delivery of capital programs, which is ultimately reflected in Toronto Hydro's unit cost and total cost performance benchmarking.[304]

142. Other capital productivity initiatives reflected in the proposed plan include:

- improved employee attendance and reduced total recordable injury frequency;
- right-sizing of fleet, and efficiencies in the fleet and equipment program;

[299] 2A-EP-31.
[300] Exhibit 4A, Tab 3, Schedule 1, Appendix A; 1B-Staff-8.
[301] Evidence Overview Presentation Transcript (May 3, 2019) at page 29; 2B-BOMA-59.
[302] JTC4.30.2 at page 2.
[303] Exhibit 2B, Section A4.4; 1B-CCC-14; Exhibit J3.2; OH Volume 7 (July 9, 2019) at page 159, lines 10-25 and page 161, lines 21-27; J7.7 at page 2, lines 1-5 and Table 1.
[304] J3.2; Exhibit 4A, Tab 2, Schedule 7 at pages 14-17; Exhibit 1B, Tab 2, Schedule 1 at pages 13-16.

- optimization of facilities;
- use of a third-party logistics warehousing services provider;
- direct material purchase from suppliers;
- renegotiated employee benefits;
- enhanced condition assessment of work center and stations assets; and
- as noted above, procurement and contractor management efforts that have contributed to low contractor price escalations.

143. In addition, investments in the modernization of distribution system assets and operational technology (e.g. the continuing proliferation of SCADA-enabled control equipment and ongoing roll-out of next-generation smart meters) are contributing to productivity and cost control by allowing the utility to achieve better performance results within available resources. Examples include:

- Investments in monitoring and control technology systems have increased efficiency in the completion of connection impact assessments.[305]
- Investments in customer service technology related to transactional systems, customer self-service, and metering infrastructure enables productivity in areas such as increased adoption of e-bills,[306] reduced meter data processing costs,[307] sustained success in billing accuracy reducing manual effort to prepare bills and respond to customer questions, the ability to disconnect and reconnect customers remotely without sending a crew to the customer location, and online customer activities such as use of online forms and payments.[308]

144. Toronto Hydro's framework of current and future productivity processes and initiatives will foster increasingly sophisticated performance measurement, identify new efficiency opportunities, and use technology to streamline manual, labour-intensive processes.[309]

[305] Exhibit 2B, Section E5.5.6.
[306] Exhibit 2B, Section C2.1.1; 4A-VECC-33.
[307] Exhibit 4A, Tab 2, Schedule 14 at page 11.
[308] J3.2 at pages 7-8.
[309] 1B-CCC-14.

3.3 Is the proposed treatment of renewable enabling improvement investments appropriate?

145. Toronto Hydro's proposed treatment of REI investments is appropriate and aligns with applicable OEB guidance and requirements.

146. Toronto Hydro proposes approximately $18.6 million for new REI projects over the 2020-2024 plan period.[310,311]

147. The utility applied the standard 6 percent direct benefit assumption provided by the OEB with respect to REI investments to calculate the provincial rate protection amounts.[312]

148. Accordingly, Toronto Hydro submits that $1.12 million of the REI projects should be funded as part of the Toronto Hydro rate base, and $17.48 million of the REI projects should be funded through the provincial pool.

[310] Exhibit 1B, Tab 5, Schedule 1, Table 7 at page 10; Exhibit 2A, Tab 6, Schedule 1, Section 3 at page 4, Tables corrected in J4.9.
[311] Reference Exhibit 2A, Tab 6, Schedule 1 for details on Toronto Hydro's proposed REI investments.
[312] Ontario Energy Board Filing Requirements for Electricity Rate Applications – 2018 Edition for 2019 Rate Applications, Chapter 2 (July 12, 2018) at s. 2.2.2.7.

4.0 LOAD AND OTHER REVENUE FORECAST

4.1 Is Toronto Hydro's 2020-2024 load forecast reasonable?

149. Toronto Hydro submits that the 2020-2024 load forecast is reasonable, that it should be the basis to set 2020 base rates, and that it should be used to determine the growth ("g") factor in the proposed Custom Price Cap Index ("CPCI") for the 2021-2024 period.

150. Toronto Hydro's forecast is reasonable because: (i) it prepared the forecast[313] using a robust approach consistent with the Filing Requirements[314] and historical experience; and (ii) historical results demonstrate that Toronto Hydro's forecasting approach produces accurate and reliable results.

Toronto Hydro used a robust approach to prepare the 2020-2024 load forecast.

151. Toronto Hydro used a robust approach to prepare the 2020-2024 load forecast. The evidence provides the underlying data and explains the methodologies used to develop the load forecast.[315]

- Toronto Hydro prepared the proposed load forecast according to the OEB's Filing Requirements[316] using multivariate regression load models that have been consistently used by Toronto Hydro since 2006.

- Toronto Hydro used extrapolation models to develop the forecast of new customers for each rate class, except the CSMUR rate class. The customer forecast for the CSMUR rate class was based on market knowledge of suite metering and multi-unit dwelling construction in Toronto.

152. Toronto Hydro updated the forecast on April 30, 2019 to reflect the most recent available historical information.[317]

Toronto Hydro's load forecast treatment of CDM complies with the OEB requirements.

153. The forecast explicitly accounts for CDM impact on load, as required by the OEB's CDM Guidelines.[318] Specifically, the models incorporate the latest information

[313] Exhibit U, Tab 3, Schedule 1 at page 1, Table 1 contains a summary of load and customer forecast for the 2013-2024 period.
[314] Filing Requirements for Electricity Distribution Rate Applications, Chapter 2 (July 12, 2018) at pages 22-28.
[315] Exhibit 3, Tab 1, Schedule 1 at page 3.
[316] Filing Requirements for Electricity Distribution Rate Applications – Chapter 2 (July 12, 2018) at pages 22-28.
[317] Exhibit U, Tab 3, Schedule 1, Appendices A to G.
[318] EB-2012-0003, Ontario Energy Board, Guidelines for Electricity Distributor Conservation and Demand Management (April 26, 2012) at page 11.

related to actual IESO-verified CDM savings to the end of 2017, and non-verified 2018 results. For the 2019-2020 forecast period, the CDM savings included in the forecast are based on the latest CDM plan submitted to the IESO.[319]

154. The forecast was prepared prior to the recent announcements regarding the discontinuation of certain CDM programs in the province. However, Toronto Hydro analyzed the impact of those discontinuations and determined that any impacts will be minor. Specifically, the impact is well within the margin of error of the models.[320]

Historical results show that Toronto Hydro's forecasts are reasonable.

155. Toronto Hydro used the same approach to develop the 2020-2024 forecast as it used to develop the 2015-2019 load forecast, which the OEB accepted as filed in the last rebasing application.[321]

156. In fact, the actual load and customer count experience to date (2015 to 2018) corresponds very closely to the OEB-accepted forecast. [322] This validates Toronto Hydro's forecasting approach as one that produces accurate and reliable results.

4.2 Are Toronto Hydro's 2020 other revenue and shared services forecasts reasonable?

Toronto Hydro's 2020 Other Revenue forecasts are reasonable.

157. Toronto Hydro submits that the 2020 Other Revenue forecast of $47.1 million is reasonable and should be accepted.[323]

158. Toronto Hydro's rate calculations appropriately subtract this amount from the 2020 revenue requirement calculation, which reduces the costs to be recovered through distribution rates.[324]

[319] Exhibit U, Tab 3, Schedule 1, Appendix B.
[320] OH Volume 6 (July 8, 2019) at page 137.
[321] Exhibit 3, Tab 1, Schedule 1 at page 3; EB-2014-0116, Ontario Energy Board, Decision and Order (December 29, 2015) at pages 39-40.
[322] J8.7.
[323] U-VECC-83, Appendix A.
[324] Exhibit U, Tab 6, Schedule 1 at page 1, Table 1; subject to the updated figures in U-VECC-83 and any other revenue requirement updates to be made during the Draft Rate Order process. See also J1.2.

159. Toronto Hydro's request is supported by detailed evidence of the historical and forecasted sources and amounts of revenue that Toronto Hydro earns, which is not derived from distribution rates.[325]

Toronto Hydro's 2020 shared services forecasts are reasonable.

160. As part of the Other Revenue evidence, Toronto Hydro reported and correctly incorporated recoveries for shared services that the utility provides to its affiliates, as well as corporate cost allocations for non-rate regulated business activities such as distributor-owned generation.[326]

161. Similarly, Toronto Hydro also reported and correctly incorporated the calculations for shared services it obtains from affiliates.[327] The costs of shared services are embedded in various operational programs.[328] A granular breakdown of each service by year was updated to reflect 2018 actuals.[329]

162. Toronto Hydro's allocation methodology for shared services and corporate costs follows the OEB's requirements,[330] including the Affiliate Relationships Code.[331] The approach used to derive shared services costs and revenues remains unchanged from the utility's last rebasing application. [332]

[325] Exhibit 3, Tab 2, Schedule 1 at pages 1- 6; Exhibit U, Tab 3, Schedule 2 at pages 1-2; U-VECC-83, Appendix A.
[326] Exhibit 3, Tab 2, Schedule 1 at pages 3-6, and Schedule 2 at page 1; Exhibit 3, Tab 2, Schedule 1 at page 6, lines 1-5; Exhibit 4A, Tab 5, Schedule 1 at pages 1-7.
[327] Exhibit 4A, Tab 5, Schedules 1 and 2; Exhibit U, Tab 4A, Schedule 4.
[328] J8.9.
[329] Exhibit U, Tab 4A, Schedule 4, Appendix A at pages 1-7.
[330] Filing Requirements for Electricity Distribution Rate Applications – Chapter 2 (July 12, 2018) at pages 31-32.
[331] Affiliate Relationship Code for Electricity Distributors and Transmitters (March 15, 2010).
[332] Exhibit 4A, Tab 5, Schedule 1 at page 2, lines 9-10.

5.0 OPERATIONS, MAINTENANCE AND ADMINISTRATION (OM&A) COSTS, DEPRECIATION EXPENSES AND PAYMENTS IN LIEU OF TAXES (PILS) AMOUNTS

5.1 Is the level of proposed 2020 OM&A expenditures appropriate and is the rationale for planning choices appropriate and adequately explained?

163. Toronto Hydro's proposed 2020 OM&A expenditures of $278.2 million[333] are appropriate. The rates that support this level of funding are the minimum that Toronto Hydro requires to maintain safety, reliability and customer service outcomes, continue to operate effectively, and comply with all the legal and regulatory requirements.

164. Toronto Hydro's proposed OM&A expenditures balance the service customers want and need with what they are willing to pay. The expenditures were determined through a robust business planning process that has been enhanced and improved since Toronto Hydro's last rate application, including to better take account customer input.[334] Along with detailed evidence on Toronto Hydro's OM&A programs, the planning evidence demonstrates that: (i) Toronto Hydro needs the proposed OM&A expenditures to deliver on outcomes that matter to customers, and (ii) the OM&A plan provides an appropriate value proposition that is aligned with customer feedback.

