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UPDATED EXECUTIVE SUMMARY

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3 1. INTRODUCTION

This Schedule provides a summary of Hydro Ottawa Limited's ("Hydro Ottawa" or "the utility") application to the Ontario Energy Board ("OEB") seeking approval of its proposed distribution rates and other charges for the five-year period of January 1, 2021 to December 31, 2025. This application ("Application") is submitted pursuant to section 78 of the *Ontario Energy Board Act,* 1998. In preparing this Application, Hydro Ottawa has been guided by the provisions set forth in the *Chapter 2, Chapter 3*, and *Chapter 5 Filing Requirements for Electricity Distribution Rate Applications*, as updated on July 12, 2018 and addended on July 15, 2019 ("Filing Requirements"), as well as the *Handbook for Utility Rate Applications* issued in 2016.

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Herein, Hydro Ottawa highlights the key elements of this Application. These include the business, capital, and operational plans that underpin the Application, and the corresponding funding that is required to enable the utility to continue providing efficient and reliable services, along with a first-class customer experience, to Hydro Ottawa customers. This Schedule likewise explains how these plans align with customer needs and expectations, as well as what types of impacts are expected on customers' bills. For details on the specific approvals that Hydro Ottawa is requesting from the OEB by way of this Application, please see UPDATED Exhibit 1-1-4: Administration and UPDATED Attachment 1-1-4(A): OEB Appendix 2-A - List of Requested Approvals.

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This Application employs the Custom Incentive Rate-setting ("Custom IR") method and marks the second successive rate filing in which Hydro Ottawa has opted to avail itself of this particular rate-setting approach.

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Looking ahead to the 2021-2025 term, Hydro Ottawa anticipates a sustained need to undertake significant levels of capital investment in its distribution system, in order to maintain reliability and service quality for its customers. This need is the result of several factors, including aging



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infrastructure, an expanding customer base, continued growth across the City of Ottawa, and the effects of severe weather events. With respect to operational requirements, the utility likewise continues to face numerous pressures, such as ongoing shifts in consumer expectations for innovative services, the evolution of mission critical technologies, increased penetration of distributed energy resources ("DERs"), and workforce retirements. Together, these and other challenges are driving the need for investments and solutions which will ensure that overall system performance is maintained and customer preferences are met – all while safeguarding rates at a reasonable level. Accordingly, as described further below and elsewhere in this Application, the Custom IR method remains the most suitable rate-setting option to govern the approaching rate period for the utility.

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The rate plan set forth in this Application builds upon the scope and success of the Custom IR plan that Hydro Ottawa has been implementing over the course of the 2016-2020 period. Numerous milestones have been achieved in the execution of this plan. Foremost was the roll-out of a multi-year Customer Experience Roadmap, which was anchored in the twin imperatives of putting the customer at the centre of everything that Hydro Ottawa does and facilitating a customer experience that is driven by customer choice. Among the flagship deliverables in this initiative were enhancements to the Customer Contact Centre (including becoming one of the first distributors in Ontario to expand its hours of operation into Saturdays), deployment of omni-channel capabilities and self-serve features to support customer communication through preferred channels, introduction of a mobile application, achievement of the highest level of customer participation in online billing of any distributor in Ontario, and the launch of voice-activated digital assistance through such devices as Amazon Alexa and Google Home (the first of its kind by any electric utility in Canada). Concurrent with the implementation of this roadmap, Hydro Ottawa consistently received high marks from its customers in the annual surveys that were commissioned to measure customer satisfaction with the utility.

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28 Under its 2016-2020 rate plan, Hydro Ottawa has also crossed a new frontier in terms of operational effectiveness. As of the end of 2019, the utility was on track to successfully execute



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the largest multi-year capital expenditure plan in its history, with significant progress made in replacing a large portion of assets at the end of their useful lives, connecting new customers to the grid, and enhancing system capacity to keep pace with shifts in loads within the service territory. These expenditures have translated into improved system reliability and performance, with the utility having consistently met or exceeded its reliability targets over the 2016-2018 timeframe. In fact, over the course of 2016-2018, Hydro Ottawa met or exceeded each of the measures in the annual Electricity Utility Scorecard for which a target had been assigned, with 100% of those measures showing performance improvement or consistent trending. Moreover, the outage management and emergency restoration capabilities of the utility were put to the test during several significant extreme weather events – the most damaging of which was the unprecedented series of tornadoes that touched down in Hydro Ottawa's service territory in September 2018. While challenging, these events nevertheless presented the opportunity for the utility to demonstrate its organizational and operational strength, depth, and maturity. The positive response from customers and the community attested to the success of these efforts.

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Hydro Ottawa also successfully completed a once-in-a-generation project to consolidate the majority of its employees into new administrative and operations facilities. This project was executed pursuant to approval granted by the OEB in its Decision and Rate Order on Hydro Ottawa's 2016-2020 Custom IR application. For more background information, including a detailed justification of the prudency of the costs incurred by the utility in the completion of this project, please see UPDATED Attachment 2-1-1(A): New Administrative Office and Operations Facilities.

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4 Other noteworthy performance outcomes from 2016-2020 included the following:

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 Productivity gains through cost containment and increased automation of business processes;²

²⁸ Ontario Energy Board, *Decision and Order*, EB-2015-0004 (December 22, 2015).

 ² Several productivity initiatives have enabled Hydro Ottawa to seek a reduction in specific customer charges for the
 ² Several productivity initiatives have enabled Hydro Ottawa to seek a reduction in specific customer charges for the
 ² 2021-2025 rate term. Please see UPDATED Exhibit 8-7-1: Specific Service Charges for details.



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- Successful delivery of conservation programs to customers;
- Greater efficiencies in maintenance and construction work;
- Upgrades to core business systems (including migration to cloud-based platforms);
 - Implementation of a formal cyber security program;
 - Replenishment of the workforce through execution of a Talent Management Strategy;
 - Expansion of the fibre telecommunications network to connect field area devices with select substations; and
 - Financial returns consistent with approved Return on Equity ("ROE") levels.

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10 It merits observation that Hydro Ottawa achieved the aforementioned outcomes and their 11 attendant benefits against the backdrop of approximately 6.0% growth in total customer count 12 during the 2016-2020 period, and of successful efforts to ensure no net increase in overall 13 permanent full-time employee headcount.

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In light of its best-in-class performance in many areas, Hydro Ottawa received numerous industry and professional awards during the 2016-2020 period, with recognition extended in the contexts of customer programs, human resources and safety innovation, corporate social responsibility, and best employer (among others).

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Hydro Ottawa is confident that the accomplishments of the 2016-2020 rate term will position the utility for continued success in delivering value to customers and meeting their needs for reliable, responsive, and cost-effective services over the upcoming five-year period. As they did in the preceding rate plan, customer engagement, continuous improvement, and performance measurement will remain hallmarks of Hydro Ottawa's planned activity for 2021-2025. Productivity expectations and initiatives are embedded throughout the plans underpinning this Application, alongside a robust framework for tracking and measuring outcomes, much of which is informed by the benchmarking of Hydro Ottawa's performance in several key program areas.



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1 2. ABOUT HYDRO OTTAWA

Hydro Ottawa is licensed by the OEB to distribute electricity to approximately 340,000 customers, as of the end of 2019, within the City of Ottawa and the Village of Casselman. By number of customers, Hydro Ottawa is the third largest municipally-owned electricity distributor in Ontario. Its service territory covers 1,116 square kilometres and is comprised of a dense urban core, large areas of suburban development, and a vast rural area that represents 60% of the overall footprint.

