PUBLIC INTEREST ADVOCACY CENTRE
LE CENTRE POUR LA DÉFENSE DE L'INTÉRÊT PUBLIC

July 22, 2025 **VIA E-MAIL**

Ritchie Murray
Acting Registrar (registrar@oeb.ca)
Ontario Energy Board
Toronto, ON

Dear Mr. Murray:

Re: EB-2024-0115 Hydro Ottawa
2026-2030 Customer IR
Interrogatories of the Vulnerable Energy Consumers Coalition (VECC)

Please find attached the revised interrogatories of VECC in the above-noted proceeding. We have also directed a copy of the same to the Applicant.

Yours truly,

Mark C. Garner Digitally signed by Mark C. Garner
Date: 2025.07.22 16:59:44 -04'00'

Mark Garner
Consultants for VECC/PIAC

April Barrie, Director, Regulatory Affairs, Hydro Ottawa Limited
RegulatoryAffairs@HydroOttawa.com

Charles Keizer, Torys LLP, Counsel to Hydro Ottawa Limited
ckeizer@torys.com

REQUESTOR NAME	**VECC**
TO:	**Hydro Ottawa Limited (HOL)**
DATE:	**July 22, 2025**
CASE NO:	**EB-2024-0115**
APPLICATION NAME	**2026-2030 Custom IR Rate Application**

1.0 ADMINISTRATION (EXHIBIT 1)

1.0-VECC-1

Reference: Exhibit 1, Tab 2, Schedule 3, Table 10, page 55

a) Please provide an actual discrete objective for each "Target" on the Customer Performance Scorecard (e.g. a numeric objective).

b) If an actual target cannot be provided please explain why.

c) Please explain, what if any, relationship there is between achieving (or not) any of the targets and the rates charged to customers. For example, if any year HOL fails to meet the "Percentage of Online Billing Accounts" of 80% what difference, if any, does this make to the rates charged to customers?

d) If HOL fails to achieve an outcome target, specifically a target related to reliability or outage management, why should ratepayers not get a reduced price for their service?

1.0-VECC-2

Reference: Exhibit 1, Tab 2, Schedule 5,

a) Please provide a table showing the Canadian annualized CPI for the years 2016 to 2024. For 2025 please show the average 6 month CPI.

1.0-VECC-3

Reference: Exhibit 1, Tab 3, Schedule 1,

a) Please explain why HOL changed the working capital compensation from its prior rate plan to include changes to Power Purchases and OM&A?

1.0-VECC-4

Reference: Exhibit 1, Tab 3, Schedule 1,

a) Please revise Table 1 "Hydro Ottawa's Current vs. Proposed Custom Rate Frameworks", to show the 2021-025 Custom IR Framework as originally proposed in EB-2019-0261.

1.0-VECC-5

Reference: Exhibit 1, Tab 3, Schedule 1,

Table 3 – 2026-2030 Required and Proposed Capital Expenditures ($'000 000s)

	2026-2030			
	Required	Proposed	Stretch $	Stretch %
Capital Expenditures	$1,230	$ 1,195	($35)	(2.9%)

a) According to Appendix 2-AB HOL's net capital variance from plan to actual ranged from -6.8% to 55.7% between 2021 and as estimated for 2025. Given the range in variability as between planned and actual capital costs how is stretch of 2.9% meaningful?

1.0-VECC-6

Reference: Exhibit 1, Tab 3, Schedule 1,

a) Please provide the costs of the third party customer engagement surveys completed since the last cost of service application including: Utility Pulse Customer Satisfaction Survey(s); Innovative Research Group (both Satisfaction and customer engagement related directly to the 2026 CIR application).

2.0 RATE BASE AND CAPITAL (EXHIBIT 2)

2.0-VECC -7

Reference: Exhibit 2 Part 1, Tab 1, Schedule 1, Table 16, page 23 of 34

a) For the projects shown in Table 16 *(2021-2025 Overview of Significant In-Service Additions*) please provide median and average variance as between planned and actual capital costs including all projects planned but not undertaken.

b) Please provide the same as in a) but removing all projects which were not undertake (i.e., projects listed as N/A)

2.0-VECC -8

Reference: Exhibit 2, Tab 7, Schedule 1, page 7

Table 6 – Loss from Retirement of Utility and Other Property ($'000s)

UsofA	Net (Gain)/Loss	Historical Years			Bridge Years		TOTAL
		2021	2022	2023	2024	2025	2021-2025
4362	OEB Approved	$ 389	$ 751	$ 323	$ 336	$ 445	$ 2,243
4362	Actual (gain)/loss	$ (202)	$ 1,234	$ (897)	$ (368)	$ (273)	$ (506)
1508	**Variance**	**$ (590)**	**$ 483**	**$ (1,220)**	**$ (704)**	**$ (718)**	**$ (2,749)**

Table 7 – Loss from Retirement of Utility and Other Property ($'000s)

Net (Gain)/Loss	Test Years					TOTAL
	2026	2027	2028	2029	2030	2026-2030
Forecast	$ 167	$ 636	$ 596	$ 609	$ 576	**$ 2,583**

a) Leaving aside 2022, which HOL explains had increased losses as a result of the Derecho, the average retirements up to 2025 were $373,000. Post 2026 the average retirements are $604,000. What explains the much smaller amount of retirements in 2026 of $167,000?

2.0-VECC -9

Reference: Exhibit 2, Tab 5, Schedule 3, page 16

Table 7 - Distribution System Plan Implementation Progress

KPI	Target	2019	2020	2021	2022	2023
DSP Implementation Progress	100 %	84%	89%	92%	90%	75%

a) Please clarify how the above noted table is calculated and relates to Appendix 2-AB. For example, the above table shows that in 2023 only 75% of the DSP was achieved. However, for 2023 Appendix 2-AB shows a variance from plan for total capital expenditures of + 14.1% and 6.9% on a net (of contributions) basis. Please explain the difference.

2.0-VECC -10

Reference: Exhibit 2, Tab 5, Schedule 3, page 47-77

"Based on analyzing the reliability trends between 2019 and 2023, Hydro Ottawa has observed an overall increase in the annual outage duration aspect, despite a decrease in the number of customer interruptions and outage count (pg.66)"

a) Given the proposed large increase in HOL's capital expenditures over the 2026-30 rate plan period, especially with respect to system renewal and service projects, why did HOL choose not to include in its proposal specific metrics aimed at minimizing both the frequency and duration of scheduled outages?

b) If the Board were to require HOL to set scheduled outage targets (number, number of customers impacted, number of customer hours impacted) what range of targets would HOL consider reasonable? Would a single target for the duration of the plan be appropriate or would yearly targets be better associated with the details of the proposed DSP?

2.0-VECC -11

Reference: Exhibit 2, Tab 5, Schedule 4, Attachment E, page 27

"*On May 21, 2022 a historic derecho swept through Hydro Ottawa's service territory. This derecho was one of the most destructive storms in Canadian history with winds up to 190 km/h.1 The storm resulted in over 400 poles that needed to be replaced. In addition, approximately 180,000 customers lost power. Approximately 50 percent of these customers were without power for multiple days. Some customers were without power for over two weeks. The restoration efforts included utilization of 335 contractors2. The storm impacted the entire service territory with wind equivalent to either an EF1 (138-177 km/h) or EF2 (178-217 km/h)winds***."**

a) Were the 400 poles replaced of a standard to withstand EF2 winds?

b) What is the premium per pole (or other transmission asset technology) that provides a guarantee of an asset not failing when confronted with 217km winds?

c) What analysis has HOL undertaken of the cost-benefit efficacy of investments into more resilient (and expensive) assets as compared to a better, more effective and quicker post storm restoration plan?

2.0-VECC -12

Reference: Exhibit 2, Tab

Table 39 - Vehicles Required for Additional Headcount

Vehicle Type	# New Vehicles
Heavy Duty	14
Medium Duty	11
Light Duty	29
Other	1
TOTAL NEW VEHICLES	**55**

a) Using the Table 1 at Exhibit 4, Tab 1, Schedule 3, page 5 or the same table as modified by VECC-37 integratory at Exhibit 4 below, please assign the vehicles by type to the new positions for 2026.