165. Toronto Hydro's proposed level of 2020 OM&A funding reflects a reasonable increase from the utility's last rebasing application: approximately 1% annual growth rate, when adjusted for customer count and accounting changes.[335] In addition to the detailed evidence prepared by the utility, this proposed level of OM&A is supported by numerous third-party benchmarking analyses which show that Toronto Hydro is a good cost performer relative to its peers on a variety of metrics (e.g. compensation and benefits).[336] Particularly in light of the general and specific cost pressures that Toronto Hydro faces,[337] the results of the benchmarking analyses also demonstrate the utility's ongoing commitment to productivity and efficiency – a commitment that will persist throughout Toronto Hydro's execution of its 2020 to 2024 plan.

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[333] Inclusive of the changes identified in Exhibit U, Tab 4A, Schedule 1 at pages 1-2 and Exhibit 4A, Tab 2, Schedule 18, Appendix A (updated July 31, 2019).
[334] As described in Issue 1.1, this included engaging customers prior to starting the planning process to determine what outcomes they value, and how they felt that Toronto Hydro should balance competing outcomes (e.g. price and service).
[335] Please see paragraphs 175 and 176 of this Argument.
[336] Please refer to Issue 2.1 and Appendix A for more information about benchmarking analyses.
[337] For example, see 3-AMPCO-68.

The proposed OM&A expenditures represent the minimum level of funding necessary to sustain utility performance in accordance with customer expectations.

166. The OM&A evidence is comprehensive and demonstrates that the proposed expenditures in each program are necessary to maintain the ongoing performance of the utility. Toronto Hydro's 2020 OM&A programs are a continuation of the programs and activities carried out during the 2015 to 2019 plan.

167. Toronto Hydro's OM&A funding request is the aggregation of the expenditures necessary to enable 13 Operations and Maintenance programs, and 5 Administration programs that support the safe and reliable operation of the distribution system,[338] deliver essential services that customers expect to receive,[339] and provide key functions which allow utility to operate in a financially responsible and legally compliant manner.[340]

168. Toronto Hydro's proposed level of overall OM&A expenditures and the 18 component programs are a necessary continuation of the utility's 2015-2019 OM&A plan. While Toronto Hydro's proposed plan continues the historic work that provides value to customers, Toronto Hydro engaged in an exhaustive process to re-examine every program and its corresponding expenditure levels to minimize costs and maximize the value proposition for customers.[341] In the course of the business planning process, Toronto Hydro reduced its proposed OM&A budget by approximately $25 million, taking into account customer feedback to keep prices as low as possible without compromising current service levels.[342]

169. Each OM&A program is supported by detailed and rigorous evidence. This evidence describes the scope of the program, its functions within the utility's operations, the outcomes and measures that are advanced by the program, and historical and forecast cost information for 2015-2020, including a breakdown of cost drivers, cost control and productivity measures, and cost variance analysis.[343]

170. Toronto Hydro's proposed level of OM&A is necessary to maintain the ongoing performance of the utility in accordance with customer expectations.[344] Any reduction in the effective OM&A funding supported by rates will compromise

[338] Exhibit 4A, Tab 2, Schedules 1-13, 15, and 17.
[339] Exhibit 4A, Tab 2, Schedules 1, 5-9, 14, 17, and 18.
[340] Exhibit 4A, Tab 2, Schedules 5, 7, and 9-18.
[341] 1B-SEC-5 at page 1, lines 25-26 and page 2, lines 1-5 and 13-21.
[342] 1B-SEC-5 at page 1, lines 25-26 and page 2, lines 1-5 and 13-21.
[343] The OM&A programs are found in Exhibit 4A, Tab 2 and also addressed in Exhibit U, Tab 4A.
[344] Exhibit 4A, Tab 1, Schedule 1 at page 3, lines 2-19 and page 4, lines 1-21.

Toronto Hydro's ability to continue to deliver the current level of service that customers are satisfied with, and expect going forward.[345]

171. Toronto Hydro achieved an optimal balance in its OM&A expenditures in part through imposing top-down constraints on the plan. The plan is the output of the enhanced business planning process that Toronto Hydro undertook in preparing this application, which included the OM&A budget limit and the cap on distribution rate increases.[346] Working within these strategic parameters, Toronto Hydro significantly reduced its 2020 OM&A funding request by approximately $25 million, while maintaining its firm commitment to delivering outcomes that customers value: safety, reliability, customer service, environment, policy responsiveness and financial performance.[347]

The OM&A expenditure plan reflects an optimal balance between utility requirements and customer needs and preferences.

172. Toronto Hydro achieved balance between utility requirements and customer needs and preferences through trade-offs. This meant imposing constraints on the plan, which included addressing: customers' needs and priorities (e.g. keeping prices as low as possible without compromising current service levels),[348] operational needs (e.g. requirements relating to asset investment,[349] asset maintenance,[350] and staffing),[351]and legislative and regulatory obligations (e.g. billing requirements,[352] work safety obligations under the *Occupational Health and Safety Act*)[353].

173. Achieving this balance resulted in a restrained OM&A plan, but one that nevertheless requires incremental funding to maintain service quality and system performance. This plan advances the objectives of the RRF by delivering outcomes that customers value, and it is supported by and aligned with customers' needs and priorities, as determined through the two-phase customer engagement process, which is further discussed in Issue 1.1.

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[345] Exhibit 1B, Tab 3, Schedule 1 at page 6, lines 6-22; Exhibit 1B, Tab 3, Schedule 1, Appendix A; Exhibit 2B, Section E2 at pages 56-58; OH Volume 8 (July 11, 2019) at page 61, lines 18-28 and page 62, lines 1-8.
[346] Exhibit 1B, Tab 1, Schedule 1 at pages 6- 7 and 28-29; Exhibit 2B, Section E2 at page 2; 2B-SEC-47; 1B-CCC-9.
[347] Exhibit 4A, Tab 2, Schedule 4 at page 5, lines 5-9 and lines 17-19 and OH Volume 7 (July 9, 2019) at page 95, line 28 and page 96, lines 1-19; OH Volume 8 (July 11, 2019) at page 61, lines 9-17 and lines 21-28, at page 62, lines 1-22.
[348] Exhibit 4A, Tab 1, Schedule 1 at page 3, lines 3-6. See also Exhibit 1B, Tab 2, Schedule 1, Section 2.1.2 at pages 13-17 and Section 2.1.3 at pages 18-20.
[349] Exhibit 4A, Tab 2, Schedule 9, Section 5, "System Planning Segment" at pages 11-21.
[350] Exhibit 4A, Tab 2, Schedules 1-4.
[351] Exhibit 4A, Tab 4, Schedule 3.
[352] Exhibit 4A, Tab 2, Schedule 14 at page 5, lines 13-22.
[353] See e.g. Exhibit 2B, Section D3 at page 28, lines 8-11; Exhibit 2B, Section E6.3 at page 4, Table 2; Exhibit 4A, Tab 2, Schedule 11 at page 1, lines 21-22 and page 2, lines 1-4; Exhibit 4A, Tab 2, Schedule 12 at page 2, Table 2.

Toronto Hydro's proposed OM&A costs are reasonable.

174. Toronto Hydro's 2020 OM&A forecast expenditures of $278.2 million are reasonable.[354] All components of OM&A are supported by robust evidence that demonstrates the need and appropriateness of the expenditures. Further, the utility's 2020 OM&A forecast represents a 1% annual increase from the last rebasing year (2015), when adjusted for accounting changes and normalized for customer count. Despite mounting cost pressures (as described in further detail below), Toronto Hydro has continued to offset the cost pressures while delivering strong performance by achieving OM&A economies of scale through ongoing productivity.

175. Toronto Hydro's 2020 OM&A expenditures are forecast to increase by $34.2 million from 2015 actual/approved expenditures of approximately $244.0 million.[355] The compounded annual average increase in Toronto Hydro's OM&A from 2015 to 2020 is 1.9% when normalized for accounting changes that affect the comparability[356] of the previous rebasing year and the proposed test year.[357] 1.9% is below the city of Toronto inflation rate of 2.2% in the last five years.[358] The accounting changes are:

- the incremental net monthly billing costs, which were included in the Monthly Billing Deferral Account in 2015-2019, and are part of OM&A for 2020-2024;[359]
- proposal to change effective January 1, 2020 from cash to accrual method of accounting treatment of Other Post-Employment Benefit (OPEB) obligations;[360]
- IFRS changes in 2018 with respect to the treatment of contact voltage costs which were historically treated as a capital lease.[361]

176. From 2015 to 2020, the compound annual growth rate in OM&A per customer is 1.6%[362] and when taking the accounting changes into consideration, the growth rate is 1%.[363] Toronto Hydro's OM&A costs are significantly affected by the number of

[354] Includes changes identified in Exhibit U, Tab 4A, Schedule 1 at pages 1-2 and J1.2.
[355] Exhibit U, Tab 4A, Schedule 1, Appendix A (OEB Appendix 2-JA).
[356] J6.10 at page 1, lines 12-22 and Appendix A.
[357] OH Volume 6 (July 8, 2019) at page 52, lines 22-24; J6.10 at page 1, lines 12-17 and J6.10, Appendix A.
[358] 4A-AMPCO-71 at page 1, lines 16-21.
[359] Exhibit 4A, Tab 2, Schedule 14 at page 4-5, 12-13 and 16; Exhibit 9, Tab 1, Schedule 1 at pages 20-31.
[360] Exhibit 9, Tab 1, Schedule 1 at pages 33-34 and pages 42-43.
[361] Exhibit 4A, Tab 2, Schedule 2 at page 33, lines 7-22 and page 34, lines 1-9.
[362] Exhibit 4A, Tab 1, Schedule 1 at page 1, line 22.
[363] J6.10, Appendix A.

customers served by the utility, and it has experienced a large and significant growth in population in its service area.[364]

Strong cost benchmarking performance supports the reasonability of Toronto Hydro's 2020 OM&A expenditures.