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9 Hydro Ottawa and its predecessor utilities have proudly served communities in the National 10 Capital Region for over 100 years. The utility's unique customer base includes residential 11 customers, commercial businesses, farms, and large institutional and industrial customers. As 12 the national seat of government, Ottawa is home to the federal parliament and key institutions 13 within the Government of Canada. Moreover, in terms of population, the city serves as the 14 second largest in the Province of Ontario and the sixth largest in the country.

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In its current corporate structure, Hydro Ottawa serves as the successor to five utilities which consolidated in the year 2000 (Ottawa Hydro, Kanata Hydro, Gloucester Hydro, Nepean Hydro, and Goulbourn Hydro), following the amalgamation of several municipalities in the region and the formation of the City of Ottawa. In 2002, the service territory of Casselman Hydro was acquired.

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Hydro Ottawa is a wholly-owned subsidiary of Hydro Ottawa Holding Inc., which is 100% owned by the City of Ottawa and governed by an independent Board of Directors.

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25 3. HYDRO OTTAWA'S BUSINESS PLAN

In accordance with the OEB's *Handbook for Utility Rate Applications*, Hydro Ottawa has prepared a formal Business Plan that serves as the basis for the utility's overall strategy and goals, elucidates the intersection between these goals and the proposals set forth in this Application, and speaks to the benefits that will accrue to customers as a result of the plan's



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1 execution. This Business Plan was approved by Hydro Ottawa's Board of Directors on

2 November 28, 2019 and is included in this Application as **UPDATED** Exhibit 1-1-9.

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4 3.1 CORPORATE VISION & STRATEGIC OBJECTIVES

- 5 Hydro Ottawa's vision is to serve as a leading partner in a smart energy future and as the 6 trusted energy advisor for customers. In order to achieve this vision, the utility has organized its
- 7 business strategy for several years around four critical areas of focus and their accompanying
- 8 strategic objectives. Hydro Ottawa will maintain continuity in these core objectives heading into
- 9 the 2021-2025 period. The key rationale for this approach is the level of success achieved
- 10 during the preceding five-year rate term, as well as the trajectory of the business and policy
- 11 landscape in which Hydro Ottawa operates.

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- 13 Accordingly, as denoted in Figure 1 below, the business objectives that will guide Hydro
- 14 Ottawa's activities and investments throughout the 2021-2025 rate period will be the following:

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• **Customer Value:** we will deliver value across the entire customer experience by providing reliable, responsive, and innovative services at competitive rates.

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• **Financial Strength:** we will create sustainable growth in our business and our earnings by improving productivity and pursuing business growth opportunities that leverage our strengths – our core capabilities, our assets, and our people.

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 Organizational Effectiveness: we will achieve performance excellence by cultivating a culture of innovation and continuous improvement.

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• Corporate Citizenship: we will contribute to the well-being of the community by acting at all times as a responsible and engaged corporate citizen.



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Figure 1 – Corporate Strategic Objectives



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- 3 Of these objectives, the most important driver for Hydro Ottawa's business strategy will remain
- 4 Customer Value, with the utility striving to put the customer at the centre of everything it does.

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6 3.2 ALIGNMENT WITH THE RENEWED REGULATORY FRAMEWORK

7 The primary objectives animating Hydro Ottawa's corporate vision are wholly consistent with the 8 main performance outcomes promoted under the OEB's Renewed Regulatory Framework 9 ("RRF"). Hydro Ottawa views this broad alignment as a competitive advantage and remains 10 committed to firmly entrenching RRF principles and objectives throughout its operations and

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11 business.

Table 1 below illustrates the alignment between the utility's overarching objectives and the key categories of performance outcomes under the RRF. For additional context, the table also shows the congruence of Hydro Ottawa's high-level performance goals and strategic outcomes – which are utilized to measure progress in achieving the strategic objectives – with the RRF's areas of focus.



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Table 1 – Alignment of Hydro Ottawa's Corporate Areas of Focus and Strategic Objectives with the OEB's RRF Performance Outcomes

ОЕВ		Hydro Ottawa	
RRF Performance Outcomes	Key Area of Focus	Corporate Performance Goal	Strategic Outcome
Customer Focus	Customer Value	 Assist customers in managing their energy consumption and electricity costs Deliver on customer expectations for service quality and responsiveness Maintain overall distribution system reliability 	Customer loyalty and satisfaction
Operational Effectiveness	Organizational Effectiveness	 Continue to enhance operational performance and productivity Maintain leading health and safety record Enhance organizational and employee capability 	 Efficient and effective operations Safe and healthy work environment Engaged, aligned and prepared workforce
Public Policy Responsiveness	Corporate Citizenship	 Enhance our brand image in the community and the industry Continue to improve our environmental performance and reduce our impact on the environment 	 Leading governance and business practices Engaged stakeholders Safe, secure and environmentally responsible services Positive community impact
Financial Performance	Financial Strength	Grow revenues from new sources Enhance / protect revenues from existing business lines	Growth in shareholder value

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- 4 Further detail with respect to Hydro Ottawa's alignment with the RRF can be found in UPDATED
- 5 Exhibit 1-1-10: Alignment with the Renewed Regulatory Framework.

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7 3.3 CUSTOMER ENGAGEMENT

- 8 The integration of customer feedback and providing customers with value for money serve as
- 9 cornerstones of Hydro Ottawa's business planning. In step with its overall business strategy to
- 10 put the customer at the centre of everything it does, the utility endeavours to ensure that its
- 11 capital and operational investment plans are guided and informed by customer needs,
- 12 preferences, and priorities.



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1 Hydro Ottawa avails itself of numerous tools, activities, and interactions to engage customers 2 and to reflect their input in the utility's planning and plans. Foremost among these are the engagement initiatives that are administered on an ongoing basis. These represent an evergreen posture on Hydro Ottawa's part to develop a genuine understanding of customers' interests through a fluid and continuous feedback loop, which helps inform and sharpen the utility's service delivery as a matter of established routine. Several of these activities are in line 7 with industry best practice, such as an annual customer satisfaction survey, formal Key Accounts program, and engagement in numerous social media platforms. Other activities are homegrown, having been formulated and customized to suit the particular needs of the utility and its unique customer base. These include project-specific consultations that are hosted by Hydro Ottawa when major distribution system projects have the potential to impact customers and their community. Based on customer feedback, these consultations have resulted in the evaluation of additional design options, the use of less impactful equipment, and/or the collaborative scheduling of mutually agreeable timelines for project completion. Other examples include surveys that are conducted each month of customers who contact Hydro Ottawa's contact centre. Each customer is contacted and invited to rate their customer service experience. Through analysis and monitoring of these results, Hydro Ottawa is able to identify areas for improvement and adapt its processes to respond to customer preferences.

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As a complement to the foregoing activities, Hydro Ottawa undertook targeted customer outreach to inform the development of the specific plans and proposals set forth in this Application. Consisting of a mix of qualitative and quantitative methodologies, this engagement was launched in January 2019 and extended through September 2019.

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The initial phase yielded consistent findings across low-volume customer classes – namely, that reliability, prices, and investment in new technology constituted the top three priorities for customers. Moreover, these customers generally held favourable views on making proactive investments in aging infrastructure and grid modernization at the present time, with the understanding that this may lead to near-term costs but will result in future savings.



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Based upon the feedback received during Phase I, Hydro Ottawa undertook a second, more expansive phase of engagement, in which the utility surveyed customers for their detailed feedback on proposed plans for capital and operational investments over the 2021-2025 period. A series of expenditure options were presented – namely, a reference case outlining the utility's proposed course of action, along with scenarios which either accelerated and expanded the proposal, or which scaled back the scope and timing of the proposal. Customers were thus able

7 to express their views on a range of alternative proposals, as well as the respective trade-offs,

8 outcomes, and rate impacts.