3.0 OPERATING REVENUE (EXHIBIT 3)

3.0-VECC -13

Reference: Exhibit 3, Attachment 3-1-1(B), pages 9-10 and 32 (of 40)
Exhibit 3, Attachment 3-1-1(C), Load Forecast Data-Customers Excel File

Preamble: With respect to the Residential class, Attachment 3-1-1(B) states:
"The customer forecast is based on a monthly regression model that relates the number of customers to a blended economic variable, using both population and gross domestic product (GDP); the correlation between the number of customers and blended economic variable is extremely high at 0.99. This improved methodology is a change from the prior forecast and helps explain the historical changes in customer growth since 2020".

Attachment 3-1-1(C), Res_Custs Coef Tab sets out the variables used in the Residential customer count regression model, their coefficient values and t-stats as follows:

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	39154.421	3002.162	13.042	0.00%
mEcon.Cust	245697.987	2837.162	86.600	0.00%
MA(1)	1.816	0.079	22.917	0.00%
MA(2)	2.070	0.135	15.329	0.00%
MA(3)	1.353	0.135	9.991	0.00%
MA(4)	0.446	0.080	5.587	0.00%

Attachment 3-1-1(B) states:
"The number of residential customers has increased significantly over the last 3 years, driven by increases in population growth and a change in how multi-unit residential buildings are metered. Hydro Ottawa provided Itron data showing the annual reclassification from bulk meters to individual unit meters. Prior to 2019, many multi-unit residential buildings were bulk metered as one commercial account, this has since changed with some units being individually unit metered. This is occurring in the construction of new multi-unit buildings as well as retro fitting existing buildings." (page 9 of 40)

a) Please provide: i) the historic and forecast monthly values used for population and GDP (including sources) and ii) a detailed explanation (along with supporting calculations) setting out the derivation of the monthly values for the blended economic variable (mEcon.Cust) as set out in the Res_Cust Data Tab..

b) Please explain the basis (i.e., what they represent, why they were included, what how the monthly values were determined and what they are) for each of the following variables used in the Residential customer count regression model as shown in the Exhibit 3-1-1(B), page 32: i) MA(1), ii) MA(2), iii) MA(3) and iv) MA(4).

c) The calculation of the predicted values in the Res_Custs BX Tab does not use the MA(1), MA(2), MA(3) and MA(4) explanatory variables (per the regression model). Please provide an excel file that sets out: i) the monthly values (January 2013 through December 2030) for each of the explanatory variables used in the Residential customer count regression model and ii) the calculation of the predicted monthly value based on these values and the coefficients estimated by the regression model.

d) How does the regression model and the resulting customer count forecast for 2026-2030 account for the recent changes in how multi-residential buildings are metered (per Exhibit 3-1-1(B), page 6 of 40).

3.0-VECC -14

Reference: **Exhibit 3, Attachment 3-1-1(B), page 15 (of 40)**
Exhibit 3, Attachment 3-1-1(C), Load Forecast Data-Customers Excel File

Preamble: Attachment 3-1-1(B) states:
"Separate models are estimated for commercial customers. GS50 customers are driven by the number of residential customers. The correlation between GS50 customers and residential customers is 0.97. A simple linear trend model is used

to forecast customers for the GS1500 rate class. The GS1000 and GS5000 customer forecasts are held constant at their October 2024 levels. Table 2-3 shows the commercial average annual customer forecast, excluding the impact of customer reclassification from commercial electrification and large loads."

Attachment 3-1-1(C), GS50_Custs Coef Tab sets out the variables used in the GS<50 customer count regression model, their coefficient values and t-stats as follows:

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	13990.563	237.171	58.989	0.00%
mFcstCal.I	0.035	0.001	45.773	0.00%
mBin.Yr24	-170.981	44.703	-3.825	0.02%
MA(1)	0.849	0.047	18.223	0.00%

Attachment 3-1-1(C), GS1500_Custs Coef Tab sets out the variables used in the GS1500 customer count model, their coefficient values and t-stats as follows:

Variable	Coefficient	StdErr	T-Stat	P-Value
Simple	0.661	0.081	8.204	0.000
Trend	0.003	0.014	0.202	0.840

Attachment 3-1-1(C), StLight_Custs Coef Tab sets out the variables used in the Street Lighting connection count model, their coefficient values and t-stats as follows:

Variable	Coefficient	StdErr	T-Stat	P-Value
Simple	0.847	0.089	9.496	0.000
Trend	0.007	0.022	0.341	0.734

a) Please explain the basis (i.e., what they represent, why they were included, how the monthly values were determined) for each of the following variables used in the GS50 customer count regression model: i) mBinYr24 and ii) MA(1).

b) Please provide the 2013-2030 monthly values for the MA(1) variable used in the GS50 customer count equation, as they are not provided in the GS50_Custs Data Tab.

c) In the GS50_Custs BX Tab (column G) the determination of the predicted GS<50 customer counts use a variable identified as "ARMA". Is this the same as the MA(1) variable used in the GS<50 customer count regression equation?

   i. If not, please provide an excel file that sets out: i) the monthly values (January 2013 through December 2030) for each of the explanatory variables used in the GS<50 customer count regression model and ii) the calculation of the predicted monthly value based on these values and the coefficients estimated by the regression model.

d) Please explain the basis (i.e., what they represent, why they were included, how the monthly values were determined and what they are) for each of the following variables used in the GS1500 customer count model: i) Simple and ii) Trend.

e) Please provide an excel file that sets out: i) the monthly values (January 2013 through December 2030) for each of the explanatory variables used in the GS1500 customer count trend model and ii) the calculation of the predicted monthly forecast counts based on these values and the trend model coefficients.

f) Please explain the basis (i.e., what they represent, why they were included and how the monthly values were determined) for each of the following variables used in the Street Lighting connection count model: i) Simple and ii) Trend.

g) Please provide as excel schedule that set out the determination of the predicted 2013-2030 monthly connection counts for the Street Lighting customer class based on the monthly values for the explanatory variables and the regression equation coefficients.

h) Please explain why, for the GS1000 and GS5000 classes the forecasts for 2026-2030 were held constant at the October 2024 values.

3.0-VECC -15

Reference: **Exhibit 3, page 5**
Exhibit 3, Attachment 3-1-1(B), pages 16-17 and 24 (of 40)
Exhibit 3, Attachment 3-1-1(C), Load Forecast Data-Customers Excel File

Preamble: Attachment 3-1-1(B) states:
"Generalized econometric models are estimated for Large Users, as well as Street Lighting, MU, and DCL. The Large User class is Hydro Ottawa's largest customers, the forecast assumes usage is held constant with adjustments made for anticipated large load requests and eDSM savings. The Street Lighting, MU, and DCL forecasts are not adjusted for eDSM savings." (page 16)

And

"Hydro Ottawa general service commercial rate class customers can be reclassified annually, based on their historical billing demand. This causes annual movements in the number of customers in each general service customer class, billing consumption (kWh) and billing demands (kW) between classes, with customers potentially moving up or down in terms of their demand. Hydro Ottawa provided Itron the actual annual reclassifications which included the most recent November 2024 reclassification. Customer counts, kWh, and billing kW were provided, showing which class the customers previously

belonged to and which class they would fall under starting in November 2024. This data was used to move customer counts, kWh and kW demand from the customers' historical general service class to their current rate class in the forecast. The forecast also captures the impact of one Large User customer being disaggregated into multiple customer accounts in smaller commercial classes." (pages 16-17)

And

"Commercial electrification impacts customers in every commercial class from GS<50 to Large User. With electrification and significant increases in demand, these customers all move into the Large Use rate class." (page 24)

a) Attachment 3-1-1(B) makes reference to the MU rate class. As the forecast 2026-2030 kWh values match, it appears that the MU rate class refers to the USL class (see Exhibit 3-1-1, page 4 and Exhibit 3-1-1(B), page 26). Please confirm that this is the case.