177. Thorough benchmarking evidence filed in this proceeding demonstrates that the proposed OM&A expenditures are reasonable and necessary. Toronto Hydro is a strong cost performer as measured by multiple OM&A benchmarks.[365]

178. First, PEG and PSE both found that Toronto Hydro's OM&A per customer costs[366] are in line with the Ontario electricity industry benchmark.[367]

179. Second, Mercer Canada's review of Toronto Hydro compensation and benefits concluded that the utility's compensation costs are positioned at 50th percentile benchmark for the energy sector market. For management and professional positions, Toronto Hydro is below the 50th percentile benchmark compared to the general industry market.[368] The proposed OM&A funding is necessary to recruit and retain a workforce capable of operating the utility and serving its customers.[369]

180. Third, the Gartner IT Budget Assessment found that Toronto Hydro's actual (2017) and forecast (2020) IT costs (capital and OM&A) are lower than the peer group on various key IT metrics.[370] The proposed OM&A funding is necessary to achieve efficiencies through investments in technology and protect against cyber threats and other risks.[371]

181. Fourth, UMS Group concluded that Toronto Hydro's unit costs for the studied maintenance programs (Overhead and Underground) were in the second quartile when benchmarked against its peer group.[372] The proposed OM&A funding is necessary to keep the distribution system safe, avoid disruptions in service, and

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[364] Exhibit 1B, Tab 1, Schedule 1 at page 12, lines 4-20 and page 13, Figure 6.
[365] Please refer to Issue 2.2 and Appendix A for more information about benchmarking.
[366] Exhibit U, Tab 4A, Schedule 1, Appendix D. See also J6.10, Appendix A for normalized OM&A costs per customer.
[367] OH Volume 7 (July 9, 2019) at page 172, lines 11-19. See also e.g. OEB 2017 Yearbook of Electricity Distributors (August 23, 2018) at page 11 and pages 65-75.
[368] Exhibit 4A, Tab 4, Schedule 5 at page 1.
[369] Exhibit 4A, Tab 4, Schedule 3 at page 15, lines 11-14 and page 16, lines 1-2; Exhibit 4A, Tab 4, Schedule 4 at page 1, lines 20-21 page 2, lines 1-9, page 3, lines 16-25, page 4, lines 2-23, page 5, lines 1-25, page 6, lines 1-8 page 7, lines 1-20, page 8, lines 1-12 and 18-24, page 9, lines 10-20, and page 13, lines 10-25.
[370] Exhibit 2B, Section E8.4, Appendix A; Exhibit 1B, Tab 2, Schedule 1 at pages 25-26.
[371] Exhibit 4A, Tab 2, Schedule 17 at page 1, lines 6-10, pages 3-4, Table 2, page 4, lines 2-6, page 5, lines 1-25, page 6, lines 1-16, page 10, lines 11-24, page 11, lines 13-19, page 15, lines 5-8, page 18, lines 12-18, and page 22, lines 5-12.
[372] Exhibit 1B, Tab 2, Schedule 1 at page 24, Table 4; Exhibit 1B, Tab 2, Schedule 1, Appendix B. The referenced programs are Vegetation Management, Pole Test and Treat, Overhead Line Patrol, and Vault Inspection.

enable the choice of an O&M solution instead of capital expenditure where to do so is operationally sound and cost-effective.

Toronto Hydro's demonstrable commitment to productivity and efficiency, while overcoming cost pressures, further supports the reasonability of the 2020 OM&A.

182. Toronto Hydro's success in keeping OM&A per customer increases to 1% demonstrates that utility's persistent pursuit of cost efficiency and productivity is producing results that customers value.

183. One of the relentless challenges that Toronto Hydro faces in managing OM&A costs is operational circumstances and cost drivers that constantly put upwards pressure on Toronto Hydro's expenditures. These include:[373]

- general cost pressures associated with inflation in the City of Toronto, which is higher than the OEB's inflation rate;[374]
- wage increases in collective agreements[375] and market-based increases for non-unionized employees, necessary to attract and retain qualified employees;[376]
- requirements to address cyber security risks and maintain resilient software, which are driving increases in IT maintenance contracts;[377]
- retirements driving increases in areas such as Toronto Hydro's control center, where it can take up to six years to train apprentices;[378]
- extreme weather events driving emergency response and clean-up costs;[379]
- evolving legislative and regulatory requirements associated with public policy initiatives such as the Ontario Rebate for Electricity Consumers;[380]

[373] 3-AMPCO-68 at pages 1-4.
[374] 4A-AMPCO-71 at page 1, lines 19-21.
[375] OH Volume 4 (July 4, 2019) at page 175, lines 4-6; J4.11, Appendix A. The total compound growth 2018 to 2020 for total compensation (salary, wages, and benefits) is 3.4%.
[376] 1B-BOMA-46 at page 1, lines 16-19.
[377] OH Volume 5 (July 5, 2019) at page 127, lines 9-10 and lines 14-20.
[378] Exhibit 4A, Tab 4, Schedule 3 at page 18, lines 5-6, page 10, lines 1-21, and page 20, lines 1-2; Exhibit 4A, Tab 2, Schedule 7 at pages 8-11; 3-AMPCO-68 at page 2, lines 19-23 and page 3, lines 1-2.
[379] 3-AMPCO-68 at page 2, lines 1-10; Exhibit U, Tab 4A, Schedule 1 at page 3, lines 15-17 and page 4, lines 1-14.
[380] Exhibit 4A, Tab 2, Schedule 14 at page 5, lines 13-22.

- insurance premiums and deductibles, exchange rates and postage.[381]

184. To manage pervasive cost pressures and still deliver the high performance that customers expect, Toronto Hydro successfully and proactively enhanced operational efficiency.[382] Its numerous initiatives and recent successes during the 2015 to 2019 period are detailed throughout the evidence,[383] and build upon Toronto Hydro's historical success of achieving over $2.4 billion of productivity savings between 1998 and 2014.[384]

185. Toronto Hydro's control of OM&A costs is also demonstrated in the utility's prudent management of compensation costs, which make up approximately 46% of the overall OM&A budget.[385] The utility has constrained these costs by maintaining stable staffing levels[386] and market-based compensation levels.[387]

- Staffing levels have remained flat over the 2015-2019 period.[388] The utility expects a very modest increase of 2.3% in FTEs in the next rate period. This increase is necessary to secure the specific knowledge and talent that Toronto Hydro requires to meet current and future operational and customer requirements[389] and plan for upcoming retirements.[390] It is consistent with customer growth forecasts,[391] which is an important point of reference both from a cost-efficiency perspective, and as an objective indicator of an appropriate increase in FTEs.

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[381] 3-AMPCO-68 at page 1; Exhibit 4A, Tab 2, Schedule 14 at page 13, lines 5-11.
[382] J3.2; Exhibit 1B, Tab 2, Schedule 1 at page 20, lines 7-25 and page 21, lines 1-4; Exhibit 1B, Tab 2, Schedules 2-5; Evidence Overview Presentation Transcript (May 3, 2019) at page 8, lines 16-17.
[383] Exhibit 1B, Tab 2, Schedule 1 at pages 8-20; see also section 4.2 "Cost Control and Productivity Measures" in each OM&A program filed under Exhibit 4A, Tab 2.
[384] EB-2018-0165, Toronto Hydro, Distribution Rates Application Overview at page 21; Evidence Overview Presentation Transcript (May 3, 2019) at page 28, lines 27-28 and page 29, lines 1-6; OH Volume 7 (July 9, 2019) at page 167, lines 23-28; EB-2014-0116, Toronto Hydro, Exhibit 1B, Tab 2, Schedule 5, Appendix A.
[385] Comparing the total 2020 compensation costs from J5.4, Appendix A to total 2020 OM&A, inclusive of the changes identified in Exhibit U, Tab 4A, Schedule 1 at pages 1-2 and Exhibit 4A, Tab 2, Schedule 18, Appendix A (updated July 31, 2019), using the ratio of compensation costs allocated to OM&A, as shown in 4A-SEC-87(c) at page 3, Table 1.
[386] J5.4, Appendix A.
[387] Exhibit 4A, Tab 4, Schedule 1 at page 6, lines 2-5 and 19-23; Exhibit 4A, Tab 4, Schedule 4 at page 2, lines 7-11, page 4, lines 1-23, page 5, lines 1-14, page 8, lines 14-16, page 10, lines 8-14, page 11, lines 9-14, page 12, lines 19-25, and page 13, lines 1-15.
[388] J5.4, Appendix A.
[389] Exhibit 4A, Tab 4, Schedule 3 at page 2, lines 2-4.
[390] Exhibit 4A, Tab 4, Schedule 3 at page 2, lines 7-10 and 19-26, and Section 4 "Aging Workforce Challenge" at pages 12-21.
[391] Exhibit 1B, Tab 1, Schedule 1 at page 12, lines 4-20 and page 13, Figure 6; Exhibit U, Tab 3, Schedule 1 at page 1, Table 1. Customer count is forecasted to increase by approximately 4.5% during the 2020-2024 period, based on the updated customer count totals in Exhibit U, Tab 3, Schedule 1, Table 1. See also Exhibit U, Tab 3, Schedule 1, Table 4 and Appendix A (OEB Appendix 2-IB) for customer count forecasts by rate class.

- **Market-based compensation is required** to attract, develop, and retain a highly skilled, responsive, and adaptable workforce. Toronto Hydro's compensation are generally at or below the market median.[392] By compensating employees within the market-based range, Toronto Hydro aligns the behaviour and performance of the workforce with the needs of the utility and its customers, while also limiting the costs of compensation.[393]

186. In addition to enabling Toronto Hydro to operate within the funding constraints of its OEB-approved 2015-2019 rate framework, Toronto Hydro's productivity initiatives reduce the incremental OM&A funding needed in the 2020-2024 period.[394] For example, through the replacement of the legacy Enterprise Resource Planning ("ERP"), Toronto Hydro was able to reduce its 2020 OM&A on a sustained basis by $1.6M to reflected expected cost savings in the Finance and IT programs.[395]

187. In the 2020-2024 rate framework proposed by Toronto Hydro, the utility bears all the risk of achieving productivity.[396] That framework limits OM&A funding increases to amounts significantly less than inflation in 4 of the 5 years. This simultaneously forces Toronto Hydro to achieve efficiencies, and insulates customers from the cost pressures that the utility faces. Customers receive the upfront, guaranteed productivity benefits through rates set using the CPCI formula at the start of each year. The utility bears the burden of achieving that stretch requirement for productivity during the year, notwithstanding the countervailing, beyond inflation, cost pressures.[397]

5.2 Are Toronto Hydro's proposed depreciation expenses (including decommissioning provision and derecognition) for 2020-2024 appropriate?