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Ultimately, the response from customers in all classes was heavily weighted in support of Hydro
Ottawa's proposed plans or spending more than proposed for certain services. Nearly one-half
of respondents in the residential, small business, and mid-market and Key Account classes
(48%, 47%, and 46%, respectively) identified that Hydro Ottawa should maintain the forecasted
annual increase to deliver a program which focuses on the stated priorities. An additional 35%,
29%, and 23% of customers in these segments, respectively, expressed support for further
improvements in service, even if this entailed additional rate increases.

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Of note, the number of customers who participated in this engagement exercise – nearly 21,000 in total – was the largest in the history of any Hydro Ottawa rate application. In itself, this result was encouraging and instilled confidence in the quality of the information gleaned and the representativeness of the sample pool of customers. Beyond this, however, Hydro Ottawa was buoyed by the fact that the rate of response (i.e. number of respondents as a percentage of the total customer base) exceeded that which was observed in the most recent rate filings from the three largest distribution utilities in Ontario.³ In fact, according to the external vendor retained by Hydro Ottawa to help execute the customer consultation process, the utility's engagement

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29 EB-2019-0018 (May 28, 2019).

²⁶ ³ Hydro One Networks Inc., 2018-2022 Custom Incentive Rate-setting Distribution Rate Application, EB-2017-0049

^{27 (}March 31, 2017); Toronto Hydro-Electric System Limited, 2020-2024 Custom Incentive Rate-setting Distribution Rate

²⁸ Application, EB-2018-0165 (August 15, 2018); and Alectra Utilities Inc., 2020 Electricity Distribution Rate Application,



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- 1 represented the single largest proportion of customers ever engaged by an electricity distributor
- 2 in Ontario for the purpose of informing the development of a rate application.⁴

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- 4 Based upon customer feedback, Hydro Ottawa has crafted capital and operational plans that
- 5 emphasize the following four core principles:

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- Minimize rate increases
- 2. Maintain reliability and service quality
- 9 3. Address key pressures to the system, including:
- Aging infrastructure
 - An expanding customer base and continued population growth
- The effects of severe weather events
- Make prudent investments in emerging technologies to enhance service offerings
 and/or reduce operation costs

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- 16 Additional information on the portfolio of Hydro Ottawa's customer engagement activities, as
- 17 well as the targeted activities undertaken to consult customers on the development of this
- 18 Application, is available in Exhibit 1-2-1: Customer Engagement Overview and Exhibit 1-2-2:
- 19 Customer Engagement on the 2021-2025 Rate Application.

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21 3.4 DISTRIBUTION SYSTEM PLAN

- 22 Hydro Ottawa's Distribution System Plan ("DSP") represents the culmination of multiple internal
- 23 and external planning processes related to business strategy, customer engagement, capital
- 24 investment, asset management, and regional planning. The DSP details how distribution system
- 25 expenditures will be prioritized, paced, and optimized, while minimizing rate impacts for
- 26 customers and facilitating continuous improvement and productivity.

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28 The DSP in its entirety can be viewed in Exhibit 2-4-3.

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²⁹ ⁴ Attachment 1-2-2(A): Customer Engagement Report, page 2.



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1 3.5 PERFORMANCE MANAGEMENT AND MEASUREMENT

- 2 Hydro Ottawa is committing to a robust performance measurement and reporting framework for
- 3 the upcoming five-year rate period. This framework expands and builds upon the success of the
- 4 one that was in place for 2016-2020, and will maintain the approach of combining standard OEB
- 5 performance measures with others that are customized for Hydro Ottawa's unique use.

- 7 An integral component of this framework is the set of measures that will form the basis of Hydro
- 8 Ottawa's 2021-2025 Custom Performance Scorecard (see Table 2 below). These measures
- 9 have been selected based upon a variety of factors and drivers, including responsiveness to
- 10 customer preferences, alignment with core RRF and corporate strategic objectives, and
- 11 correlation to key findings from the benchmarking analyses performed in support of this
- 12 Application.



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Table 2 - Custom Performance Scorecard Measures for 2021-2025

Outcome	OEB Reporting Category	Hydro Ottawa Custom Measures	New/Existing	Target
		Contact Centre Satisfaction – Transactional Feedback	New	Maintain
Customer Focus	Customer Satisfaction	Number of MyAccount Customers	New	Increase
	Cationaction	Number of Online Billing Accounts	New	Increase
	Safety	All Injury/Illness Frequency Rate	New	Reduce
	Salety	Lost Workday Severity Rate	New	Reduce
		Customer Average Interruption Duration Index	Existing	Monitor
		Feeders Experiencing Multiple Sustained Interruptions	Existing	Maintain
		Worst Feeder Analysis – Number of Feeders with Very Poor Performance	Existing	Reduce
		Stations Exceeding Planning Capacity	Existing	≤5%
	System Reliability	Feeders Exceeding Planning Capacity	Existing	≤10%
		Stations Approaching Rated Capacity	Existing	0%
Operational Effectiveness		Feeders Approaching Rated Capacity	Existing	0%
		Productive Time	Existing	Maintain
		Labour Allocation	Modified	Maintain
	Cost Control	3-Year Average Cost per Pole – Wood Pole Replacement	New	Monitor
		3-Year Average Cost per Meter – Underground Cable	New	Monitor
		Average Cost per Kilometer – Vegetation Management	New	Monitor
		Average Cost per Pole – Pole Test and Inspection	New	Monitor
	Asset Efficiency	Technology Infrastructure Cost per Employee	New	Monitor
Dublic Belley		Annual Oil Spills & Costs of Remediation	Existing	Reduce
Public Policy Responsiveness	Environment	Non-Hazardous Waste Diversion Rate	New	Maintain
		Percentage of Green Suppliers	New	Maintain
		OM&A per Customer	New	Monitor
Financial	Financial Metrics	Bad Debt as a Percentage of Total Electricity Revenue	New	Monitor
Performance	T III arrolar Wetfies	Cumulative Capital Additions per Investment Category	New	Monitor
		Annual Capital Spending per Investment Category	New	Monitor

- 3 This proposed reporting regime is intended to equip the OEB, customers, and other
- 4 stakeholders with the ability to better monitor and understand diverse aspects of Hydro Ottawa's



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1 performance, and to demonstrate the utility's accountability in transparently communicating the

2 outcomes achieved under its performance management framework.

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4 3.6 BENCHMARKING

5 The preparation of Hydro Ottawa's business plan was supported by year-over-year comparisons

6 of Hydro Ottawa's costs and outcomes, along with evaluations of the utility's performance

7 against its peers. The scope and substance of particular capital and operational programs were

8 shaped, in part, by the analysis of trends in the achievement of system reliability, customer

9 value, and financial strength outcomes. Similarly, the benchmarking of Hydro Ottawa's

10 expenditures and performance relative to samples of utilities across Ontario, Canada, and the

11 United States has yielded valuable insights into areas in which the utility performs well and

12 those in which there is room for improvement.

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14 To help inform the development of its business plan, the utility commissioned the following

15 benchmarking studies from third-party experts:

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Table 3 – Benchmarking Studies Filed in this Application

Benchmarking Review External Consultant		Application Attachment		
Econometric Benchmarking Study of Hydro Ottawa's Total Cost and Reliability	Clearspring Energy Advisors	Attachment 1-1-12(A)		
Unit Costs Benchmarking Study	UMS Group	Attachment 1-1-12(B)		
IT Budget Assessment Benchmark	Gartner	Attachment 1-1-12(F)		
2019 Market Benchmarking	Mercer Canada	Attachment 1-1-12(G)		

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19 The results from these studies consistently revealed that Hydro Ottawa is a strong performer

20 relative to its peers in numerous categories, and that the utility is well-positioned to sustain

21 ongoing improvements in key areas of performance.