   i. If not confirmed, please explain what customers the class represents and why this rate class is not included in the tables provide in Exhibit 3, page 5 which summarizes the customer/connection forecasts by customer class for 2026-2030.

b) Attachment 3-1-1(B) makes reference to the DCL rate class. As noted in Exhibit 3-1-1, page 8 (Footnote #7) the forecast does not include the Dry Core Transformer Charge. Please confirm that the DCL rate class refers to those customers subject to the Dry Core Transformer Charge and that the associated revenues are included in the Application as part of Other Revenues (as discussed in Exhibit 6).

c) Please explain how the customer/connection count 2026-2030 forecasts were developed for the Large Use, Street Lighting, Unmetered Scattered Load and Sentinel Lighting classes. For each class please provide: i) the basis and relevant statistics for any models used in developing the forecast, ii) the historical and forecast values for any explanatory variables used and iii) the calculation of the predicted values.

d) For each of the GS classes and the LU class please provide a schedule that sets out: i) the initial customer count forecast for 2026-2030 using the approaches described in Exhibit 3, Attachment 3-1-1(B), page 15, ii) the adjustments made due to customer reclassification described in Attachment 3-1-1(B), pages 16-17, iii) the adjustments made due to one Large User customer being disaggregated into multiple customer accounts in smaller commercial classes described in Attachment 3-1-1(B), pages 16-17, iv) the adjustments made due to future electrification as described in Attachment 3-1-1(B), page 24 and v) the resulting final customer count forecast following these adjustments.

   i. If this final customer count forecast by class does not match that set out in Exhibit 3, page 5, please explain why.

e) Please provide a schedule that provides a history of the annual re-classification of customers between the various GS classes and the Large Use class for the period 2013 to 2025 and, for each year, the month the reclassification occurred. For example, the 2013 values would represent the number of customers reclassified out of/into the different customer class in 2013 and the month the reclassification came into effect.

3.0-VECC -16

Reference: **Exhibit 3, Attachment 3-1-1(B)**

Preamble: It is understood that at the time the load forecast was prepared by ITRON actual monthly customer/connection counts were only available up to October 2024.

a) Please provide, in an excel file, the actual monthly customer/connection counts for each customer class from January 2013 to the most recent month where actual data is now available.

3.0-VECC -17

Reference: **Exhibit 3, Attachment 3-1-1(B), page 20 (of 40)**
Exhibit 3, Attachment 3-1-1(C), Res_AvgUse Data Tab (column M)

Preamble: The Application states:
"To capture the impact, select rate class models include a COVID impact variable. This variable is constructed using Google Mobility Report data for the residential, workplace and retail place types for Ontario. Google Mobility Report data tracks daily cell phone locations by place type compared to a pre-COVID baseline. The residential place type active increased while the workplace and retail decreased, this data correlates well to the actual changes in electric sales."

a) Please provide the derivation of the historical values for the COVID impact variable (COVID.Residx) used in the Residential equation.

b) Please explain why, for the actual months of October 2022 through October 2024 the value for COVID.Residx remains constant at 0.186146257773965. One would have expected there to be some fluctuation in actual monthly values.

3.0-VECC -18

Reference: **Exhibit 3, Attachment 3-1-1(B), page 7-11 (of 40)**
Exhibit 3, Attachment 3-1-1(C), Res_AvgUse Data Tab

a) Are the 2013 to 2023 Residential Average Use values set out in Table 2.1 (Exhibit 3-1-1(B), page 11) and the January 2013 to October 2024

Residential Average Use values set out in the Res_AvgUse Data Tab (column C) actual metered values or weather normalized values?

i. If weather normalized, how was each month's actual usage weather normalized?

ii. If actual metered values, how are weather variations captured in modeling so as to result in a weather normalized 2026-2030 forecast for the Residential class?

3.0-VECC -19

Reference: **Exhibit 3, Attachment 3-1-1(B), pages 7-11 and 31 (of 40)**
Exhibit 3, Attachment 3-1-1(C), Res_AvgUse Data Tab

Preamble: The Application states:
"Average use is modeled using a Statistically Adjusted End-Use (SAE) modeling framework. This modeling framework integrates end-use saturation and efficiency trends that capture long-term, end-use, energy trends with monthly weather, number of days, and economic drivers that capture the expected utilization of the end-use stock. End-uses are mapped to heating (XHeat), cooling (XOther), and other uses (XOther)." (page 7 – emphasis added)
Note: It is assumed that the application should read "cooling (XCool)".

a) Please set out how the actual (January 2013-October 2024) values for the XHeat variable were determined for purposes of the Residential model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

b) Please set out how the forecast (November 2024-December 2030) values for the XHeat variable were determined for purposes of the Residential model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XHeat monthly forecast values). As part of the response please indicate how the increased saturation of heat pumps (per Figure 3-5, Exhibit 3-1-1(B), page 22) was factored into the monthly values.

c) Please set out how the actual (January 2013-October 2024) values for the XCool variable were determined for purposes of the Residential model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

d) Please set out how the forecast (November 2024-December 2030) values for the XCool variable were determined for purposes of the Residential model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XCool monthly forecast values). As part of the response please indicate how the increased saturation of heat pumps (per Figure 3-5, Exhibit 3-1-1(B), page 22) was factored into the monthly values.

e) Please set out how the actual (January 2013-October 2024) values for the XOther variable were determined for purposes of the Residential model (i.e.,

the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

f) Please set out how the forecast (November 2024-December 2030) values for the XOther variable were determined for purposes of the Residential model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XOther monthly forecast values).

g) Please explain why the Residential regression model (page 31) has no constant.

h) When assessing the inclusion of a potential explanatory variable in the various regression models used, at what value for the t-statistic does ITRON consider an explanatory variable to be statistically significant?

3.0-VECC -20

Reference: Exhibit 3, Attachment 3-1-1(B), page 11 (of 40), Table 2-1
Exhibit 3, Attachment 3-1-1 (C)-2, Load Forecast Data – kWh, Res_AvgUse Data Tab and Res_AvgUse BX Tab

a) Please demonstrate that the average annual customer use values (2018-2030) set out in Table 2-1 are consistent with the monthly average use values reported in the Res_AvgUse Data Tab and Res_AvgUse BX Tab.

3.0-VECC -21

Reference: Exhibit 3, Attachment 3-1-1(B), pages 11-15 and 33 (of 40)
Exhibit 3, Attachment 3-1-1 (C)-2, Load Forecast Data – kWh, GS50_Sales Data Tab and GS50_Sales BX Tab

a) Did ITRON test the use of a COVID variable in the GS<50 regression model?

   i. If yes, what were the results and why was a COVID variable not used?

   ii. If not, please provide: i) an alternative version of the GS50 model that includes a COVID variable (i.e., coefficients and regression statistics) and ii) the predicted baseline forecast for 2026-2030 based on the resulting equation.

b) Are the January 2013 to October 2024 GS<50 Average Use values set out in the GS50_Sales Data Tab (column C) actual metered values or weather normalized values?

   i. If weather normalized, how was each month's actual usage weather normalized?

   ii. If actual metered values, how are weather variations captured in modeling so as to result in a weather normalized 2026-2030 forecast for the GS<50 class?

c) Please set out how the actual (January 2013-October 2024) values for the

XHeat variable were determined for purposes of the GS<50 model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

d) Please set out how the forecast (November 2024-December 2030) values for the XHeat variable were determined for purposes of the GS<50 model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XHeat monthly forecast values.

e) Please set out how the actual (January 2013-October 2024) values for the XCool variable were determined for purposes of the GS<50 model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

f) Please set out how the forecast (November 2024-December 2030) values for the XCool variable were determined for purposes of the GS<50 model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XCool monthly forecast values).

g) Please set out how the actual (January 2013-October 2024) values for the XOther variable were determined for purposes of the GS<50 model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

h) Please set out how the forecast (November 2024-December 2030) values for the XOther variable were determined for purposes of the GS<50 model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XOther monthly forecast values).

i) Attachment 3-1-1(B) states at page 14 (of 40): "Table 2-2 shows the annual commercial sales baseline forecast for the SAE specified models. This forecast includes the impact of future eDSM but not electrification and large loads." For the GS<50 class please provide a schedule that sets out for the years 2025-2030: i) the baseline forecast per the SAE models (consistent with the GS50_Sales BX Tab (Column C)), ii) the adjustment for future eDSM and iii) the resulting forecast per Table 2-2.