188. The proposed depreciation expenses (including decommissioning provision and derecognition) for 2020-2024 are appropriate and should be accepted. The request

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[392] Mercer Canada, "Non-Executive Compensation and Benefits Review" (January 2018), Exhibit 4A, Tab 4, Schedule 5.
[393] Exhibit 4A, Tab 4, Schedule 4 at page 3, lines 16-25, page 4, lines 1-17, page 5, lines 1-25, page 6, lines 1-4, page 8, lines 6-24, page 10-16, and page 12, lines 19-21.
[394] OH Volume 6, (July 9, 2019) at page 52, lines 10-27; OH Volume 8 (July 11, 2019) at page 61, lines 9-17 and lines 21-28, at page 62, lines 1-22.
[395] J5.8, Appendix A; JTC 3.4 at page 2, lines 17-27 and page 3, lines 1-9.
[396] Please refer to Issue 2.1 for more information about the proposed rate framework.
[397] Exhibit 1B, Tab 4, Schedule 1 at pages 3-7; 1B-CCC-14; OH Volume 6 (July 8, 2019) at page 95, lines 4-28, page 96, lines 1-3, and page 97, lines 4-12; OH Volume 7 (July 9, 2019) at page 79, lines 3-19, page 87, lines 19-25, page 140, lines 25-28, page 141, lines 1-5, page 152, lines 8-18, page 167, lines 19-28, page 168, lines 1-13 and 16-24, page 169, lines 5-28, and page 170, lines 1-14; OH Volume 8 (July 11, 2019) at page 68, lines 18-28, page 69, lines 1-28, page 70, lines 1-5, page 74, lines 23-28, and page 75, lines 1-21.

is supported by the evidence in Exhibit 4B, Exhibit U, Tab 4B and related interrogatories and undertakings.[398]

- The evidence provides a comprehensive breakdown of the historical and forecast depreciation expense for each asset category from 2015 to 2024.
- Furthermore, the evidence demonstrates that the methodologies that Toronto Hydro uses to calculate depreciation expenses are appropriate.[399]

The proposed 2020-2024 depreciation expenses are appropriately calculated.

189. Toronto Hydro followed accounting requirements and the methodologies approved by the OEB in the utility's previous applications to calculate depreciation expenses.

Toronto Hydro's asset service lives are appropriate.

190. Toronto Hydro depreciates and amortizes its assets on a straight-line basis over the estimated service life of the asset, in accordance with the OEB's Accounting Procedures Handbook for Electricity Distributors (the "APH").[400] The asset service lives are based on the 2009 Kinectrics study (the "Kinectrics Study"),[401] which was completed in August 2009 prior to the issuance of the OEB-sponsored Asset Depreciation Study by Kinectrics.

Toronto Hydro's depreciation policy is appropriate.

191. Toronto Hydro annually reviews its asset depreciation and amortization rates to ensure that they remain appropriate. The utility has not made any material changes to its policies or practices since the last rebasing application, and does not expect to make any material changes in the next rate period.[402]

192. Depreciation expenses are based on the month that an asset comes into service, is fully depreciated, or is retired from service. This approach complies with IFRS requirements for external reporting, and ensures consistency in the calculation of depreciation expense for rate-making and financial external reporting purposes.[403]

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[398] Exhibit 4B, Tab 1, Schedules 1-2; Exhibit U, Tab 4B, Schedule 1; 4B-Staff-139; 4B-Staff-141; 9-Staff-156.
[399] Exhibit U, Tab 4B, Schedule 1; U-Staff-166.14, Table 1; U-Staff-168 at page 5, Table 4.
[400] Exhibit 4B, Tab 1, Schedule 1 at page 2, lines 8-10.
[401] Report: K-418021-RA-0001-R0002, Toronto Hydro-Electric System Useful Life of Assets (August 28, 2009). Provided in 2B-SEC-38, Appendix A.
[402] Exhibit 4B, Tab 1, Schedule 1 at page 2, lines 15-18.
[403] Exhibit 4B, Tab 1, Schedule 1 at page 3, lines 12-15 and page 4, lines 1-8.

Toronto Hydro's depreciation expense includes appropriate decommissioning provisions.

193. Toronto Hydro's depreciation expense includes decommissioning provisions, which are consistent with OEB requirements and should be approved as requested.[404]

194. Toronto Hydro recognizes liabilities for the future removal and handling costs for contamination in distribution equipment and for the future environmental remediation of certain properties ("decommissioning provisions") in accordance with Article 410 of the Accounting Procedures Handbook.[405]

Toronto Hydro's derecognition expenses are appropriate.

195. Toronto's historical and forecast depreciation expense includes asset derecognition costs.[406] Toronto Hydro submits that the derecognition costs are appropriately calculated and should be approved as requested.

196. In accordance with IFRS requirements, Toronto Hydro derecognizes assets when they are disposed of or no longer providing future economic benefits. Under modified IFRS, gains or losses arising from derecognition of assets are required to be recorded as a depreciation expense during the period in which the asset is derecognized.[407] Generally, the derecognition expense reflects an asset's residual net book value at the time it is taken out of service.[408]

197. Toronto Hydro's 2020 derecognition forecast is based on the historical relationship between derecognition expense and capital expenditures. This approach is supported by the 2015 to 2018 results which show a relatively consistent relationship between derecognition costs and capital expenditures.[409]

198. In the last rebasing application, the OEB approved a symmetrical variance account to record costs associated with derecognition of assets as a result of accounting treatment under IFRS.[410] As noted in Issue 8.3, Toronto Hydro requests a continuation of this account to track derecognition expense variances over the 2020-2024 period.

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[404] Filing Requirements for Electricity Distribution Rate Applications – Chapter 2 (July 12, 2018), at pages 15-16 and 34-35.
[405] Accounting Procedures Handbook for Electricity Distributors (December 2011) at pages 18-21.
[406] Exhibit U, Tab 4B, Schedule 1 at page 3, lines 1-11 and Table 4.
[407] Exhibit 4B, Tab 1, Schedule 2 at page 1, lines 3-12.
[408] Exhibit 4B, Tab 1, Schedule 2 at page 1, lines 3-19.
[409] 4B-Staff-141 at page 1, lines 19-26 and page 2, lines 1-6 and Table 1.
[410] EB-2014-0116, Decision and Order (December 29, 2015) at pages 50-51.

199. Toronto Hydro expects variances in derecognition actual balances compared to forecasted balances throughout the 2020-2024 period. These variances are expected to be of a similar nature as during the 2015-2019 period, primary driven by variation in timing and mix of both externally driven projects and the forecasted asset renewal projects due to factors such as weather, operational considerations, coordination with third parties and work scheduling logistics.[411]

5.3 Are Toronto Hydro's proposed PILs and other tax amounts for 2020-2024 appropriate?

200. Toronto Hydro submits that the proposed Payments in Lieu of Taxes ("PILs") and other tax amounts for 2020-2024 are appropriate and should be approved.

201. The request is supported by the evidence in Exhibit 4B, Tab 2 and Exhibit U, Tab 4B, Schedule 2, and the related interrogatories and undertakings.[412]

- The evidence provides a comprehensive breakdown of the historical and forecast PILS from 2015 to 2024.[413]
- Furthermore, the evidence demonstrates that the methodologies that Toronto Hydro uses to calculate PILS and other tax amounts appropriate.[414]

The proposed 2020-2024 PILS and other tax amounts have been appropriately calculated.

202. Toronto Hydro followed applicable tax rules and legislation and the OEB's Filing Requirements to determine the PILS for 2020-2024. The approach included applying the reduced capital cost allowance ("CCA") rates proposed as part of Bill C-97.[415]

203. Toronto Hydro manages its tax costs diligently in an effort to keep the effective rate of tax as low as possible, and minimize bill impacts. Accordingly, Toronto Hydro's PILS forecasts includes available tax deductions and tax credits, such as research and development tax credits.[416]

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[411] Exhibit 4B, Tab 1, Schedule 2 at page 1, lines 23-24 and page 2, lines 1-21; 9-Staff-156(a) at page 2, lines 2-10.
[412] U-Staff-188; 4B-Staff-142; 9-Staff-156(e).
[413] Exhibit U, Tab 4B, Schedule 2 at page 1, Table 1; 4B-Staff-142, Appendix B; 9-Staff-156(e); U-Staff-188(b), (e) and Appendix A.
[414] Exhibit U, Tab 4B, Schedule 2; U-Staff-166.14 at page 1, Table 1; U-Staff-168 at page 5, Table 4.
[415] Exhibit 4B, Tab 2, Schedule 1 at page 2, lines 19-25; U-Staff-188.
[416] Exhibit 4B, Tab 2, Schedule 1 at page 2, lines 12-17.

204. Toronto Hydro's methodology for calculating PILS is consistent with the principles set out in Chapter 2 of the OEB's Filing Requirements.[417] Toronto Hydro analyzes the nature of the assets resulting from the forecasted capital expenditures (i.e. the forecasted in service assets) to determine the appropriate CCA classes for tax purposes.[418]

205. Other than the minor changes described in pre-filed evidence[419] and the changes related to Bill C-97,[420] Toronto Hydro's approach is consistent with the approach that the utility used in the last rebasing application.

[417] Filing Requirements for Electricity Distribution Rate Applications – Chapter 2 (July 12, 2018) at pages 35-36.
[418] J6.12.
[419] Exhibit 4B, Tab 2, Schedules 1-2.
[420] U-Staff-188.

6.0 COST OF CAPITAL

6.1 Are Toronto Hydro's proposed 2020-2024 cost of capital amount (interest on debt and return on equity) appropriate?

206. Toronto Hydro submits that its proposal for cost of capital is appropriate. It adheres to the OEB cost of capital policy (the "Policy"), and appropriately funds prudently incurred costs.

Toronto Hydro's 2020-2024 cost of capital adheres to the OEB's policy.

207. As recently as November 2018, the OEB has been clear that the Policy and parameters associated with it apply to CIR applicants.[421] The Policy[422] was established by the OEB in 2009 after a thorough review of expert evidence and stakeholder feedback. Toronto Hydro and its providers of debt and equity, as well as other utilities and their stakeholders, have relied on that policy for a decade. In concluding its 2015-2016 cost of capital review, the OEB recognized "the significance of stable, predictable, and well understood rate-setting policies." [423]

208. In keeping with the Policy, Toronto Hydro has proposed as part of its plan a capital structure of 60% debt and 40% equity to remain consistent with the capital structure.[424] Indeed, during the last rate period, Toronto Hydro took steps to ensure that it remained consistent with this capital structure, including by temporarily suspending the dividend to its shareholder and receiving from its shareholder a $250 million equity injection.[425] Also pursuant to OEB policy and the OEB's decision in Toronto Hydro's last rebasing proceeding, Toronto Hydro proposed that the capital structure be set for the full five year period.[426]

Toronto Hydro's cost of capital proposal appropriately funds the prudently incurred costs of debt and equity.

209. Toronto Hydro submits that the fair return standard is the correct frame of reference for the OEB to quantify the cost of the return on equity that needs to be

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[421] OEB Decision on 2019 Cost of Capital Parameters (November 22, 2018).
[422] EB-2009-0084, Ontario Energy Board, Report of the Board on the Cost of Capital for Ontario's Regulated Utilities (December 11, 2009) at page 2.
[423] EB-2009-0084, Cover Letter re: OEB Staff Report: Review of the Cost of Capital for Ontario's Regulated Utilities (January 14, 2016).
[424] OEB Decision on 2019 Cost of Capital Parameters (November 22, 2018); Exhibit 5, Tab 1, Schedule 1 at page 1, lines 7-13.
[425] 1C-Staff-48(h) at page 5, lines 12-21 and page 6, lines 1-5.
[426] EB-2014-0116, Decision and Order (December 29, 2015) at pages 36-37; Handbook for Utility Rate Applications (October 13, 2016) at page 26.

funded.[427] The forecasted Return on Equity ("ROE") for the 2020 test year is based on the OEB's methodology. Consistent with general OEB practice, Toronto Hydro proposes to update the proposed ROE with the most recently available cost of capital parameters published by the OEB prior to the conclusion of the Draft Rate Order process.