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1 These findings have been internalized and incorporated into specific work programs, and will

2 serve as important baselines and points of reference against which to measure the utility's

progress. 3

4

PRODUCTIVITY & CONTINUOUS IMPROVEMENT

6 Responsibly controlling costs and focusing on cost-effective delivery of outcomes that matter to 7 customers remain core priorities for Hydro Ottawa. Amidst the unique and challenging confluence of compounding demands, pressures, and constraints on operations, the utility is placing increased emphasis on incorporating productivity and continuous improvement gains, so as to offset increasing expenditures and boost organizational capacity. Hydro Ottawa has adopted numerous controls to provide the OEB, customers, and other stakeholders with robust assurance that productivity, cost control, and continuous improvement objectives have been firmly integrated into the utility's business planning process, and the resultant capital and 14 operational plans, for the 2021-2025 rate period.

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16 For information on the range of productivity and continuous improvement activities that are planned over the course of the upcoming rate term, please see Exhibit 1-1-13: Productivity and Continuous Improvement Initiatives.

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HYDRO OTTAWA'S CUSTOM IR APPLICATION 20 4.

As noted in the OEB's 2012 report entitled Renewed Regulatory Framework for Electricity Distributors: A Performance-Based Approach ("RRFE Report"), the Custom IR method is "intended to be customized to fit the specific applicant's circumstances" and "may be 24 appropriate for distributors with significantly large multi-year or highly variable investment

25 commitments with relatively certain timing and level of associated expenditures."6

²⁶ Ontario Energy Board, Report of the Board - Renewed Regulatory Framework for Electricity Distributors: A

²⁷ *Performance-Based Approach* (October 18, 2012), page 19. 28 ⁶ *Ibid*, page 14.



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1 4.1. PRINCIPAL DRIVERS JUSTIFYING THE USE OF CUSTOM IR

The foregoing description of the suitable context for employing the Custom IR option is one which remains applicable to Hydro Ottawa, as it prepares to enter into a new five-year rate period. The results of the utility's asset management and network investment planning processes have confirmed that significant capital investments are required over the course of 2021-2025, in order to ensure Hydro Ottawa is able to deliver safe and reliable electricity service and to meet the needs and expectations of customers.

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9 The drivers underlying this need are numerous. For starters, while the overall profile of Hydro Ottawa's asset demographic is positive, a major segment of the asset population (19%) has 11 reached its expected service life and thus poses a higher risk of failure. This includes 12 approximately 51% of stations and 23% of overhead system assets (i.e. poles, transformers, 13 and switches). Alongside these asset demographic figures, the utility's asset demographic 14 ratings show that 17% of assets are in Poor or Very Poor condition.⁷

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What's more, the City of Ottawa continues to experience steady year-over-year growth, with municipal policy promoting the development of new residential subdivisions and business parks, as well as intensification in urban areas.

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In addition, an increase in storms and severe weather events is placing greater stress on the system, with an upward trend over the last five years in the number of outages caused by adverse weather. During a six-month span in 2018 alone, there were three major weather events that affected the Ottawa area (tornadoes, flooding, and freezing rain), which in turn caused considerable damage to the system and heavily impacted spending in emergency replacement of assets.

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Please see Exhibit 2-4-3: Distribution System Plan for more information on the demographics and condition of the
 utility's assets.



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1 4.2. CAPITAL EXPENDITURES

2 Hydro Ottawa developed its forecasted capital expenditures for the years 2021-2025 based 3 upon an identification and analysis of system needs, customer expectations, and requirements 4 for general plant capital. The total capital expenditure forecast underwent a number of iterations 5 and refinements, in order to address issues of priority, customer preference, rate and bill

6 impacts, resource capacity, and financing capability.

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In response to feedback expressed by customers, appropriate parameters and constraints have been incorporated to limit the costs and impacts on bills associated with planned capital investments. In its customer engagement activities, Hydro Ottawa heard a recurring preference for reliability to be maintained or improved at minimal or no increased cost. As a result, the utility has created a capital plan that paces investments in order to minimize rate impacts, with a focus on continuous improvement with respect to the efficiency and productivity of distribution planning and plan implementation.

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One practical effect of this approach is that the proposals set forth in this Application do not encompass all of the investments that Hydro Ottawa would deem to be worthwhile for purposes of optimally fulfilling system needs during the 2021-2025 period.⁸ Nevertheless, Hydro Ottawa is confident that the portfolio of capital investments that ultimately emerged from its prioritization and calibration process will enable strong performance of the system and will serve customers' interests effectively.

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As originally submitted, Hydro Ottawa's capital expenditure plan for the 2021-2025 period proposes an average annual expenditure of \$100.7M per year, with this figure having been slightly adjusted to \$100.8M per year based on 2019 actuals, as follows:

 ⁸ As explained further in UPDATED Exhibit 2-4-1: Capital Expenditure Summary, the process undertaken by the utility
 to rationalize its initial asset needs forecast resulted in a reduction in the 2021-2025 capital expenditure forecast of
 approximately \$50.0M per year.



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Table 4 – AS ORIGINALLY SUBMITTED – Summary of 2021-2025 Capital Expenditures (\$'000,000s)

Investment Category	2021	2022	2023	2024	2025	Average 2021-2025
System Access	\$56.7	\$41.0	\$37.4	\$34.5	\$34.0	\$40.7
System Renewal	\$43.3	\$44.0	\$40.2	\$39.4	\$40.5	\$41.5
System Service	\$31.0	\$27.4	\$24.3	\$25.2	\$23.9	\$26.4
General Plant	\$32.0	\$11.7	\$7.6	\$17.4	\$16.9	\$17.1
Capital Contributions	\$(41.3)	\$(25.2)	\$(19.9)	\$(19.2)	\$(19.3)	\$(25.0)
TOTAL	\$121.8	\$98.9	\$89.6	\$97.2	\$96.0	\$100.7

4 Table 4 – UPDATED FOR 2019 ACTUALS – Summary of 2021-2025 Capital Expenditures (\$'000,000s)⁹

Investment Category	2021	2022	2023	2024	2025	Average 2021-2025
System Access	\$56.7	\$41.0	\$37.4	\$34.5	\$34.0	\$40.7
System Renewal	\$43.3	\$44.0	\$40.2	\$39.4	\$40.5	\$41.5
System Service	\$26.7	\$28.3	\$24.3	\$25.2	\$23.9	\$25.7
General Plant	\$32.0	\$11.7	\$7.6	\$17.4	\$16.9	\$17.1
Capital Contributions	\$(39.2)	\$(23.5)	\$(19.9)	\$(19.2)	\$(19.3)	\$(24.2)
TOTAL	\$119.5	\$101.5	\$89.6	\$97.2	\$96.0	\$100.8

7 For more detail on 2021-2025 capital funding requirements, please refer to Hydro Ottawa's DSP

8 and associated attachments in Exhibit 2-4-3.

0 4.3. OPERATIONS, MAINTENANCE & ADMINISTRATION EXPENDITURES

Hydro Ottawa's duties to manage a safe and reliable distribution system, serve customers in a manner that is responsive to their needs and preferences, and maintain compliance with a broad range of legislative and regulatory requirements compel the utility to incur a level of costs that is proportionate to the magnitude of its operational obligations. Responsibly controlling

The changes reflected in the updated version of Table 4 for 2021 and 2022 are the result of updates to the MiGen project, as described in updated section 2.3.3 of Attachment 2-4-3(E): Material Investments.

2021 Hydro Ottawa Limited Electricity Distribution Rate Application

9

6



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- 1 these costs and focusing on cost-effective delivery of outcomes therefore remain core priorities
- 2 for the utility. What's more, the critical importance of cost control is magnified against the
- 3 backdrop of the evolution underway across the broader North American electricity sector, which
- 4 is forcing utilities to modernize aspects of their service delivery models in order to adapt to the
- 5 increased complexity of system operations, the changing expectations of customers, and the
- 6 shifting economics of the marketplace.