3.0-VECC -22

Reference: Exhibit 3, Attachment 3-1-1(B), pages 11-15 and 35 (of 40)
Exhibit 3, Attachment 3-1-1 (C)-2, Load Forecast Data – kWh, GS1000_Sales Data Tab and GS1000_Sales BX Tab

a) Are the January 2013 to October 2024 GS50 Average Use values set out in the GS1000_Sales Data Tab (column C) actual metered values or weather normalized values?

i. If weather normalized, how was each month's actual usage weather normalized?

ii. If actual metered values, how are weather variations captured in modeling so as to result in a weather normalized 2026-2030 forecast for

the GS1000 class?

b) Please set out how the actual (January 2013-October 2024) values for the XHeat variable were determined for purposes of the GS1000 model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

c) Please set out how the forecast (November 2024-December 2030) values for the XHeat variable were determined for purposes of the GS1000 model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XHeat monthly forecast values.

d) Please set out how the actual (January 2013-October 2024) values for the XCool variable were determined for purposes of the GS1000 model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

e) Please set out how the forecast (November 2024-December 2030) values for the XCool variable were determined for purposes of the GS1000 model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XCool monthly forecast values).

f) Please set out how the actual (January 2013-October 2024) values for the XOther variable were determined for purposes of the GS1000 model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

g) Please set out how the forecast (November 2024-December 2030) values for the XOther variable were determined for purposes of the GS1000 model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XOther monthly forecast values).

h) Please provide the derivation of the historical values for the COVID impact variable (COVID.Comidx) used in the GS1000 equation.

i) Please explain why, for the actual months of October 2022 through October 2024 the value for COVID.Comidx remains constant at 0.197448511631785. One would have expected there to be some fluctuation in actual monthly values.

j) Attachment 3-1-1(B) states at page 14 (of 40): "Table 2-2 shows the annual commercial sales baseline forecast for the SAE specified models. This forecast includes the impact of future eDSM but not electrification and large loads." For the GS1000 class please provide a schedule that sets out for the years 2025-2030: i) the baseline forecast per the SAE models (consistent with the GS1000_Sales BX Tab (Column C)), ii) the adjustment for future eDSM and iii) the resulting forecast per Table 2-2.

3.0-VECC -23

Reference: Exhibit 3, Attachment 3-1-1(B), pages 11-15, 24 and 36 (of 40)
Exhibit 3, Attachment 3-1-1 (C)-2, Load Forecast Data – kWh, GS1500_Sales Data Tab, GS1500_Sale Coef Tab and GS1500_Sales BX Tab

a) Did ITRON test the use of a COVID variable in the GS1500 regression model?

   i. If yes, what were the results and why was a COVID variable not used?

   ii. If not, please provide: i) an alternative version of the GS1500 model that includes a COVID variable (i.e., coefficients and regression statistics) and ii) the predicted baseline forecast for 2026-2030 based on the resulting equation

b) Are the January 2013 to October 2024 GS1500 Average Use values set out in the GS1500_Sales Data Tab (column C) actual metered values or weather normalized values?

   i. If weather normalized, how was each month's actual usage weather normalized?

   ii. If actual metered values, how are weather variations captured in modeling so as to result in a weather normalized 2026-2030 forecast for the GS1500 class?

c) Please set out how the actual (January 2013-October 2024) values for the XHeat variable were determined for purposes of the GS1500 model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

d) Please set out how the forecast (November 2024-December 2030) values for the XHeat variable were determined for purposes of the GS1500 model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XHeat monthly forecast values.

e) Please set out how the actual (January 2013-October 2024) values for the XCool variable were determined for purposes of the GS1500 model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

f) Please set out how the forecast (November 2024-December 2030) values for the XCool variable were determined for purposes of the GS1500 model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XCool monthly forecast values).

g) Please set out how the actual (January 2013-October 2024) values for the XOther variable were determined for purposes of the GS1500 model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

h) Please set out how the forecast (November 2024-December 2030) values

for the XOther variable were determined for purposes of the GS1500 model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XOther monthly forecast values).

i) Please describe the purpose of the AR(1) variable included in the GS1500 model, provide the monthly values for period January 2013 to October 2024 and explain how the monthly values were determined.

j) What is the difference, if any, between the AR(1) variable used in the estimation of the GS1500 model (per the GS1500_Sale Coef Tab) and the ARMA variable (as used in the calculation of column O of the GS1500_Sales BX Tab)?

   i. Please provide the forecast November 2024 to December 2026 values for the AR(1) and ARMA variables.

k) Unlike the GS50 and GS1000 models, the GS1500 model does not include CDM as an explanatory variable. Please explain why as Table 3-1 (Exhibit 3-1-1(B), page 24) indicates that there were historical CDM savings for this class.

l) Attachment 3-1-1(B) states at page 14 (of 40): "Table 2-2 shows the annual commercial sales baseline forecast for the SAE specified models. This forecast includes the impact of future eDSM but not electrification and large loads." For the GS1500 class please provide a schedule that sets out for the years 2025-2030: i) the baseline forecast per the SAE models (consistent with the GS1500_Sales BX Tab (Column C)), ii) the adjustment for future eDSM and iii) the resulting forecast per Table 2-2.

3.0-VECC -24

Reference: Exhibit 3, Attachment 3-1-1(B), pages 11-15, 24 and 37 (of 40)
Exhibit 3, Attachment 3-1-1 (C)-2, Load Forecast Data – kWh, GS5000_Sales Data Tab and GS5000_Sales BX Tab

a) Are the January 2013 to October 2024 GS5000 Average Use values set out in the GS5000_Sales Data Tab (column C) actual metered values or weather normalized values?

   i. If weather normalized, how was each month's actual usage weather normalized?

   ii. If actual metered values, how are weather variations captured in modeling so as to result in a weather normalized 2026-2030 forecast for the GS5000 class?

b) Please set out how the actual (January 2013-October 2024) values for the XHeat variable were determined for purposes of the GS5000 model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

c) Please set out how the forecast (November 2024-December 2030) values

for the XHeat variable were determined for purposes of the GS5000 model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XHeat monthly forecast values.

d) Please set out how the actual (January 2013-October 2024) values for the XCool variable were determined for purposes of the GS5000 model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

e) Please set out how the forecast (November 2024-December 2030) values for the XCool variable were determined for purposes of the GS5000 model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XCool monthly forecast values).

f) Please set out how the actual (January 2013-October 2024) values for the XOther variable were determined for purposes of the GS5000 model (i.e., the detailed calculation including values and sources for each of the inputs and how they were incorporated into the overall calculation).

g) Please set out how the forecast (November 2024-December 2030) values for the XOther variable were determined for purposes of the GS5000 model (i.e., the basis for and the forecast values used for each of the inputs used in calculating XOther monthly forecast values).

h) Unlike the GS50 and GS1000 models, the GS5000 model does not include CDM as an explanatory variable. Please explain why when Table 3-1 (Exhibit 3-1-1(B), page 24) indicates that there were historical CDM savings for this class.

i) The GS5000 model includes a trend variable. Please explain how the historical and forecast monthly values for this explanatory variable were determined.

j) Attachment 3-1-1(B) states at page 14 (of 40): "Table 2-2 shows the annual commercial sales baseline forecast for the SAE specified models. This forecast includes the impact of future eDSM but not electrification and large loads." For the GS5000 class please provide a schedule that sets out for the years 2025-2030: i) the baseline forecast per the SAE models (consistent with the GS5000_Sales BX Tab (Column C)), ii) the adjustment for future eDSM and iii) the resulting forecast per Table 2-2.