210. Toronto Hydro submits that its calculation of the cost of debt is appropriate. Toronto Hydro applies the weighted average debt rates in its actual cost of capital, rather than applying the OEB's deemed debt rate. Toronto Hydro takes this approach because the actual debt rates are based on market forces,[428] whereby lower borrowing costs are available to Toronto Hydro and its ratepayers as a result of the strong credit ratings[429] and favourable rates assigned by the utility's parent company.[430]

[427] EB-2009-0084, Report of the Board on the Cost of Capital for Ontario's Regulated Utilities (December 11, 2009) at page 20.
[428] Exhibit 5, Tab 1, Schedule 1 at page 6, line 9-10.
[429] Exhibit 1C, Tab 3, Schedule 8, Appendix A and B include the credit rating agency reports for the utility's parent company.
[430] 1C-Staff-48 at page 5, line 16-17

7.0 COST ALLOCATION AND RATE DESIGN

7.1 Are Toronto Hydro's cost allocation and revenue-to-cost ratio proposals appropriate?

Toronto Hydro's cost allocation among customer classes is appropriate.

211. Toronto Hydro submits that the proposed allocation of costs among customer classes is appropriate, was uncontested in the proceeding, and should be accepted and applied by the OEB in setting distribution rates.

212. To determine 2020 base distribution rates, Toronto Hydro used the OEB's cost allocation model. This model reflects the OEB's current Street Lighting rate class cost allocation policy.[431] Toronto Hydro reviewed and updated all of the inputs to the model as part of the pre-filed evidence.[432] An updated cost allocation model was filed as part of the April 30, 2019 evidence update.[433]

Toronto Hydro's revenue-to-cost ratios are appropriate.

213. Toronto Hydro submits that the proposed revenue-to-cost ratios are appropriate and should be accepted and applied by the OEB in setting distribution rates.

214. Toronto Hydro followed OEB policy in calculating the revenue-to-cost ratios. The evidence compares the revenue to cost ratios before rate design with the OEB's guideline ranges for each class,[434] and explains changes in 2020 ratios relative to 2015 ratios.[435]

215. Where the results of the calculations were outside of the OEB-established ranges, Toronto Hydro was prudent and objective in making the adjustments necessary to bring all rate classes into the ranges.

216. With the exception of the Unmetered Scattered Load ("USL") rate class, the default revenue to cost ratios before rate design are within the OEB's guideline ranges.[436]

217. The USL rate class fell outside the OEB's guideline range primarily because of an update to a single cost allocation driver (i.e. the number of bills issued).[437] This

[431] EB-2012-0383, Issuance of New Cost Allocation Policy for Street Lighting Rate Class (June 12, 2015).
[432] Exhibit 7, Tab 1, Schedule 1 at page 2.
[433] Exhibit U, Tab 7, Schedule 1, Appendix A.
[434] Exhibit U, Tab 7, Schedule 1 at page 2, Table 1.
[435] 7-Staff-145; 7-CCC-45.
[436] EB-2010-0219, Review of Electricity Cost Allocation Policy (March 31, 2011).
[437] Exhibit U, Tab 7, Schedule 1 at page 1.

change had a material impact on the calculated revenue to cost ratio for the USL rate class.

218. Toronto Hydro proposed rate design changes for the USL class to bring the revenue-to-cost ratio within OEB guidelines.[438] The reallocation of revenue from adjusting the USL class is reasonable and consistent with the methodology approved in the last rebasing application.

7.2 Are Toronto Hydro's proposals for rate design (including, but not limited to fixed/variable split, loss factors, retail transmission service rates, specific and other service charges) appropriate?

Toronto Hydro's rate design proposals are appropriate.

219. Toronto Hydro submits that all elements of its proposed rate designs are appropriate and that the OEB should accept them in setting the proposed distribution rates.

Toronto Hydro's proposed fixed/variable splits are appropriate.

220. Toronto Hydro submits that the fixed/variable split rate designs it proposes are appropriate.

221. Toronto Hydro's methodology for calculating fixed/variable splits is consistent with the OEB methodology, which is the same methodology that Toronto Hydro used in its last rebasing application, and which was accepted by the OEB in that proceeding.

222. Toronto Hydro's rate design for the Residential and CSMUR classes reflects the OEB requirement to adopt fully fixed distribution rates for residential rate classes beginning in 2020.[439] For the remaining rate classes, the proposed fixed/variable splits as of 2020 are substantially the same as the 2015 approved splits.[440]

Toronto Hydro's proposed loss factors are appropriate.

223. Toronto Hydro submits that the loss factors it proposes are appropriate. They were uncontested in the proceeding.

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[438] Exhibit U, Tab 8, Schedule 1 at page 1.
[439] Exhibit 8, Tab 1, Schedule 1 at page 1; EB-2012-0410, Ontario Energy Board, A New Distribution Rate Design for Residential Electricity Customers (April 2, 2015).
[440] Exhibit 8, Tab 1, Schedule 1 at page 3.

224. In response to the OEB's direction in the last rebasing application,[441] Toronto Hydro retained an external firm to undertake an engineering study to estimate losses for its Large User (> 5000 kW) rate class. Pursuant to the results of that study, the proposed Distribution Loss Factor for the Large User class at is 1.0126.[442]

225. The loss factors for the remaining rate classes are estimated using the standard OEB methodology, which was also the basis for Toronto Hydro's proposal in its last rebasing application. Toronto Hydro used five years of commodity purchase (including embedded generation) and consumption data. This methodology results in the loss factor decreasing from 1.0376 to the proposed value of 1.0295.

Toronto Hydro's proposed Retail Transmission Service Rates are appropriate.

226. Toronto Hydro submits that the Retail Transmission Service Rates ("RTSRs") it proposes are appropriate. They were uncontested in the proceeding.

227. Toronto Hydro's proposed RTSRs are calculated using the OEB's standard methodology, which was also the basis for Toronto Hydro's proposal in its last rebasing application. The proposal is based on forecasted 2020 billing units and the current wholesale Uniform Transmission Rates ("UTRs"). Toronto Hydro proposes to update those RTSRs during the Draft Rate Order process based on the most recently set UTRs, in accordance with standard OEB practice.[443]

Toronto Hydro's proposed Specific Service Charges are appropriate and should be approved.

228. Toronto Hydro submits that its proposed Specific Service Charges, including the revisions to existing Specific Service Charges, are appropriate, and should be approved. They were not challenged during the proceeding.

229. Toronto Hydro's proposal reflects the updates approved by the OEB in its previous rebasing application.[444] Toronto Hydro proposes to leave these rates unchanged, with the exception of the Wireline Pole Attachment Rate and the Service Call – Customer Owned Equipment Charge.

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[441] EB-2014-0116, Ontario Energy Board, Decision and Order (December 29, 2015) at page 46.
[442] Exhibit 8, Tab 1, Schedule 1 at page 9; Exhibit 8, Tab 4, Schedule 2.
[443] Exhibit 8, Tab 1, Schedule 1 at page 7.
[444] EB-2014-0116, Ontario Energy Board, Decision and Order (December 29, 2015) at pages 45-46.

230. For the Wireline Pole Attachment Rate, Toronto Hydro proposes to adopt the recently established OEB policy[445] and have its Wireline Attachment Rate set on that basis, starting January 1, 2020.[446]

231. For the Service Call – Customer-Owned Equipment Charge, Toronto Hydro proposes to remove it from the Tariff of Rates and Charges. The scope of work that falls under this charge overly broad and has a high degree of cost variation. The utility proposes to recover the costs associated with these services through an at-cost or pass-through basis.[447]

232. Toronto Hydro proposes to also reflect any further changes flowing from the OEB's policy consultation on Customer Service Rules[448] will be reflected during the Draft Rate Order process.

7.3 Is Toronto Hydro's approach to cost responsibility for customer service charges under its conditions of service appropriate?

233. Toronto Hydro filed detailed evidence explaining all the changes that it has made to the Conditions of Service during the current rate period.[449] With the exception of Revision 18 (i.e. the person in attendance proposal),[450] Toronto Hydro did not receive any comments on proposed revisions during the current rate period.[451]

Toronto Hydro's approach to cost responsibility for customer service charges under its Conditions of Service is appropriate.

234. Toronto Hydro demonstrated through the filed evidence, and explanations provided during the Oral Hearing, that it approaches cost responsibility appropriately in its Conditions of Service. Those who cause the costs or benefit from the costs are assigned the costs. [452]

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[445] EB-2015-0304, Report of the Ontario Energy Board – Wireline Pole Attachment Charges (March 22, 2018).
[446] Exhibit 8, Tab 2, Schedule 1 at page 1, Table 1.
[447] 2006 Electricity Distribution Rate Handbook (May 11, 2005) at page 111, section 11.7 "Other Services and Charges".
[448] EB-2017-0183, Ontario Energy Board, Review of Customer Service Rules – Notice of Amendments to Codes and a Rule (March 14, 2019).
[449] 1A-CCC-6; 3-VECC-30; 4A-Staff-114; 8-Staff-148; JTC2.3; JTC4.26.2;
[450] 1A-CCC-6, Appendix E; 4A-GTAA-1; 4A-GTAA-3
[451] JTC2.3
[452] OH Volume 5 (July 5, 2019) at pages 139-141; TC Volume 1 (February 19, 2019) at page 139, lines 20-28 and page 140, lines 1-11; JTC2.4;

235. Pursuant to the Distribution System Code[453] and consistent with OEB rates policy at least as long-standing as the 2006 Rate Handbook,[454] Toronto Hydro and other distributors are authorized by the OEB to recover amounts invoiced on an at-cost or pass-through basis.[455] This policy framework provides Toronto Hydro with operational flexibility, which it relies on in serving customers.[456]

236. By comparison, OEB-approved rates and charges are utilized for customer requested services that are either defined through generic OEB policy, or upon request by Toronto Hydro in accordance with established OEB rules, such as the 2006 Rate Handbook.[457] Typically, this situation would apply to a standard service with a standard cost profile that is not a core distribution activity for which the cost is recovered in distribution rates.

237. Toronto Hydro submits that its approach is appropriate, compliant with OEB requirements, and consistent with OEB-accepted industry practice. No party led any evidence to the contrary.

Toronto Hydro's person in attendance policy is no longer a live issue in this proceeding.