7

- 8 It is important to understand Hydro Ottawa's proposed operations, maintenance, and
- 9 administration ("OM&A") expenditures for the years 2021-2025 in the context of OM&A costs for
- 10 the 2016-2020 Custom IR rate period, as presented in Table 5 below.

11

12 Table 5 – AS ORIGINALLY SUBMITTED – Historical, Bridge, and Test Year OM&A Costs by Major OM&A Category (\$'000s)

		Historical			ge	Test	
OM&A Category	2016	2017	2018	2019	2020	2021	CAGR ¹⁰
Operations	\$18,399	\$18,860	\$20,877	\$22,398	\$23,824	\$22,924	4.5%
Maintenance	\$9,739	\$10,299	\$9,125	\$8,653	\$9,767	\$9,855	0.2%
Subtotal	\$28,138	\$29,158	\$30,003	\$31,050	\$33,591	\$32,779	3.1%
Billing and Collecting	\$12,594	\$12,745	\$11,941	\$10,220	\$12,052	\$12,711	0.2%
Community Relations	\$5,290	\$5,120	\$4,759	\$5,131	\$5,895	\$6,365	3.8%
Subtotal	\$17,884	\$17,865	\$16,700	\$15.352	\$17,946	\$19,076	1.3%
Administrative and General	\$36,599	\$35,222	\$40,161	\$41,143	\$40,453	\$42,068	2.8%
TOTAL OM&A EXPENSES ¹¹	\$82,621	\$82,245	\$86,863	\$87,545	\$91,990	\$93,923	2.6%

14

¹⁶ CAGR represents the compound annual growth rate between 2017 and 2021.

^{17 &}lt;sup>11</sup> Totals may not sum due to rounding.



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1 Table 5 – UPDATED FOR 2019 ACTUALS – Historical, Bridge, and Test Year OM&A Costs by Major OM&A Category (\$'000s)

		Hist	orical		Bridge	Test	
OM&A Category	2016	2017	2018	2019	2020	2021	CAGR ¹²
Operations	\$18,399	\$18,860	\$20,877	\$20,863	\$23,824	\$22,924	4.5%
Maintenance	\$9,739	\$10,299	\$9,125	\$7,693	\$9,767	\$9,855	0.2%
Subtotal	\$28,138	\$29,158	\$30,003	\$28,556	\$33,591	\$32,779	3.1%
Billing and Collecting	\$12,594	\$12,745	\$11,941	\$10,873	\$12,052	\$12,711	0.2%
Community Relations	\$5,290	\$5,120	\$4,759	\$4,796	\$5,895	\$6,365	3.8%
Subtotal	\$17,884	\$17,865	\$16,700	\$15,670	\$17,946	\$19,076	1.3%
Administrative and General	\$36,599	\$35,222	\$40,161	\$38,887	\$40,453	\$42,068	2.8%
TOTAL OM&A EXPENSES ¹³	\$82,621	\$82,245	\$86,863	\$83,113	\$91,990	\$93,923	2.6%

4 Based on the proposed costs for the 2021 Test Year, OM&A expenditures for the remaining

5 years of the 2021-2025 Custom IR period have been calculated through the application of an

6 escalation factor, which is discussed in further detail in section 4.4 below. The result is the

7 breakdown of OM&A costs shown in Table 6.

Table 6 – Annual OM&A Program Expenditures for 2021-2025 (\$'000s)

2021	2022	2023	2024	2025
\$93,923	\$96,280	\$98,697	\$101,174	\$103,714

11 Hydro Ottawa's proposed OM&A costs over the 2021-2025 term translate into an average 12 annual expenditure of \$98.8M.

14 Of note, during the internal budgeting process, the initial levels of OM&A submitted by the

15 various Divisions within the utility resulted in a compound annual growth rate ("CAGR") of 3.5%

16 over the 2021-2025 period. In step with its commitment to continuous improvement and with

17 12 CAGR represents the compound annual growth rate between 2017 and 2021.

^{18 &}lt;sup>13</sup> Totals may not sum due to rounding.



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1 customer preferences for minimizing rate increases, Hydro Ottawa then applied a custom

2 OM&A escalation factor to contain upward pressure on operational expenses and to embed

3 productivity expectations throughout the 2021-2025 period. This lowered the overall OM&A

4 CAGR to 2.51% and achieved a reduction of \$13.1M in OM&A spending over the course of the

5 rate term.

6

7 For additional information on Hydro Ottawa's OM&A programs, cost drivers, and year-over-year

8 variances, please see **UPDATED** Exhibit 4-1-1: Operations, Maintenance and Administration

9 Summary and UPDATED Exhibit 4-1-4: Operations, Maintenance and Administration Cost

10 Drivers and Program Variance Analysis.

11

12 4.4. CUSTOM PRICE ESCALATION FACTOR

As established by the RRF, under a price cap form of incentive rate-setting, rates are adjusted using a formulaic approach in the years following the first year base rates. This formula consists of a two-component Price Cap Index ("PCI"): inflation and productivity. For electricity distributors, the formula includes an industry-specific inflation factor and two factors for productivity. One productivity factor is a fixed amount for industry-wide productivity, and the other is a stretch factor which is set each year based on the level of productivity the distributor has achieved as evaluated by the Pacific Economics Group ("PEG") econometric model.

20

1 Under a Custom IR approach, the annual rate adjustment must be based on a custom index

22 supported by empirical evidence that can be tested. The annual adjustment must include explicit

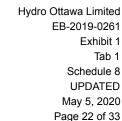
3 financial incentives for continuous improvement and cost control targets. As noted in the OEB's

24 Handbook for Utility Rate Applications, "these incentive elements, including a productivity factor,

25 must be incorporated through a custom index or an explicit revenue reduction over the term of

26 the plan (not built into the cost forecast)."14

²⁸ Ontario Energy Board, *Handbook for Utility Rate Applications* (October 13, 2016), page 25.





As a result, for years two through five of its upcoming rate term (i.e. 2022-2025), Hydro Ottawa is proposing to adopt a Custom Price Escalation Factor ("CPEF") framework, which is based on the approach approved by the OEB in Hydro Ottawa's 2016-2020 Custom IR application. This framework is aligned with OEB policy and based on sound ratemaking principles, and incorporates the OEB's key principles and expectations of a Custom IR application.

6

7 Hydro Ottawa is proposing that OM&A costs in years two through five of its rate term be adjusted by the CPEF, on an annual basis, as follows:

9

10 **CPEF = I - X + G**

11

12 where

13

14 "I" is the inflation factor

15 "X" is the two-component productivity factor

16 "G" is the growth factor

17

18 Using this formula, Hydro Ottawa has determined that the CPEF will be 2.51%.

19

20 A more detailed explanation of the CPEF and the evidence supporting the use and assigned

21 value of each factor is included in **UPDATED** Exhibit 1-1-10: Alignment with the Renewed

22 Regulatory Framework.

23

24 **4.5. RATE BASE**

- 25 As originally submitted, Hydro Ottawa's requested rate base for the 2021 test year is \$1,219M,
- 26 which represents an increase of approximately \$244.8M or 25% over the OEB-approved rate
- 27 base for the 2020 Bridge Year. After accounting for 2019 actuals, Hydro Ottawa is revising its
- 28 requested rate base for the 2021 test year to \$1,231M. This represents an increase of

²⁹ ¹⁵ Ontario Energy Board, *Decision and Order*, EB-2015-0004 (December 22, 2015), page 1.