3.0-VECC -25

Reference: **Exhibit 3, Attachment 3-1-1(B), pages 16 and 38 (of 40)**
Exhibit 3, Attachment 3-1-1 (C)-2, Load Forecast Data – kWh, GSLrg_Sales Data Tab and GSLrg_Sales BX Tab
Exhibit 3-1-1, page 8 (Table 5)

Preamble: The Application states:
"Generalized econometric models are estimated for Large Users, as well as Street Lighting, MU, and DCL. The Large User class is Hydro Ottawa's largest customers, the forecast assumes usage

is held constant with adjustments made for anticipated large load requests and eDSM savings."

a) Did ITRON test the inclusion of a HDD-related explanatory variable for the Large User class model?

   i. If yes, what were the results and why was it excluded?

   ii. If not, please provide: i) an alternative version of the GSLrg model that includes an HDD-related variable (i.e., coefficients and regression statistics) and ii) the predicted baseline forecast for 2026-2030 based on the resulting equation

b) Please describe how the historical and forecast values for the "wgtCDD18GSLrg" variable were determined.

c) Unlike the GS50 and GS1000 models, the GSLrg model does not include CDM as an explanatory variable. Please explain why when Table 3-1 (Exhibit 3-1-1(B), page 24) indicates that there were historical CDM savings for this class.

d) The baseline 2026-2030 forecast values provided in Table 5 for the Large Use class do not match the sum of the predicted monthly values as set out in the GSLrg_Sales BX Tab (Column C) for the same year. Please explain why.

3.0-VECC -26

Reference: **Exhibit 3, Attachment 3-1-1(B), pages 16 (of 40)**
Exhibit 3, Attachment 3-1-1 (C)-2, Load Forecast Data – kWh, StLight_Sales Data Tab, StLight_Sales Coef Tab and StLight_Sales BX Tab
Exhibit 3, Attachment 3-1-1 (C)-2, Load Forecast Data – kWh, MU_Sales Data Tab, MU_Sales Coef Tab and MU_Sales BX Tab

Preamble: The Application states:
"Generalized econometric models are estimated for Large Users, as well as Street Lighting, MU, and DCL. … The Street Lighting, MU, and DCL forecasts are not adjusted for eDSM savings."

a) With respect to the Street Lighting model (StLight_Sales Coef Tab), please explain the basis for the "mBin.TrendVar" variable and provide the historical and forecast values.

b) With respect to the MU model (MU_Sales Coef Tab), please the rationale/basis for each of the variables used (i.e., "Simple", "Trend" and "Seasonal") and provide the historical and forecast values for the variable.

c) Please explain how the sales forecast for the Sentinel class was developed.

d) Please provide a table summarizing for each of the Street Lighting, USL and Sentinel classes: i) the actual/forecast annual sales (kWh) for 2013 to 2030,

ii) the actual/forecast annual connections for 2013 to 2030 and iii) the average annual usage per connection for each of the years 2013-2030.

3.0-VECC -27

Reference: **Exhibit 3, Attachment 3-1-1(B), pages 16-17 and 24 (of 40)**
Exhibit 3, Attachment 3-1-1(C), Load Forecast Data- Customers Excel File

Preamble: Attachment 3-1-1(B) states:
"Hydro Ottawa general service commercial rate class customers can be reclassified annually, based on their historical billing demand. This causes annual movements in the number of customers in each general service customer class, billing consumption (kWh) and billing demands (kW) between classes, with customers potentially moving up or down in terms of their demand. Hydro Ottawa provided Itron the actual annual reclassifications which included the most recent November 2024 reclassification. Customer counts, kWh, and billing kW were provided, showing which class the customers previously belonged to and which class they would fall under starting in November 2024. This data was used to move customer counts, kWh and kW demand from the customers' historical general service class to their current rate class in the forecast. The forecast also captures the impact of one Large User customer being disaggregated into multiple customer accounts in smaller commercial classes." (pages 16-17 – emphasis added)

a) For each of the GS classes and the LU class please provide a schedule that sets out: i) the initial customer class kWh baseline forecast for 2026-2030, ii) the adjustments made to each customer classes forecast 2026-2030 kWhs due to customer reclassification and the impact of one Large User customer being disaggregated into multiple customer accounts in smaller commercial classes as described in Attachment 3-1-1(B), pages 16-17, and iii) the final resulting 2026-2030 kWh forecast for each class prior to the adjustments made for new DSM/CDM, electrification and large loads.

3.0-VECC -28

Reference: **Exhibit 3-1-1, pages 15-18**
Exhibit 3, Attachment 3-1-1(B), pages 24-25 (of 40)
Statistics Canada

Preamble: The Application states:
"However recent EV sales are not as high as anticipated, therefore major automakers are reconsidering (decreasing) their near term strategies on production capacity, model lineup, and

marketing initiatives. Hydro Ottawa has incorporated these revised industry trends into the forecasting of EV adoptions." (page 16)
And
"Based on percentage of population, Hydro Ottawa has estimated 5.4% of total vehicles in Ontario reside in Hydro Ottawa's service territory. This percentage was applied to new LDEV registrations for years 2017 to 2023 in Ontario to estimate the total number of LDEV in Hydro Ottawa's territory. The 2021-2023 average annual growth trend of 0.8% was used to estimate the total LDEV for 2024-2030." (page 17)
And
"For Bridge and Test Years Hydro Ottawa apportioned the estimate of LDEVs to different rate classes by analyzing data from the Ministry of Transportation, Zero Emission Vehicle Infrastructure Program (ZEVIP) and customer data. Table 12 outlines the 2024-2030 LDEV MWh forecast." (page 18)

Attachment 3-1-1(B) states:
"These plans include electrifying light-duty transportation, heating/cooling and other reasons known/unknown to Hydro Ottawa. Hydro Ottawa provided Itron with incremental annual commercial electrification MWh and light-duty electric vehicle (EV) MWh estimates by class of customer. Monthly MWh series were generated and the cumulative MWh as of October 2024 were added to the respective classes."

Statistics Canada also reports new LDEV registrations by census metropolitan area (New motor vehicle registrations, quarterly, by geographic level)

a) Please explain how Hydro Ottawa incorporated the revised industry trends (per page 16) into its forecast of EV adoption of 2024-2030.

b) Please explain (with supporting calculations) how the 2024-2030 forecast of total LDEVs in Table 11 was developed based on the average annual growth trend of 0.8%.

c) Please confirm that Table 11 represents the total number of LDEVs in the Ottawa area for each year and not the number of new LDEVs in the Ottawa area each year.

d) Please provide the breakdown of total LDEVs (per Table 11) by customer class for the years 2024-2030.

e) Please explain what customer data was used to help apportion the forecast LDEVs to the rate classes (per page 18).

f) Please explain (with supporting calculations) how the MWh values in Table 12 were derived based on the LDEV breakdown by customer class.

g) Please clarify whether Table 12 represents the total MWh associated with all LDEVs in the Ottawa area for each year or the incremental MWh due to

new LDEV registrations in each year.

h) Please confirm that Table 3-3 (Exhibit 3-1-1(B)) represents the incremental LDEV load that was added to each customer class' baseline load forecast for 2025-2030.

   i. If not confirmed, please provide a schedule setting out the incremental LDEV load that was added to each customer class' baseline load forecast for 2025-2030 and explain (with supporting calculations) how the values were derived.

i) As noted in the Preamble, Statistics Canada also reports new LDEV registrations by census metropolitan area. For the Ontario part of the Gatineau-Ottawa metropolitan area, total new LDEV registrations over the 2017-2023 period are reported as 12,487 (as opposed to the 9,344 estimate used by Hydro Ottawa). Why didn't Hydro Ottawa use the LDEV registrations reported by Statistics Canada for the Ontario part of the Gatineau-Ottawa metropolitan area as opposed to estimating the registrations based on Ottawa's percentage of the provincial population and total Ontario LDEV registrations?