238. With respect to the person in attendance proposal, Toronto Hydro confirmed at the Technical Conference and the Oral Hearing that it withdrew its proposal to amend the current policy of attending one vault entry per year at no charge, and that it does not have a plan to amend this policy.[458] As a result, this policy is no longer a live issue in this proceeding.

[453] Distribution System Code (issued July 14, 2000; last revised December 18, 2018); 8-Staff-148
[454] 2006 Electricity Distribution Rate Handbook (May 11, 2005)
[455] For example, see 2006 Electricity Distribution Rate Handbook (May 11, 2005) at page 111, section 11.7 "Other Services and Charges"
[456] OH Volume 2 (June 28, 2019) at page 28, lines 24-28 and page 29, lines 1-12; 4A-GTAA-8
[457] 2006 Electricity Distribution Rate Handbook (May 11, 2005); Exhibit 8, Tab 2, Schedule 1 at page 1
[458] J6.11; OH Volume 4 (July 4, 2019) at page 159, lines 24-28 and page 160, lines 4-10; OH Volume 6 (July 8, 2019) at page, lines 23-28 to page 56, line 12

8.0 ACCOUNTING AND DEFERRAL AND VARIANCE ACCOUNTS

8.1 Have the impacts of any changes in accounting standards, policies, estimates and adjustments been properly identified and recorded, and is the rate treatment of each of these impacts appropriate?

239. Toronto Hydro has properly identified and recorded impacts of changes in accounting standards, policies, estimates and adjustments. Toronto Hydro's proposed rate treatment of each of these impacts is appropriate.

240. Toronto Hydro's accounting standards, policies and practices comply with International Financial Reporting Standards ("IFRS") and OEB requirements, and are consistent with the Applicant's historical experience over the 2015 to 2019 period.

241. Toronto Hydro appropriately implemented three changes in accounting standards, which individually and collectively result in immaterial impacts to the revenue requirement. In addition, Toronto Hydro identified two accounting changes that impact the proposed 2020 OM&A expenditures.

242. Toronto Hydro has properly identified and recorded all changes, and proposes the appropriate rate treatment, as applicable. None of these changes were challenged during the proceeding. They should be approved as proposed.

All accounting changes have been properly identified and recorded.

243. Toronto Hydro adopted and applied three new accounting standards effective January 1, 2018, as required by the International Accounting Standards Board. The new standards are:[459]

- **IFRS Financial Instruments ("IFRS 9")** introduced new classification and measurement categories for financial assets, which impacts the measurement basis of the financial assets. This change does not impact revenue requirement.

- **IFRS Revenue from Contracts with Customers ("IFRS 15")** introduced a new model for customer contracts and new rules on the timing and measurement of revenue recognition. The change does not impact revenue requirement.

[459] Exhibit 1C, Tab 3, Schedule 1 at page 1, lines 19-23 and pages 2-3.

- **IFRS 16 Leases ("IFRS 16")** introduced changes to the financial treatment of leases. Lease payments for long-term leases are recorded as fixed assets (i.e. additions to property, plant, and equipment ("PP&E")) and depreciated over the lease term. Lease payments for short term leaves are recorded as operational expenses, as is the case for the contact voltage scanning costs which were previously capitalized and form part of OM&A expense starting in 2018.[460] The revenue requirement impact of this change is less than $0.1 million.[461]

244. In addition, as discussed in Issue 5.1, Toronto Hydro's application includes two other accounting changes that affect the proposed 2020 OM&A expenditures. These changes are:

- **Monthly Billing Costs**: The addition of $5.0 million[462] in net incremental costs that were accounted for in the Monthly Billing Deferral Account during the 2015-2019 rate period, but are properly accounted for in OM&A starting in 2020. This change in accounting treatment was not challenged during the proceeding.

- **OPEBs**: The reduction of $ 2.3 million[463] in Other Post-Employment Benefit (OPEB) obligations resulting from a change from the cash to the accrual method. This change in accounting treatment was also not challenged during the proceeding.

8.2 Are Toronto Hydro's proposals for the disposition of balances in existing deferral and variance accounts and other amounts appropriate?

245. The rate riders proposed by Toronto Hydro accurately reflected the balances in existing deferral and variance accounts ("DVAs") and other amounts proposed for clearance in this application, and should approved.

246. Toronto Hydro proposes to dispose of a credit balance of $172.2 million in its Group 2 Accounts as identified in Table 1 below and a credit balance of $8.2 million[464] in its Group 1 Accounts effective January 1, 2020. Additionally, Toronto Hydro proposes

[460] 4A-Staff-110.
[461] 1C-Staff-49(c) at page 2, lines 19-21.
[462] JTC4.8 at page 3, Table 2; J6.10, Appendix A.
[463] J6.10, Appendix A.
[464] Exhibit U, Tab 9, Schedule 1 at pages 11-12, Table 16.

to clear historical accounts receivable credits totaling $3.2 million through a rate rider.[465]

Summary of Proposed Dispositions for Group 2 Accounts ($ Millions)[466]

	Balances for clearance as at Dec 31, 2019
Stranded Meter Costs	(1.4)
IFRS-USGAAP Transitional PP&E Amounts	(1.6)
Impact for USGAAP Deferral[467]	17.2
CRRRVA[468]	(88.4)
Externally Driven Capital	(3.2)
Derecognition	(34.5)
Wireless Attachments	(0.6)
Monthly Billing	11.8
OCCP	(73.5)
OPEB Cash vs Accrual	8.1
Excess Expansion Deposits	(8.0)
Total Balance	**(174.0)**

Rounding differences may exist.

247. Toronto Hydro filed detailed evidence, including continuity schedules, for each DVA proposed for clearance in this application.[469] This evidence shows that the proposed clearances and resulting rate riders are appropriate.

248. Toronto Hydro's proposals follow the OEB's Report on Electricity Distributors' Deferral and Variance Account Review (the "EDDVAR Report"),[470] and only depart as necessary. The evidence explains and justifies all instances in which the Applicant has departed from the EDDVAR Report,[471] or provided specific assumptions (e.g. cost allocators) not contained within EDDVAR.[472] Toronto Hydro's decisions to depart from the EDDVAR Report, and the manner in which those deviations occurred, were not challenged in this proceeding.

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[465] Exhibit 8, Tab 1, Schedule 1 at page 11, lines 1-5 and 18-26.
[466] Exhibit U, Tab 9, Schedule 1 at page 12, Table 17
[467] This balance reflects the changes noted in U-Staff-193 at page 4, lines 16-24 and J1.2 at page 2, lines 2-10;
[468] This balance reflects the impact of Bill-C-197 noted in U-Staff-188 at page 5, Table 1 in line (c)
[469] Exhibit 9, Tab 1, Schedule 1; Exhibit 9, Tab 2, Schedule 1; Exhibit U, Tab 9, Schedule 1, including Appendix A.
[470] Ontario Energy Board, Report of the Board on Electricity Distributors' Deferral and Variance Account Review Initiative (EDDVAR) (July 31, 2009), Section 7 at pages 20-22.
[471] Exhibit 9, Tab 1, Schedule 1 at page 5, lines 3-16 and page 6, lines 1-2; 9-Staff-150(b) at page 3, lines 1-25 and page 4, lines 1-3.
[472] Exhibit 9, Tab 1, Schedule 1 at page 38, lines 7-11 and page 39, lines 1-5 and Table 18; 9-Staff-161 at pages 1 and 2, Table 1.

The rate riders proposed for the disposition of Group 1 DVAs are appropriate and should be approved on an interim basis pending the OEB Audit.

249. Toronto Hydro's proposed rate riders would dispose of Group 1 DVA balances as reflected in the audited financial statements for the fiscal year ended December 31, 2018.[473]

250. Toronto Hydro's Group 1 accounts are subject to an OEB Audit and therefore should be approved on an interim basis pending the completion of the OEB Audit.[474]

Toronto Hydro's proposal to clear the Group 2 account on the basis of forecasted 2019 balances is appropriate and should be approved.

251. With the exception of the Impact for USGAAP Deferral Account, Toronto Hydro proposes to clear the Group 2 accounts on the basis of the 2018 audited balances and forecasted 2019 balances.[475]

252. Although it departs from the EDDVAR Report, Toronto Hydro submits that the customer-centric proposal is appropriate and should be approved because it:

- provides ratepayers the immediate and full benefit of the proposed distribution rate reduction;
- improves regulatory efficiency by eliminating the need for an additional process to examine and clear the 2019 balances after the OEB renders its final decision in respect of this application; and,
- protects customers with respect to any variances.[476]

Toronto Hydro's proposed approach provides an immediate benefit to customers.

253. Toronto Hydro's proposal to clear the Group 2 accounts on the basis of forecasted 2019 balances provides customers the immediate benefit of a higher credit to reduce rates in 2020.[477] Deferring the clearance of the forecasted 2019 balances

[473] Exhibit U, Tab 9, Schedule 1 at pages 1, 3-13, and Appendices D and E. 2018 financial statements are provided in Exhibit U, Tab 1C, Schedule 2.
[474] EB-2018-0071, Ontario Energy Board, Toronto Hydro-Electric System Limited Application for Rates and Other Charges to be Effective January 1, 2019, Decision and Order (December 13, 2018) at pages 15-16.
[475] Exhibit U, Tab 9, Schedule 1 at page 12, Table 17; 9-Staff-150(a) at page 1, Table 1; JTC4.7 at page 1, Table 1.
[476] 9-Staff-150(b) at page 3, lines 1-25 and page 4, lines 1-3.
[477] Compare U-Staff-193 at page 3, Table 1 with J7.4, Appendix A.

would delay the receipt of this benefit, and result in customer bill impacts that are higher and avoidable.[478]

Toronto Hydro's proposed approach improves regulatory efficiency.

254. Toronto Hydro's proposal eliminates the need for an additional process to examine and clear the 2019 balances after the OEB renders its final decision in respect of this application. That examination would have to either take place in the next rebasing proceeding, or in context of the annual rate update application process. Toronto Hydro submits that both of these alternatives are less beneficial to customers.

- Deferring the clearance until the next rebasing would delay the rate reduction and create a large disconnect between the events that resulted in the credit owed to customers (i.e. performance of the 2015-2019 plan) and the return of the credit to those customers (i.e. intergenerational inequity).

- Deferring the clearance until the 2021 rates proceeding punts the issue to the annual rate setting process, which is not designed for such reviews, thus still departing from EDDVAR[479] but doing so in a way that creates incremental regulatory process.

Toronto Hydro's proposed approach protects customers and the utility with respect to capital related variances.