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approximately \$256.9M or 26% over the OEB-approved rate base for 2020. Table 7, as updated

2 below, identifies the rate base requested for each year during the 2021-2025 period. Please

3 refer to UPDATED Exhibit 2-1-1: Rate Base Overview for further details.

Table 7 – AS ORIGINALLY SUBMITTED – Summary of Rate Base (\$'000s)

	2021	2022	2023	2024	2025
Rate Base	\$1,218,659	\$1,303,922	\$1,349,619	\$1,376,805	\$1,419,763

Table 7 – UPDATED FOR 2019 ACTUALS – Summary of Rate Base (\$'000s)

	2021	2022	2023	2024	2025
Rate Base	\$1,230,736	\$1,315,708	\$1,363,582	\$1,390,890	\$1,433,972

9 4.6. REVENUE REQUIREMENT

Hydro Ottawa is requesting approval for both service and base revenue requirement for each year in its planned 2021-2025 rate term, along with the resulting rates and riders based on forecast capital expenditures, OM&A, depreciation expense, cost of capital, payments in lieu of taxes ("PILS"), and revenue from other sources. For the 2021 Test Year, Hydro Ottawa requests a service revenue requirement of \$214.9M, which represents an increase of \$14.3M or 7% from the service revenue requirement previously approved by the OEB for 2020. After accounting for 2019 actuals, Hydro Ottawa is revising its request to a service revenue requirement of \$216.6M for the 2021 Test Year, which represents an increase of \$16.1M or 8% from the service revenue requirement previously approved by the OEB for 2020.

The principal cost drivers underlying Hydro Ottawa's Test Year revenue requirement are the increases to rate base, which are attributable to capital investments that the utility must undertake in order to continue providing safe and reliable electricity service to the residents and businesses in Ottawa and Casselman. Other cost drivers include increases to amortization expense, OM&A expenses, interest, and return on rate base.

25

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1 Table 8, as updated below, provides a summary of the proposed revenue requirement for

2 2021-2025.

3

4 For additional details regarding Hydro Ottawa's revenue requirement and related cost drivers,

5 please refer to **UPDATED** Exhibit 6-1-1: Calculation of Revenue Deficiency or Sufficiency.

6

7

Table 8 - AS ORIGINALLY SUBMITTED - Summary of Revenue Requirement for

8 **2021-2025 (\$'000s)**

	2021	2022	2023	2024	2025
Return on Rate Base	\$67,489	\$73,588	\$77,441	\$79,860	\$84,624
Distribution Expenses (not including amortization)	\$93,923	\$96,280	\$98,697	\$101,174	\$103,714
Amortization	\$52,450	\$56,860	\$59,142	\$60,711	\$64,027
Payment in Lieu of Taxes	\$1,024	\$5,211	\$8,766	\$11,660	\$7,689
Service Revenue Requirement	\$214,886	\$231,939	\$244,045	\$253,405	\$260,053
Less Revenue Offsets	\$10,977	\$11,013	\$11,667	\$12,151	\$12,457
Base Revenue Requirement	\$203,909	\$220,926	\$232,378	\$241,254	\$247,596
Transformer Ownership Credit	\$1,056	\$1,056	\$1,056	\$1,059	\$886
Revenue Requirement from Rates	\$204,965	\$221,982	\$233,434	\$242,312	\$248,483
Forecasted Load at 2020 Rates	\$187,905	\$188,833	\$189,716	\$190,703	\$191,468
Cumulative Revenue Deficiency (over 2020)	\$(17,060)	\$(33,149)	\$(43,719)	\$(51,609)	\$(57,014)
Yearly Revenue Deficiency over 2020	\$(17,060)	\$(16,089)	\$(10,570)	\$(7,891)	\$(5,405)

9



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Table 8 – UPDATED FOR 2019 ACTUALS – Revenue Deficiency/Sufficiency for

2 **2021-2025 (\$'000s)**

	2021	2022	2023	2024	2025
Return on Rate Base	\$68,158	\$74,253	\$78,242	\$80,677	\$85,470
Distribution Expenses (not including amortization)	\$93,923	\$96,280	\$98,697	\$101,174	\$103,714
Amortization	\$52,333	\$56,699	\$59,015	\$60,585	\$63,900
Payment in Lieu of Taxes	\$2,224	\$3,881	\$8,604	\$11,533	\$7,590
Service Revenue Requirement	\$216,638	\$231,113	\$244,558	\$253,969	\$260,674
Less Revenue Offsets	\$11,013	\$10,971	\$11,667	\$12,151	\$12,457
Base Revenue Requirement	\$205,624	\$220,142	\$232,891	\$241,817	\$248,217
Transformer Ownership Credit	\$1,056	\$1,056	\$1,056	\$1,059	\$886
Revenue Requirement from Rates	\$206,680	\$221,197	\$233,947	\$242,876	\$249,104
Forecasted Load at 2020 Rates	\$187,888	\$188,816	\$189,699	\$190,686	\$191,453
Cumulative Revenue Deficiency (over 2020)	\$(18,792)	\$(32,381)	\$(44,248)	\$(52,190)	\$(57,651)
Yearly Revenue Deficiency over 2020 ¹⁶	\$(18,792)	\$(13,589)	\$(11,867)	\$(7,942)	\$(5,461)

3 4.7. LOAD FORECAST

- 4 Hydro Ottawa's forecasted energy consumption for the 2021 Test Year is 7,065,745 MWh, as
- 5 originally submitted. After accounting for 2019 actuals, Hydro Ottawa's forecasted energy
- 6 consumption for the 2021 Test Year is 7,063,482. This is 377,142 MWh (5.1%) lower than the
- 7 2016 OEB-approved MWh forecast. The utility's forecasted number of customers for the 2021
- 8 Test Year is 344,936, representing an increase of 6.1% over the 2016 OEB-approved number.

Table 9, as updated below, provides a high-level summary of Hydro Ottawa's forecasted load for 2021-2025.

12

1

13

14 ¹⁶ Totals may not sum due to rounding.

Totals may not sum due to rounding



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Table 9 – AS ORIGINALLY SUBMITTED – Load Forecast Summary

Year	Total Sales (MWh)	Total Customers ¹⁷
2021	7,065,745	344,936
2022	7,088,184	348,104
2023	7,116,619	351,138
2024	7,165,092	354,088
2025	7,179,631	357,017

2

1

Table 9 – UPDATED FOR 2019 ACTUALS – Load Forecast Summary

Year	Total Sales (MWh)	Total Customers ¹⁸
2021	7,063,482	344,936
2022	7,085,688	348,104
2023	7,113,883	351,138
2024	7,162,048	354,088
2025	7,176,418	357,017

4

5 Hydro Ottawa has provided a five-year detailed class-specific weather normalized load forecast

6 and customer connection forecast for each rate class in UPDATED Exhibit 3-1-1: Load

7 Forecast. This forecast incorporates modifications to the provincial electricity conservation

8 framework that were enacted by the Government of Ontario in 2019, as well as the impacts of

embedded generation.

10

11 4.8. COST OF CAPITAL

12 Cost of capital components have been determined for each year during the 2021-2025 planned

13 rate term. Hydro Ottawa has used the following debt/equity ratio for all years: 4% short-term

14 debt, 56% long-term debt, and 40% equity.

15

16 Hydro Ottawa has utilized the short-term debt rate of 2.75%, as provided in the 2020 Cost of

17 Capital Parameters letter dated October 31, 2019, for the full five-year term covered by this

18 Application. The utility has forecasted the weighted average cost of long-term debt based on the

^{19 17} Figures in this column do not include Standby Power customers.

²⁰ ¹⁸ Figures in this column do not include Standby Power customers.



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- 1 cost of existing embedded debt, anticipated long-term borrowing requirements, and the forecast
- 2 yield for 2021-2025 long-term debt issuances. Using the OEB's formulaic calculation, Hydro
- 3 Ottawa has also forecast an ROE for the full five-year period covered by this Application.