3.0-VECC -29

Reference: **Exhibit 3-1-1, pages 9 and 14-15**
Exhibit 3, Attachment 3-1-1(B), pages 24-25 (of 40)
Exhibit 1-3-1, page 2

Preamble: The Application states:
"Hydro Ottawa's revenue load forecast includes electrification and large load requests based on future customer initiatives aimed at decarbonization and electrification, as well as anticipated commercial and residential transportation electrification." (page 9)
And
"This surge in public sector electrification is evident in Hydro Ottawa's observed increase in incremental load demand from federal entities including Crown corporations and agencies projected for the 2024 to 2035 timeframe. Prior to specific large load requests, these customers are in the General Service (GS) > 50 to 4,999 kW class; after an extensive service upgrade request, these Customers are anticipated to be reclassified to the Large Use rate class. As noted above, this reclassification is observed in Tables 7 and 8 of the Electrification and Large Load energy and demand sales forecast." (page 14)

Attachment 3-1-1(B) states:
"Commercial electrification impacts customers in every commercial class from GS<50 to Large User. With electrification and significant increases in demand, these customers all move into the Large Use rate class."

a) Exhibit 1-3-1 (page 2) sets out three different categories of large load requests: i) Signed Offer to Connect, ii) Submitted Load Summary Form and iii) Inquiries. Which categories has Hydro Ottawa included in its forecast commercial electrification impacts?

   i. Please provide a revised version of Figure 1 (Exhibit 1-3-1, page 2) that reflects the load requests incorporated in the 2026-2030 load forecast.

b) Does the Large User electrification forecast set out in Table 3-4 (Exhibit 3-1-1(B), page 25 (of 40)) include not only the incremental load due to electrification but the "baseline" load for the associated customers that will now be Large Use load as a result of the customers' reclassification.

   i. If confirmed, please indicate for each of the years 2024-2030 how much of the load shown in Table 3-4 is: i) additional load due to electrification versus ii) load reclassified to the Large Use class.

   ii. If not confirmed, provide a schedule that sets out for each of the years 2024-2030: i) the additional load due to electrification, ii) the load reclassified to the Large Use class and iii) the total increase in Large Use load.

c) Please provide a schedule that breaks down the 2024-2030 Electrification And Large Load Energy Requests by Customer Class as set out in Table 7 (Exhibit 3-1-1, page 9) for each customer class as between: i) the impact due to LDEV load and ii) the impact due to commercial electrification.

3.0-VECC -30

Reference: **Exhibit 3-1-1, pages 19-21**
Exhibit 3, Attachment 3-1-1(B), pages 23-24
- **IESO's 2021-2024 CDM Framework (dated December 15, 2022).**
IESO 2023 Efficiency Report (2021-2024 Conservation and Demand Management Framework)

Preamble: Attachment 3-1-1 states:
"Ontario's Minister of Energy and Electrification approved a new 12-year $10.9 billion eDSM framework that came into effect January 1, 2025 and takes place after the current 2021-2024 CDM Framework ends." (page 19)
And
"For 2025-2029 Hydro Ottawa estimated provincial wide annual energy efficiency savings of 2%, 3%, 4%, 5%, 5.5% respectively then 6% from 2030 through to 2035 across various programs with total demand savings of 3,000 MW as announced by the 33 Minister of Energy and Electrification.
Hydro Ottawa's estimated portion of centrally administered programs' net energy and demand savings were based on

IESO's Final Verified 2017 CDM Summary Report proportions for the years 2015 to 2017." (page 19)
And
"Schedule 9-1-5 - LRAM Variance Account provides detailed information on other assumptions related to achieved and/or projected energy savings in the period 2020 to 2025 by Hydro Ottawa customers, as well as information for claimed historical and projected reductions in electricity consumption and demand. The historical energy savings were consistently used to create the Bridge and Test year revenue load forecast as well as amounts recorded into the Lost Revenue Adjustment Mechanism Variance Account (LRAMVA). As noted above, energy savings for 2026-2030 used either the same assumptions or, where available, updated information from EMV reports." (page 20)

Attachment 3-1-1(B) states:
"Estimated historical CDM savings are directly incorporated into the estimated rate class sales forecast models as a separate model variable. In the residential average use model CDM is on a per customer basis and in the commercial models on a total MWh savings basis. These CDM variables are held constant at their October 2024 levels. Cumulative incremental new eDSM is then subtracted from the model results to arrive at the eDSM adjusted forecast."
And
"The CDM coefficient reflects the CDM savings not already captured in the SAE model structure. If none of the CDM savings were captured by the SAE specification, we would expect the coefficient on EDM to be -1.0. If all the CDM impacts were already captured by the model the coefficient would be close to 0 or statistically insignificant."
And
"Sales impact from future eDSM savings are derived by subtracting cumulative new eDSM savings as of October 2024 from the forecast model results. Table 3-2 shows the annual historical CDM and forecasted eDSM savings which are used in the forecast."

a) With respect to Table 3-2 (Exhibit 3-1-1(B), page 24 of 40), please provide a schedule for each rate class that sets out for, each of the years shown (i.e., 2013-2030), the contribution to the year's cumulative saving made by CDM program savings in that year and in each of the preceding years. (For example, for 2030 the schedule for each class would show the savings in 2030 attributable to programs from each of the years 2013 to 2030)

   i. Please also provide a similar schedule for the total cumulative CDM savings in each year (2013-2030).

   ii. Please indicate and provide the sources for the savings used for the 2013-2019 CDM programs.

b) Please confirm that Schedule 9-1-5 includes CDM savings for the program years 2020-2023 (and not 2024 as indicated in the Application).

c) Please demonstrate that the savings from 2020-2023 programs used in the derivation of Table 3-2 are consistent with the values set out in Schedule 9-1-5.

   i. With respect to Schedule 9-1-5, please indicate and provide the sources for the 2020-2023 program savings attributed to: i) the Conservation First Framework and ii) the Interim Framework.

d) Schedule 9-1-5 refers to savings from programs initiated as part of the "New Framework". Please indicate whether the "New Framework" refers to the IESO's 2021-2024 CDM Framework (dated December 15, 2022).

   i. If yes, please provide a schedule that set outs how the savings shown in Schedule 9-1-5 (Persistence Report Tab) as being attributable to 2020-2023 programs were derived from the annual 2021-2023 savings targets in the IESO's 2021-2024 CDM Framework.

   ii. If yes, what impact does the IESO's determination that savings from 2021-2023 programs only achieved 76% of planned savings (per the IESO's 2023 Efficiency Report, page 23) have on: i) the CDM saving values used by Hydro Ottawa from 2021-2023 programs, ii) the overall CDM savings set out in Table 3-2 and iii) Hydro Ottawa's 2026-2030 load forecast?

   iii. If not, please indicate and provide the source for the New Framework savings. Also, please provide a schedule that set outs how the savings shown in Schedule 9-1-5 (Persistence Report Tab) as being attributable to 2021-2023 programs based on this New Framework.

e) It is noted that Schedule 9-1-5 (Persistence Report Tab) only provides persisting savings for individual 2020-2023 programs through to a year between 2024 to 2027, depending on the program. For those years (up to 2030) where no persisting savings from 2020-2023 programs are shown, what savings did Hydro Ottawa assume for purposes of preparing Table 3-2?

f) Please provide the derivation of the 2024-2030 savings from 2024 programs used in developing Table 3-2. As part of the response, please indicate whether the derivation relied on the savings set out in the IESO's 2021-2024 CDM Framework or some other source(s) and, if another source was used, please provide.

g) Please provide the following:

   i. The values used by Hydro Ottawa for provincial energy savings for the period 2025-2030 from programs implemented in 2025-2030 and explain (with supporting calculations) how they were derived.

   ii. The derivation of Hydro Ottawa's share of the provincial savings for the period 2025 to 2030 from programs implemented in 2025-2030 for purposes of developing Table 3-2.