255. Toronto Hydro's proposal includes a true-up for the capital-related accounts (i.e. Capital Related Revenue Requirement Variance Account, Externally Driven Capital Variance Account and Derecognition Account) to protect customers and the utility with respect to any variances between the forecasted 2019 clearances and the actual 2019 amounts as reflected in the 2019 year-end audited balances. Specifically, Toronto Hydro proposes to:

- track variances between the approved forecasted 2019 clearances and the actual amounts in 2019 in the existing accounts, and dispose of these amounts in the 2021 rates update application;[480]

[478] U-Staff-191(a) at page 3, Table 3.
[479] Ontario Energy Board, Report of the Board on Electricity Distributors' Deferral and Variance Account Review Initiative (EDDVAR) (July 31, 2009), Section 7 at pages 20-22.
[480] 9-Staff-150(b) at page 3, lines 5-12; 9-Staff-150(c) at page 4, lines 5-7.

- open new capital related accounts to record the variances related to the execution of the 2020-2024 DSP in order to ensure full transparency and completeness with respect to capital-related variances in the next rate period.[481]

Toronto Hydro's proposed disposition of the Impact for USGAAP Deferral Account is appropriate and should be approved.

256. Toronto Hydro's request for clearance of the Impact for USGAAP Deferral Account should be approved. The utility's request is consistent with OEB policy and protects the financial interests of ratepayers and the utility.

257. In the Regulatory Treatment of Pension and Other Post-employment Benefits Report (the "OPEB Report"), the OEB acknowledges that utilities may apply for disposition of this account:[482]

> *"Utilities may propose disposition of the account in future cost-based rate proceedings if the gains and losses that are tracked in this account do not substantially offset over time. This matter was not the focus of this consultation and therefore, the OEB has not made a determination on a generic approach to the regulatory treatment of actuarial gains and losses under IFRS."*

258. Results over the past decade show that the balances in this deferral account have been significant and sustained since its inception in 2010.[483] These results demonstrate that despite some year over year volatility in the account, the gains and losses that are tracked in the account do not substantially offset over the time. Therefore, Toronto Hydro's request for clearance of this account meets the OEB's guidance in the OPEB Report passage referenced above.

259. Toronto Hydro seeks approval to clear a portion of the 2018 balance in the account over the 2020-2024 period using the employee average remaining service life ("EARSL") method. This proposal results in a clearance of approximately $17.2 million over the five-year period ending 2024.[484]

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[481] *Ibid*; TC Volume 4 at page 46, lines 12-28 and page 47, lines 1-16.
[482] EB-2015-0040, Report of the Ontario Energy Board – Regulatory Treatment of Pension and Other Post-employment Benefits (OPEBs) Costs (September 14, 2017) at page 13.
[483] U-STAFF-193, Page 3, Table 1
[484] U-STAFF-193 at page 4, lines 16-20; J1.2 at page 3, lines 6-8.

8.3 Are Toronto Hydro's proposals for the establishment of new accounts, closing of existing accounts or continuation of existing accounts appropriate?

260. Toronto Hydro's proposals to establish new accounts, continue existing accounts, and close existing accounts are appropriate and should be approved.

It is necessary to establish the proposed new accounts in order to protect the financial interests of ratepayers and the utility.

261. Toronto Hydro's evidence describes and justifies each new account proposed for the 2020-2024 period.[485] No party opposed the creation of these accounts during the proceeding. Toronto Hydro submits that the OEB should approve these new accounts:

- **A Variance Account for Excess Expansion Deposits:** Toronto Hydro needs this account to record excess expansion deposits and to clear the historical balance of $8.0 million[486] to ratepayers through an OEB-approved rate rider.[487]

- **Account 1522 Sub-account**: Pension & OPEB Forecast Accrual versus Actual Cash Payment Differential Carrying Charges: Toronto Hydro needs this account to comply with the OEB's direction in the OPEB Report. [488]

- **Account 1508 – Other Regulatory Assets, Subaccount – CRRRVA**. This is less a new account than a continuation of the account approved by the OEB in the utility's last rebasing application. Toronto Hydro needs the *asymmetrical* account for 2020-2024 period to: (i) protect customers against cumulative underspend during the plan period; (ii) recognize the dynamic nature of Toronto Hydro's capital program; and (iii) ensure that Toronto Hydro has the flexibility to optimize the implementation of its capital investment strategy.[489]

- **Account 1508 – Other Regulatory Assets, Subaccount – Externally Driven Capital Variance Account**: This is less a new account than a continuation of the account approved by the OEB in the utility's last rebasing application. Toronto Hydro needs the symmetrical account for the 2020-2024 period to

[485] Exhibit 9, Tab 1, Schedule 1 at pages 40-43.
[486] Exhibit U, Tab 9, Schedule 1 at page 11, lines 1-5 and Table 15.
[487] Exhibit 9, Tab 1, Schedule 1 at page 40, lines 12-24 and page 41, lines 1-16.
[488] Exhibit 9, Tab 1, Schedule 1 at page 42, lines 1-25 and page 43, lines 1-20.
[489] Exhibit 9, Tab 1, Schedule 1 at pages 10-14; Exhibit U, Tab 9, Schedule 1 at page 4, lines 12-19 and Table 4.

capture variances resulting from third-party initiated plant relocations and expansions. The nature and timing of this work is externally driven and therefore outside of the utility's control. A base amount of $46.1 million[490] is included in the 2020-2024 capital forecasts to reflect work that is reasonably expected to occur in the next rate period.[491] This account will track capital-related variances from the base amount.

- **Account 1508 – Other Regulatory Assets, Subaccount – Derecognition**: This is less a new account than a continuation of the account approved by the OEB in the utility's last rebasing application. Toronto Hydro needs the symmetrical account for the 2020-2024 period to capture variances resulting from planned to actual changes in derecognition of assets. Toronto Hydro's experience during the current rate period resulted in a credit of $34.5 million to customers.[492] This demonstrates the continued need for a variance account to ensure that ratepayers and the utility are held harmless from any variances in derecognition related expenses.[493]

It is necessary to continue the proposed accounts in order to protect the financial interests of ratepayers and the utility.

262. Toronto Hydro's evidence describes and justifies each account that it seeks to continue for 2020-2024 period.[494] No party opposed the continuation of these accounts. Toronto Hydro submits that the OEB should approve their continuation:

- **Account 1508 – Other Regulatory Assets, Subaccount – Impact for USGAAP Deferral Account**: The account needs to be continued to record the expected variances in actuarial gains or losses as a result of changes in actuarial assumptions in the future.[495]

- **Account 1508 – Other Regulatory Assets, Subaccount – CRRRVA**: The 2015-2019 CRRRVA account needs to be continued to protect ratepayers with respect to any variances between the approved forecasted 2019 balance and the actual audited balance in 2019. Once the 2019 variance is

[490] Exhibit 2B, Section E.5.2 at page 1, Table 1.
[491] Exhibit 9, Tab 1, Schedule 1 at pages 14-17; Exhibit U, Tab 9, Schedule 1 at page 6, lines 1-10 and Tables 5-6.
[492] Exhibit U, Tab 9, Schedule 1 at page 7, lines 2-9 and Table 7.
[493] Exhibit 9, Tab 1, Schedule 1 at pages 17-19.
[494] Exhibit 9, Tab 1, Schedule 1; 9-Staff-155; 9-Staff-156.
[495] Exhibit 9, Tab 1, Schedule 1 at pages 7-10; Exhibit U, Tab 9, Schedule 1 at page 4, lines 4-10.

recorded, the only other expected entries are for carrying charges, until the account is approved for disposition.[496]

- **Account 1508 – Other Regulatory Assets, Subaccount – Externally Driven Capital Variance Account**: The 2015-2019 account needs to be continued to protect ratepayers and the utility with respect to any variances between the approved forecasted 2019 balance and the actual audited balance in 2019. Once the 2019 variance is recorded, the only other expected entries are for carrying charges, until the account is approved for disposition.[497]

- **Account 1508 – Other Regulatory Assets, Subaccount – Derecognition Account**: The 2015-2019 accounts needs to be continued to protect ratepayers and the utility with respect to any variances between the approved forecasted 2019 balance and the actual audited balance in 2019. Once the 2019 variance is recorded, the only other expected entries are for carrying charges, until the account is approved for disposition.[498]

- **Account 1508 – Other Regulatory Assets, Subaccount – Wireless Attachments**: This account needs to be continued to capture ongoing variance associated with pole attachment costs and revenues.[499]

- **Account 1533 – Renewable Generation Connection Funding Adder Deferral Account, Sub-account Provincial Rate Protection Payment Variances**: This account needs to be continued to capture variances between revenue requirement associated with Renewable Enabling Improvements ("REI") funded through provincial rate protection and the revenue requirement based on actual REI investments.[500]

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[496] Exhibit 9, Tab 1, Schedule 1 at pages 10-14; Exhibit U, Tab 9, Schedule 1 at page 4, lines 12-19 and Table 4; 9-Staff-150(c) at page 4, lines 5-7.
[497] Exhibit 9, Tab 1, Schedule 1 at pages 14-17; Exhibit U, Tab 9, Schedule 1 at page 6, lines 1-8 and Tables 5-6; 9-Staff-150(c) at page 4, lines 5-7.
[498] Exhibit 9, Tab 1, Schedule 1 at pages 17-19; Exhibit U, Tab 9, Schedule 1 at page 7, lines 2-9 and Table 7; 9-Staff-150(c) at page 4, lines 5-7. 9-Staff-150(c) at page 4, lines 5-7.
[499] Exhibit 9, Tab 1, Schedule 1 at page 19, lines 6-21 and page 20, lines 1-8, including Table 7.
[500] Exhibit 9, Tab 1, Schedule 1 at page 34, lines 13-17 and page 35, lines 1-16, including Table 16; Exhibit U, Tab 9, Schedule 1 at page 10, lines 3-9 and Table 14.

It is appropriate to discontinue the proposed accounts as they are no longer needed.

263. Toronto Hydro proposes to discontinue the following accounts because they are now obsolete.[501] Toronto Hydro's proposal to do so was unchallenged during the proceeding.

- **Account 1508 – Other Regulatory Assets, Subaccount – OPEB Cash vs Accrual**: In accordance with the OEB's direction in the OPEB Report, Toronto Hydro proposes to revert back to the accrued method of accounting for OPEB, and therefore proposes to discontinue this account effective January 1, 2020.[502]

- **Stranded Meter Costs**: There are no residual balances associated with the OEB's Smart Meter Funding and Cost Recovery Guidelines, and no new entries to be made in the 2020-2024 period.

- **IRFS USGAAP Transitional PP&E amounts**: There are no residual amounts associated with this account, and no new entries to be made in the 2020-2024 period.

- **Monthly Billing Deferral Account:** Toronto Hydro proposes to discontinue this account as the implementation of monthly billing is complete.[503] The incremental net operational costs associated with monthly billing will be incorporated in OM&A expenditures effective January 1, 2020,[504] as noted above and discussed in Issue 5.1.