4

- 5 It is Hydro Ottawa's intention to provide regulatory efficiency and rate stability over the five-year
- 6 term of this Application by not making any further updates to the cost of capital components.

7

- For additional details on the cost of capital determinations and calculations employed by Hydro
- 9 Ottawa, please see UPDATED Exhibit 5-1-1: Cost of Capital and Capital Structure.

10

11 4.9. COST ALLOCATION AND RATE DESIGN

- 12 Hydro Ottawa has prepared a cost allocation model for each of the five years in the proposed
- 13 2021-2025 rate plan using the OEB's cost allocation methodologies and model. Hydro Ottawa's
- 14 2021 base revenue requirement has been allocated across the utility's nine rate classes. The
- 15 resulting revenues-to-cost ratios for each rate class were determined using the total revenues
- 16 over costs for each year, pursuant to OEB guidelines.

17

- 18 Hydro Ottawa engaged Elenchus Research Associates to undertake a Cost Allocation Model
- 19 study to determine whether refinements were necessary to better reflect the OEB's principle of
- 20 cost causality in its cost allocation to customers. The results of the study indicated that four rate
- 21 classes require adjustments to bring them within OEB-approved ranges. In this Application, the
- 22 utility is proposing the necessary adjustments to achieve this result. For more information,
- 23 please see **UPDATED** Exhibit 7-1-1: Cost Allocation.

- 25 With respect to rate design, one noteworthy feature of Hydro Ottawa's 2021-2025 rate plan is
- 26 that it marks the first five-year rate term for the utility in which distribution rates for residential
- 27 customers will be set at a fully fixed charge. Effective January 1, 2020, Hydro Ottawa completed
- 28 the transition to fully fixed rates for these customers, in accordance with the policy adopted by



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1 the OEB in 2015. 19 As noted elsewhere, the execution of this transition has implications for the

2 presentation of information pertaining to the impacts on residential customer rates associated

3 with the proposals and plans set forth in this Application.²⁰

4

DEFERRAL AND VARIANCE ACCOUNTS 5 4.10.

6 Hydro Ottawa is proposing to clear Group 2 Accounts, including the Lost Revenue Adjustment

7 Mechanism ("LRAM") Account. The total net deferral and variance ("DVA") balance proposed for

8 disposition is \$(5,751,923), as originally submitted. Hydro Ottawa is proposing that the Rate

Riders for Group 2 Accounts (excluding LRAM) be disposed of over two years. For the LRAM

Variance Account, a one-year disposition period is proposed. As no Group 1 Accounts are being

requested for disposition at this time, the rate riders are the same for Regulated Price Plan

12 ("RPP") and non-RPP customers.

13

After accounting for 2019 actuals, Hydro Ottawa is proposing to clear Group 1 and Group 2

Accounts, including the LRAM Account. The total net DVA updated balance proposed for

disposition is \$(6,695,545). Hydro Ottawa is proposing that the Deferral/Variance Accounts Rate

Riders for Group 1 and Group 2 Accounts be disposed of over two years. Disposition of all other

rate riders is requested over a one-year period. 18

19

In this Application, Hydro Ottawa is also proposing modifications to and the discontinuance of

certain DVAs. For further such information, as well as for details on amounts proposed for DVA

22 clearances, please see **UPDATED** Exhibit 9-1-1: Summary of Current Deferral and Variance

23 Accounts and Exhibit 9-2-1: New Deferral and Variance Accounts.

24

25 **4.10.1. Capital Variance Account**

26 In this Application, Hydro Ottawa proposes to sustain the use of a variance account wherein it

27 will record, on an annual basis, the impacts on revenue requirement arising from variances

²⁸ Ontario Energy Board, *Board Policy - A New Distribution Rate Design for Residential Electricity Customers*,

EB-2012-0410 (April 2, 2015). Please see Exhibit 8-2-1: Rate Design Policy Consultation for details.

To result in the provided in the provide



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between actual and forecasted cumulative capital additions. Capital additions would be tracked using three categories: System Access, System Service and System Renewal, and General Plant.²¹ The creation and use of such a variance account was sanctioned as part of the Approved Settlement Agreement governing Hydro Ottawa's 2016-2020 rates. The utility believes that the administration of this capital variance account on an ongoing basis is an effective means of ensuring transparency and accountability in the planning, execution, and reporting of annual capital expenditures. By proposing the calculation of the annual variance on a cumulative basis, Hydro Ottawa's intent is to ensure that if projects are delayed, but are completed as planned at a later time, then the reduction to revenue requirement will only reflect the period of delay and will cease when the projects have been added to rate base.

11

The one modification to the capital variance account that Hydro Ottawa is proposing to introduce for the 2021-2025 period is the use of a separate sub-account for System Access capital additions. The rationale for this proposal is that capital spending in this category is driven by customer requests and is therefore difficult to predict, as the level of required expenditure is outside of the utility's control.

17

18 For additional information on the Capital Variance Account, please see Exhibit 9-2-1: New 19 Deferral and Variance Accounts.

20

21 **4.10.2**. Earnings Sharing Mechanism

In order to insulate customers from the risk of Hydro Ottawa generating excess earnings, the utility is proposing the inclusion of an earnings sharing mechanism ("ESM"). ESMs permit the sharing of utility earnings with customers when earnings rise above or fall below a certain threshold. Under an ESM, earnings may be passed along to customers in the form of rate reductions or rate offsets. Hydro Ottawa is proposing an asymmetrical ESM such that it is only

²⁷ The System Renewal and System Service categories have been merged into one category to reflect Hydro

²⁸ Ottawa's standard operating practice to shift funds between the two categories, as warranted by customer and

²⁹ operational requirements.



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- 1 proposing to share earnings that exceed a basis point threshold above the utility's ROE, with no
- 2 corresponding adjustment if its earnings fall below the basis point threshold.
- 4 The proposed ESM formula is as follows:

5

3

Table 10 – Proposed ESM Formula

#	Threshold	Treatment				
1	Under earning	Borne entirely by shareholder				
2	0-150 basis points	Fully retained by shareholder				
3	Above 150 basis points	50/50 sharing of ratepayer/shareholder				

7

Additional detail on the ESM is included in Exhibit 9-2-1: New Deferral and Variance Accounts.

9

10 **4.10.3**. **Z Factor(s)**

In its *Handbook for Utility Rate Applications*, the OEB affirmed its policy that "[a]n acceptable adjustment during a Custom IR term is a Z factor mechanism for cost recovery of unforeseen events." In step with this guideline, Hydro Ottawa intends to reserve its right over the course of the 2021-2025 rate term to file a Z factor application in order to recover costs resulting from unforeseen events, decisions, or activities, the results of which cannot be reasonably anticipated or quantified at this juncture and where the costs exceed the utility's materiality threshold. Examples include unforeseen weather events or changes to laws or regulations requiring significant implementation investment.

19

20 4.10.4. Certification of Evidence - Commodity Accounts 1588 and 1589

- 21 As per the Filing Requirements, Hydro Ottawa's Chief Financial Officer hereby certifies that the
- 22 utility maintains robust processes and internal controls for the preparation, review, verification,
- 23 and oversight of Account 1588 RSVA Power and Account 1589 RSVA Global Adjustment.

²⁵ Ontario Energy Board, *Handbook for Utility Rate Applications* (October 13, 2016), page 27.



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1 4.11. BILL IMPACTS

- 2 Table 11, as updated below, provides a summary of the total bill impacts for typical customers in
- 3 all rate classes. Further details regarding Hydro Ottawa's proposed bill impacts are available in
- 4 **UPDATED** Exhibit 8-12-1: Bill Impact Information.