3.0-VECC -31

Reference: **Exhibit 3-1-1, pages 19-21**
Exhibit 3, Attachment 3-1-1(B), pages 23-24
Exhibit 3, Attachment 3-1-1(C)-2. Load Forecast Data – kWh

Preamble: Exhibit 3-1-1 states:
"Ontario's Minister of Energy and Electrification approved a new 12-year $10.9 billion eDSM framework that came into effect January 1, 2025 and takes place after the current 2021-2024 CDM Framework ends." (page 19)
And
"For 2025-2029 Hydro Ottawa estimated provincial wide annual energy efficiency savings of 2%, 3%, 4%, 5%, 5.5% respectively then 6% from 2030 through to 2035 across various programs with total demand savings of 3,000 MW as announced by the 33 Minister of Energy and Electrification.
Hydro Ottawa's estimated portion of centrally administered programs' net energy and demand savings were based on IESO's Final Verified 2017 CDM Summary Report proportions for the years 2015 to 2017." (page 19)
And
"Schedule 9-1-5 - LRAM Variance Account provides detailed information on other assumptions related to achieved and/or projected energy savings in the period 2020 to 2025 by Hydro Ottawa customers, as well as information for claimed historical and projected reductions in electricity consumption and demand. The historical energy savings were consistently used to create the Bridge and Test year revenue load forecast as well as amounts recorded into the Lost Revenue Adjustment Mechanism Variance Account (LRAMVA). As noted above, energy savings for 2026-2030 used either the same assumptions or, where available, updated information from EMV reports." (page 20)

Attachment 3-1-1(B) states:
"Estimated historical CDM savings are directly incorporated into the estimated rate class sales forecast models as a separate model variable. In the residential average use model CDM is on a per customer basis and in the commercial models on a total MWh savings basis. These CDM variables are held constant at their October 2024 levels. Cumulative incremental new eDSM is then subtracted from the model results to arrive at the eDSM adjusted forecast." (
And
"The CDM coefficient reflects the CDM savings not already captured in the SAE model structure. If none of the CDM savings were captured by the SAE specification, we would expect the coefficient on EDM to be -1.0. If all the CDM impacts were already

captured by the model the coefficient would be close to 0 or statistically insignificant."
And
"Sales impact from future eDSM savings are derived by subtracting cumulative new eDSM savings as of October 2024 from the forecast model results. Table 3-2 shows the annual historical CDM and forecasted eDSM savings which are used in the forecast."

a) For each of the Residential, GS50 and GS1000 classes please provide a schedule that sets out and explains the derivation of the values for the monthly CDM variable used in estimation of their respective regression models (per Exhibit 3-1-1(B), pages 31, 33 and 35 (of 40)).
   i. Please demonstrate that, in each case, the derivation of the monthly values is consistent with the values shown in Table 3-2.

b) It is noted that for the Residential, GS50 and GS1000 classes the baseline kWh forecast the CDM variable is held constant at the October 2024 value in subsequent months (per Exhibit 3-1-1(C)-2. Load Forecast Data – kWh). Please explain why the post October 2024 values do not include any further loss in the persistence of these savings.

c) Please confirm that Table 13 (Exhibit 3-1-1, page 21) represents the future eDSM savings for each customer class that are subtracted from the class' forecast model results.
   i. If confirmed, please provide a schedule for each customer class that sets out and explains the calculation of the future eDSM savings for the years 2025-2030 to be subtracted from the class' forecast model results (i.e., the values in Table 13)
   ii. If not confirmed, please provide a schedule for each customer class that sets out the calculation of the future eDSM savings for the years 2025-2030 to be subtracted from the class' forecast model results.

d) For those customer classes where the "model" used to determine the baseline load forecast did not include CDM as an explanatory variable (i.e., GS1500, GS5000 and Large Use), since the CDM associated with each class increased over the 2013-2024 period (per Table 3-2), would it be reasonable to assume that the baseline forecast for 2025-2030 includes further increases in CDM savings?
   i. If not, why not?
   ii. If yes, how has this been accounted for in the determination of the adjustments made for future eDSM savings?

3.0-VECC -32

Reference: Exhibit 3, Attachment 3-1-1(B), page 26 (of 40) (Table 3-5)
Exhibit 3-1-1, page 4 (Table 1)

a) With respect to Table 3-5, for each of the Residential, GS and Large Use customer classes please provide as schedule that sets out for the years 2024-2030: i) the baseline forecast kWhs per the relevant model, ii) the impact of customer reclassification (including and the impact of one Large User customer being disaggregated into multiple customer accounts in smaller commercial classes), iii) the impact of incremental LDEV loads, iv) the impact of electrification, v) the impact of new eDSM savings and vi) the proposed load forecast (i.e., sum of items (i) through (iv)).

i. If item (v) does not reconcile with Table 1, page 4 please explain why.

3.0-VECC -33

Reference: Exhibit 3-1-1, page 8 (Table 6) and 21 (Table 14)
Exhibit 3-1-1(B), page 16 (of 40)

Preamble: Exhibit 3-1-1(B) states:
"Several commercial rate classes include a billing demand component. Billing demand is a measure of a customer's highest hourly demand over the billing period. Monthly billing demand regression models are estimated for each rate class. Demands are modeled as a function of monthly sales and monthly binary variables. The models are estimated with actuals from January 2018 to October 2024. The billing demand forecast includes the impact of eDSM savings but not electrification and large loads. Table 2-4 shows the annual rate class baseline billing demand forecast."

a) In using the models to forecast the 2025-2030 billing demands for the relevant commercial rates did the forecast sales (kWh) used include the impact of new eDSM?

i. If not, how were the impacts of new eDSM on customer class billing demands determined for purposes of Table 14?

b) Was the forecast billing demand for the Large User class determined using the same approach as described for the commercial (i.e., GS) rates classes.

i. If not, how was the billing demand forecast for the Large User class determined?

c) Please confirm that Table 2-4 includes the impact of customer reclassification (including the impact of one Large User customer being disaggregated into multiple customer accounts in smaller commercial classes).

i. If not, please provide a revised version of Table 2-4 that includes the impact of customer reclassification.

d) For each of the demand billed commercial (GS) rate classes and the Large Use class please provide a schedule that sets out for each of the years 2018-2030: i) the actual/forecast kWh sales (where the forecast sales exclude electrification and large loads), ii) the actual/forecast billing kW (where the forecast amounts exclude the impact of electrification and large loads) and iii) the ratio of the item (ii) divided by item (i). Note: Both the kWh and the kW forecasts should include the impact of customer classification and future eDSM but exclude the impact of electrification and large loads.

e) With respect to Table 6 (Exhibit 3-1-1, page 8), please explain how the billing demand forecast for each of the Street Lighting, Sentinel Lighting and Standby classes was determined.

3.0-VECC -34

Reference: Exhibit 3-1-1, pages 4, 15, 21

Preamble: Exhibit 3-1-1 states:
"actual EV hourly load profiles were used to forecast future impact of EVs on both customer and system peak demands." (page 15).

a) How were the EV load profiles for each customer class determined (i.e., what "actual" load profile data was used to determine the profiles)?

b) Please provide the typical daily EV load profile used for each customer class. Note: If the load "daily" load profiles vary materially by weekday versus weekend or by month please provide the daily curves for each month and/or by weekday vs. weekend.

c) For each of the demand billed rate classes please provide a schedule that sets out for each of the years 2025-2030 the following: i) the forecast billing demand consistent with the model forecasts, ii) the adjustment to account for customer reclassification, ii) the adjustment to account for the impact of new eDSM, iii) the adjustment to account for incremental LDEV load, iv) the adjustment to account for electrification and large loads and v) the resulting forecast billing demand (i.e., the sum of items (i) through (iv)). per Table 2, page 4).

   i. If Item (v) does not reconcile with the values in Table 2, page 4 please explain why.

4.0 OM&A (EXHIBIT 4)

4.0 -VECC -35

Reference: Exhibit 4 Appendix 2-JC

a) Please provide a more detailed breakdown of OM&A programs by USoA account (i.e. as per the USofA Accounts included in Programs). Please include the account descriptor (e.g. Account 5045 refers to "Underground Distribution Lines and Feeders")

4.0 -VECC -36

Reference: Exhibit 4-2-5, page 2

b) How were the annual LEAP contributions for each of the year 2021-2026 established?

c) How will the annual LEAP contributions for 2027-2030 be established?