- **Operating Centers Consolidation Program (OCCP)**: Toronto Hydro proposes to discontinue this variance account as the OCCP initiative is now complete.[505]

[501] Exhibit 9, Tab 1, Schedule 1 at page 6, lines 6-24, page 7, lines 1-6, pages 20-34.
[502] EB-2014-0116, Draft Rate Order (February 29, 2016) Schedule 5, Section 8 at pages 12-13.
[503] Exhibit 9, Tab 1, Schedule 1 at pages 20-31.
[504] Exhibit 4A, Tab 2, Schedule 14 at page 4, lines 21-22, page 5, lines 1-3, page 13, lines 5-11 and page 16, lines 1-7; 4A-Staff-118(b) at page 2, lines 6-17; 9-Staff-157; JTC4.8; J6.10, Appendix A.
[505] Exhibit 1B, Tab 1, Schedule 1 at page 23, lines 12-18; Exhibit 2B, Section E4 at page 5, lines 15-27 and page 6, lines 1-8; Exhibit 4A, Tab 2, Schedule 12 at page 8, lines 21-23, page 9, lines 1-17, and page 10, lines 1-10.

APPENDIX A: THIRD PARTY REPORTS AND ASSESSMENTS

Toronto Hydro's application is supported by 21 external reports and assessments, which are summarized in this Appendix for ease of reference.

EXTERNAL BENCHMARKING REPORTS

1. The **"Econometric Benchmarking of Historical and Projected Total Cost and Reliability Levels"** report by Power System Engineering, Inc. ("PSE") benchmarked Toronto Hydro's historical and projected costs and reliability performance using an econometric benchmarking method. PSE found that Toronto Hydro's total cost forecast are 10% below the predicted benchmark for total costs,[1] and that reliability performance is better than the predicted benchmark in terms of the duration of outages (i.e. SAIDI), but worse than the benchmark with respect to the frequency of outages (i.e. SAIFI).[2] Toronto Hydro relies on this study to evaluate the reasonableness of its proposed revenue forecasts and to inform the appropriate stretch factor in the proposed CPCI framework.[3]

2. The **"Unit Cost Benchmarking Study"** by UMS Group benchmarked Toronto Hydro's capital construction and maintenance cost for major asset categories and maintenance programs. The results demonstrate that Toronto Hydro is a better than average cost performer on 10 of the 11 categories benchmarked. Furthermore, UMS Group found that the cost structures used by Toronto Hydro to collect and maintain capital unit cost information lay the groundwork for improving the quality of unit cost estimates and driving further productivity.[4]

3. The "**IT Budget Assessment**" by Gartner Consulting ("Gartner") benchmarked Toronto Hydro's IT costs against relevant peer groups. The results of the Gartner study show that Toronto Hydro's IT spending as a percentage of revenue and of operational expenses are both lower than the peer group for 2017 and 2020.[5]

4. The "**Non-Executive Compensation and Benefits Review**" by Mercer Canada Limited ("Mercer") provides a market review of compensation and benefits

[1] Exhibit 1B, Tab 4, Schedule 1 at page 7, lines 5-6; Exhibit 1B, Tab 4, Schedule 2 at pages 12-13.
[2] Exhibit 1B, Tab 4, Schedule 2 at pages 44-47.
[3] U-EP-64(b) at pages 3-7; U-SEC-105; Evidence Overview Presentation Transcript (May 3, 2019) at page 12, lines 20-23, page 22, lines 27-28, and page 23, lines 1-4; OH Volume 1 (June 27, 2019) at page 40, lines 6-7 and 10-11, from page 40, line 23 to page 42, line 4, and from page 101, line 24 to page 102, line 15; OH Volume 3 (July 3, 2019) from page 10, line 22 to page 11, line 8, page 11, lines 14-15, page 17, lines 10-12, and page 18, lines 11-14; OH Volume 4 (July 4, 2019) from page 131, line 19 to page 133, line 7.
[4] Exhibit 1B, Tab 2, Schedule 1, Appendix B at pages 7-8 and 16-17.
[5] Exhibit 2B, Section E8.4, Appendix A at pages 2 and 8.

program competitiveness for non-executive management, non-union professional and union positions within Toronto Hydro. Mercer's review concluded that Toronto Hydro's total compensation is within a market competitive range relative to the energy market benchmark and below the general industry market benchmark for applicable positions.[6]

5. The "**Jurisdictional Review and Economic Case for a Dual Distribution Control Centre in Toronto Hydro Territory**" by London Economics Inc. provides an independent study of comparator utilities with fully functional backup control center. The results show that a strong case exists for Toronto Hydro's proposed dual distribution control center based on various comparable factors. One of these factors is the critical importance of the load served by Toronto Hydro as the financial capital of Canada, and the significant costs associated with outages in the city of Toronto.[7]

6. The "**Distribution System Plan Asset Management Review**" by UMS Group provides an independent review of Toronto Hydro's asset management practices. The results show that Toronto Hydro exceeds the North American average level of maturity in all areas, has attained the level of best practices in some areas, and has adopted the principle of continuous improvement in the use of asset data to drive asset management decisions and improve operational effectiveness.[8]

7. The **2018 Update of the Standards Review** by PSE provides an independent review of Toronto Hydro's standard design and construction practices, major material specifications, and procedural standards processes. The results show that Toronto Hydro's revised standards were found to be thorough, well documented, and consistent with what is seen in the industry.[9]

THIRD-PARTY REPORTS AND ASSESSMENTS:

8. The **"Customer Engagement: 2020 CIR Application"** report by Innovative Research Group ("Innovative") provides an overview of the planning-specific customer engagement process that Toronto Hydro undertook to understand its customers' needs, preferences, and priorities so as to inform its 2020-2024 business plan.[10] As

[6] Exhibit 4A, Tab 4, Schedule 5 at page 1.
[7] Exhibit 2B, Section E8.1, Appendix A at pages 4, 21, and 27.
[8] Exhibit 2B, Section D1 at page 2, lines 15-23; Exhibit 2B, Section D, Appendix A at pages 5-7.
[9] Exhibit 2B, Section D, Appendix B at pages 10-11.
[10] Exhibit 1B, Tab 3, Schedule 1, Appendix A.

demonstrated in the evidence[11] and discussed in the Argument-in-Chief,[12] the customer feedback relayed by Innovative played a crucial role in Toronto Hydro's business planning and the development of Toronto Hydro's application.

9. The **Working Capital Requirements study (lead-lag study) by Navigant Consulting**, Inc. determined Toronto Hydro's revenue lags and expense leads for various detailed revenue and cost components. The results of the study demonstrated a decrease in Working Capital Allowance rate approved in the utility's last rebasing application from 8.0 percent of controllable expenses plus cost of power to 6.21 percent. Applying the lead/lag days to Toronto Hydro's forecast revenues and expenses yields a working capital allowance of 6.42 percent for the 2020 test year.[13]

10. The **Climate Change Vulnerability Assessment** by AECOM[14] identified areas of vulnerability to Toronto Hydro's infrastructure as a result of climate change. Following this study, Toronto Hydro developed a climate change adaptation road map and began various initiatives to enhance asset management practices, e.g.by utilizing climate data projections in equipment specifications and station load forecasting, analyzing potential impacts of climate change on assets and operational practices, and integrating efforts to increase system resiliency in 2020-2024 program activities.[15]

11. The "**Distribution System Loss Factors for the Large User (>5000 kW) Class**" study by Navigant Consulting, Inc.[16] estimated losses for Toronto Hydro's Large User (>5000 kW) class using a recent full year of load data for all 44 of the utility's Large User customers. Based on the results of this study, Toronto Hydro is proposing to update its loss factors for both Large User and other classes of customers,[17] in accordance with the OEB's expectation indicated in the CIR 2015 decision.[18]

12. **Actuarial valuations of post-employment benefits** by Willis Towers Watson for Toronto Hydro's employees as of 2017[19] and 2018[20] year-end provide an overview

[11] Exhibit 1B, Tab 3, Schedule 1 at pages 1-7; 1B-VECC-7(b); 2B-Staff-73(a).
[12] Issues 1.1; 2.0; 3.2; 5.1.
[13] Exhibit 2A, Tab 3, Schedule 1 at page 1, lines 15-18 and pages 1-3; Exhibit 2A, Tab 3, Schedule 2 at pages 1 and 20.
[14] Exhibit 2B, Section D, Appendix D.
[15] Exhibit 2B, Section D2 at page 6, lines 15-17, page 7, lines 1-31, page 8, lines 1-30, and page 9, lines 1-3.
[16] Exhibit 8, Tab 4, Schedule 2.
[17] Exhibit 8, Tab 1, Schedule 1 at page 9, lines 6-24 and page 10, lines 1-15; 8-Staff-146(c) at page 4.
[18] Eb-2014-0116, Decision and Order (December 29, 2015) at page 46.
[19] Exhibit 4A, Tab 4, Schedule 6.
[20] Exhibit U, Tab 4A, Schedule 3, Appendix C.

of the historical benefit expenses for those years and a forecast of future expenses for the 2019-2024 period.[21]

13. In accordance with the OEB's Filing Requirements,[22] Toronto Hydro filed its **rating agency reports** by Standard and Poor's and DBRS.[23]

14. Toronto Hydro participates in the planning process that produces the Central Toronto Area **Integrated Regional Resource Plan** ("IRRP"), led by the Independent Electricity System Operator ("IESO"), and in the **Regional Infrastructure Plans** ("RIP") for the Metro Toronto Region and Greater Toronto Area ("GTA") North Region, led by Hydro One Networks Inc. ("Hydro One").[24] In accordance with the OEB's Filing Requirements[25] the resulting reports are provided in Appendices A-E to Exhibit 2B, Section B. Toronto Hydro's expansion plans and their alignment with regional planning outputs are summarized in Exhibit 2B, Section E2 at pages 37-39.

15. Toronto Hydro obtained a **Letter of Comment** from the IESO[26] regarding the utility's renewable energy generation investments plan, in accordance with the OEB's Filing Requirements.[27] The IESO found that Toronto Hydro's renewable energy generation investments plan is substantially consistent with the IESO's information and regional planning principles, and that the planned investments support and enable the connection of additional renewable energy generation.[28]

[21] Exhibit U, Tab 4A, Schedule 3 at page 3, lines 12-20 and page 4, lines 1-12.
[22] Filing Requirements for Electricity Distributor Rate Applications, Chapter 2 (July 12, 2018), section 2.1.9.
[23] Exhibit 1C, Tab 3, Schedule 8, Appendices A and B.
[24] Exhibit 2B, Section B at pages 1-6.
[25] Filing Requirements for Electricity Distributor Rate Applications, Chapter 5 (July 12, 2018), section 5.2.2.
[26] Exhibit 2B, Section B, Appendix F.
[27] Filing Requirements for Electricity Distributor Rate Applications, Chapter 5 (July 12, 2018), section 5.2.2.
[28] Exhibit 2B, Section B at page 7, lines 1-17.