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Table 11 - AS ORIGINALLY SUBMITTED - Summary of Bill Impacts

D (0)		Approved	Proposed				
Rate Class		2020	2021	2022	2023	2024	2025
Residential (750 kWh)	Distribution Charge	\$28.64	\$29.95	\$32.13	\$33.97	\$34.95	\$35.56
	Change in Distribution Charge		\$1.31	\$2.18	\$1.84	\$0.98	\$0.61
	% Distribution Increase		4.57%	7.28%	5.73%	2.88%	1.75%
	% Increase of Total Bill		1.32%	1.54%	1.28%	0.68%	0.43%
General	Distribution Charge	\$71.32	\$73.06	\$78.13	\$83.28	\$86.33	\$88.58
Service	Change in Distribution Charge		\$1.74	\$5.07	\$5.15	\$3.05	\$2.25
<50 kW	% Distribution Increase		2.44%	6.94%	6.59%	3.66%	2.61%
(2,000 kWh)	% Increase of Total Bill		0.65%	1.37%	1.37%	0.81%	0.59%
General	Distribution Charge	\$1,461.93	\$1,537.98	\$1,669.42	\$1,785.17	\$1,853.01	\$1,905.37
Service 50 kW -	Change in Distribution Charge		\$76.05	\$131.44	\$115.76	\$67.84	\$52.36
1,499 kW	% Distribution Increase		5.20%	8.55%	6.93%	3.80%	2.83%
(250 kW)	% Increase of Total Bill		1.59%	0.74%	0.65%	0.38%	0.29%
General	Distribution Charge	\$15,941.18	\$16,614.68	\$18,015.99	\$19,263.84	\$19,992.90	\$20,452.40
Service	Change in Distribution Charge		\$673.50	\$1,401.31	\$1,247.85	\$729.06	\$459.50
1,500 kW - 4,999 kW	% Distribution Increase		4.22%	8.43%	6.93%	3.78%	2.30%
(2,500 kW)	% Increase of Total Bill		1.53%	0.78%	0.69%	0.40%	0.25%
	Distribution Charge	\$48,420.32	\$53,922.32	\$58,287.22	\$62,092.67	\$64,292.42	\$65,709.17
Large Use	Change in Distribution Charge		\$5,502.00	\$4,364.90	\$3,805.45	\$2,199.75	\$1,416.75
(7,500 kW)	% Distribution Increase		11.36%	8.09%	6.53%	3.54%	2.20%
	% Increase of Total Bill		2.16%	0.79%	0.68%	0.39%	0.25%
	Distribution Charge	\$9.53	\$10.91	\$13.14	\$15.31	\$17.20	\$18.99
Sentinel Lighting	Change in Distribution Charge		\$1.38	\$2.23	\$2.17	\$1.89	\$1.79
(0.4 kW)	% Distribution Increase		14.46%	20.46%	16.54%	12.33%	10.44%
` ,	% Increase of Total Bill		7.36%	8.74%	7.83%	6.32%	5.65%
_	Distribution Charge	\$7.76	\$6.99	\$7.97	\$8.68	\$8.98	\$9.24
Street	Change in Distribution Charge		\$(0.77)	\$0.98	\$0.71	\$0.30	\$0.26
Lighting (1 kW)	% Distribution Increase		(9.98)%	14.07%	8.92%	3.46%	2.91%
(' /	% Increase of Total Bill		(1.10)%	3.16%	2.24%	0.96%	0.83%
Unmetered Scattered Load (470 kWh)	Distribution Charge	\$17.08	\$17.49	\$19.55	\$21.37	\$22.67	\$23.82
	Change in Distribution Charge		\$0.41	\$2.06	\$1.82	\$1.30	\$1.15
	% Distribution Increase		2.42%	11.76%	9.33%	6.10%	5.07%
	% Increase of Total Bill		0.98%	2.36%	2.05%	1.44%	1.26%

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Table 11 – UPDATED FOR 2019 ACTUALS – Summary of Bill Impacts

D 4 01		Approved		Proposed			
Rate Class		2020	2021	2022	2023	2024	2025
Residential (750 kWh)	Distribution Charge	\$28.64	\$30.62	\$32.50	\$34.04	\$35.03	\$35.65
	Change in Distribution Charge		\$1.98	\$1.88	\$1.54	\$0.99	\$0.62
	% Distribution Increase		6.91%	6.15%	4.74%	2.91%	1.77%
	% Increase of Total Bill		1.53%	1.33%	1.38%	0.69%	0.43%
General	Distribution Charge	\$71.32	\$74.21	\$79.23	\$83.71	\$86.76	\$89.02
Service	Change in Distribution Charge		\$2.89	\$5.02	\$4.48	\$3.05	\$2.26
<50 kW	% Distribution Increase		4.05%	6.76%	5.65%	3.64%	2.60%
(2,000 kWh)	% Increase of Total Bill		0.69%	1.36%	1.52%	0.80%	0.59%
General	Distribution Charge	\$1,461.93	\$1,508.85	\$1,620.11	\$1,788.85	\$1,857.00	\$1,909.66
Service	Change in Distribution Charge		\$46.93	\$111.26	\$168.74	\$68.15	\$52.66
50 kW - 1,499 kW	% Distribution Increase		3.21%	7.37%	10.42%	3.81%	2.84%
(250 kW)	% Increase of Total Bill		2.96%	(1.08)%	1.20%	0.38%	0.29%
General	Distribution Charge	\$15,941.18	\$16,483.93	\$17,672.63	\$19,315.57	\$20,048.54	\$20,512.79
Service 1,500 kW -	Change in Distribution Charge		\$542.75	\$1,188.70	\$1,642.94	\$732.97	\$464.25
4,999 kW	% Distribution Increase		3.40%	7.21%	9.30%	3.79%	2.32%
(2,500 kW)	% Increase of Total Bill		2.94%	(1.01)%	1.18%	0.40%	0.25%
	Distribution Charge	\$48,420.32	\$53,055.32	\$56,727.95	\$62,069.06	\$64,275.56	\$65,702.06
Large Use	Change in Distribution Charge		\$4,635.00	\$3,672.63	\$5,341.11	\$2,206.50	\$1,426.50
(7,500 kW)	% Distribution Increase		9.57%	6.92%	9.42%	3.55%	2.22%
	% Increase of Total Bill		3.46%	(1.19)%	1.38%	0.39%	0.25%
	Distribution Charge	\$9.53	\$11.25	\$13.34	\$15.38	\$17.30	\$19.12
Sentinel Lighting	Change in Distribution Charge		\$1.72	\$2.10	\$2.04	\$1.91	\$1.82
(0.4 kW)	% Distribution Increase		18.02%	18.64%	15.32%	12.43%	10.53%
` ,	% Increase of Total Bill		8.47%	8.13%	7.62%	6.38%	5.71%
_	Distribution Charge	\$7.76	\$7.46	\$8.08	\$8.80	\$9.11	\$9.38
Street	Change in Distribution Charge		\$(0.30)	\$0.62	\$0.72	\$0.31	\$0.27
Lighting (1 kW)	% Distribution Increase		(3.89)%	8.26%	8.94%	3.55%	3.00%
· · · · · /	% Increase of Total Bill		(0.22)%	1.96%	2.93%	0.99%	0.87%
Unmetered	Distribution Charge	\$17.08	\$17.68	\$19.38	\$21.25	\$22.55	\$23.70
Scattered	Change in Distribution Charge		\$0.60	\$1.71	\$1.86	\$1.30	\$1.15
Load	% Distribution Increase		3.54%	9.64%	9.61%	6.13%	5.10%
(470 kWh)	% Increase of Total Bill		0.92%	1.96%	2.42%	1.44%	1.26%