4.0 -VECC -37

Reference: Exhibit 4, Tab 1, Schedule 3, Table 1, page 5

Table 1 - New Positions by Appendix 2-JC OM&A Programs

	Bridge Years		Test Years					Total
	2024	2025	2026	2027	2028	2029	2030	
Metering	3		3	2				8
Engineering & Design	17		22	13	4		2	58
Distribution Operations[1]	22		43	21				86
Customer Billing			1					1
Customer & Community Relations			1					1
Information Management & Technology	2		5					7
Safety, Environment & Business Continuity	2		4		1			7
Human Resources	1		2					3
Finance	1			1	1	1		4
Regulatory Affairs	2							2
TOTAL	**50**		**81**	**37**	**6**	**1**	**2**	**177**

a) Please provide a table, similar to Table 1 (New Positions by Appendix 2-JC OM&A Programs) for all positions in each year 2021 through 2030 but shows the total number of position (as compared to the incremental positions in the existing table). Please add any needed rows/categories so that the new table sums to the same total number of annual FTEs as shown in Appendix 2-K.
b) Is it actually the case that HOL has not and will not be hiring any persons in 2025. If so please explain why in light of the lengthy explanations as to the pressing need for additional employees set out in the evidence.

4.0 -VECC -38

Reference: Exhibit 4, Tab 2, Schedule 4, page 2

Table 1 - On-going Regulatory Costs 2021-2026 ($000s)[3]

Regulatory Costs	Historical			Bridge		Test
	2021	2022	2023	2024	2025	2026
Compensation and Other	$ 977	$ 1,131	$ 1,047	$ 1,216	$ 1,318	$ 1,349
OEB Annual Assessment	$ 1,354	$ 1,558	$ 1,724	$ 1,930	$ 2,162	$ 2,164
Other Regulatory Memberships	$ 157	$ 156	$ 162	$ 168	$ 173	$ 175
Section 30 Costs	$ 63	$ 82	$ 79	$ 100	$ 90	$ 75
Total	**$ 2,551**	**$ 2,928**	**$ 3,011**	**$ 3,414**	**$ 3,743**	**$ 3,762**

a) Please update the table to provide 2024's actual OEB annual assessment cost (if not already the case).
b) Please explain the nature of "other Regulatory Memberships".
c) Does the OEB bill on a semi-annual basis? If so please provide the actual 2025 amount billed to date.
d) How did HOL estimate the 2026 Section 30 costs?

4.0 -VECC -39

Reference: Exhibit 4, Tab 2, Schedule 2

a) If HOL is a member of the Electricity Distributor Association (EDA) please provide the annual membership fees for the 2021 to 2026 (test) period.
b) If HOL purchases insurance from MEARIE please provide the annual fees paid for the 2021 to 2026 (test) period.

4.0 -VECC -40

Reference: Exhibit 4, Tab 2, Schedule 1

Table 3 – Summary of Shared Services Provided by Hydro Ottawa 2021-2026 ($'000s)

Provided By	Provided To	OEB Approved	Historical Years			Bridge Years		Test Year
		2021	2021	2022	2023	2024	2025	2026
Hydro Ottawa	Hydro Ottawa Holding Inc.	$1,487	$1,161	$1,386	$1,335	$1,421	$1,480	$1,583
Hydro Ottawa	Hydro Ottawa Capital Corporation	$1,602	$1,352	$1,662	$2,021	$1,801	$1,740	$1,421
Hydro Ottawa	Hydro Ottawa Energy Services Inc.	$1,712	$1,261	$1,298	$1,528	$1,676	$1,709	$1,777
Subtotal of Shared Services to Hydro Ottawa Affiliates		**$4,800**	**$3,775**	**$4,346**	**$4,884**	**$4,898**	**$4,929**	**$4,780**
Hydro Ottawa	Conservation First Framework Wind Down	$35	$64	$6	$3	$0	$0	$0
Total		**$4,835**	**$3,839**	**$4,352**	**$4,887**	**$4,898**	**$4,929**	**$4,780**

Table 4 – Summary of Shared Corporate Services Received by Hydro Ottawa 2021-2026 ($'000s)

Provided By	Provided To	OEB Approved[1]	Historical Years			Bridge Years		Test Year
		2021	2021	2022	2023	2024	2025	2026
Hydro Ottawa Holding Inc.	Hydro Ottawa	$3,816	$4,017	$5,018	$6,433	$6,893	$7,436	$7,712
Hydro Ottawa Holding Inc.	Conservation First Framework	$11	$14	$5	$7	$0	$0	$0
TOTAL		**$3,827**	**$4,031**	**$5,023**	**$6,439**	**$6,893**	**$7,436**	**$7,712**

a) For each category, other than the Conservation First Framework, please provide the annualized the FTEs for each employed working for HOL.

b) For each category, other than the Conservation First Framework, please show the proportion of the costs that are labour related.

4.0 -VECC -41

Reference: Exhibit 4, Tab 1, Schedule 3, Attachment B

Table 1 - Annual Attrition Rate 2019-2024

Year	2019	2020	2021	2022	2023	2024
Attrition Rate	6.86%	7.19%	5.73%	7.39%	9.21%	5.61%

Table 2 - Internal Movements: 2019-2024

Year	2019	2020	2021	2022	2023	2024
Number of Internal Movements	15	17	26	37	47	62

a) For positions which were not filled by internal movements what is the annual average and median time for a vacant position to be filled?

b) Please provide a table, similar to Table 1 (New Positions by Appendix 2-JC OM&A Programs) for all positions in each year 2021 through 2030 but shows the total number of position (as compared to the incremental positions shown in the existing table). Please add any needed rows/categories so that the new table sums to the same number of FTEs shown in Appendix 2-K.

4.0 -VECC -42

Reference: Exhibit 4, Tab 1, Schedule 3

Table 10 – 2024-2026 - Reconciliation of Positions to FTEs in Appendix 2K[10]

	Bridge Years		Test Year
	2024	2025	2026
Number of Full-Time Permanent Positions	667	667	748
Vacancy Assumption	10%	8%	8%
Vacancy Assumption translated into FTEs	(69)	(56)	(60)
Number of FTEs Sub total	**598**	**611**	**688**
Temps and Part Time	30	30	28
Number of FTEs (Appendix 2K)	**628**	**641**	**716**

a) HOL's plan calls for the hiring of 81 full time positions in 2026. How many full time positions has HOL hired in each of the years 2021 through 2025?

b) From the time a position is approved by management for hiring what is the

normal timeline for successful recruitment (e.g. job specification review, advertisement, short list selection, secondary interviews or selection, offer and arrival for work).

c) Do line managers (i.e. managers not from human resource) required to carry out interviews for employees in their departments?

d) Please provide the annual vacancy rate for 2021 to 2025 for full time positions (if not the same as the attrition rate shown 4-1-3 Attachment B page 10)

5.0 COST OF CAPITAL (EXHIBIT 5)

5.0-VECC-43

Reference: Exhibit 5, Tab 1, Schedule 1, page 4 Exhibit 4, Tab 2, Schedule 1, page 6

Table 4 – Summary of Shared Corporate Services Received by Hydro Ottawa

2021-2026 ($'000s)

Provided By	Provided To	OEB Approved[1]	Historical Years			Bridge Years		Test Year
		2021	2021	2022	2023	2024	2025	2026
Hydro Ottawa Holding Inc.	Hydro Ottawa	$3,816	$4,017	$5,018	$6,433	$6,893	$7,436	$7,712
Hydro Ottawa Holding Inc.	Conservation First Framework	$11	$14	$5	$7	$0	$0	$0
TOTAL		**$3,827**	**$4,031**	**$5,023**	**$6,439**	**$6,893**	**$7,436**	**$7,712**

"*Hydro Ottawa Capital Corporation issues long-term debt to support the financing requirements of Hydro Ottawa*."

a) Does Hydro Ottawa Capital Corporation apply any fee to the debt issuances? If yes please explain/show the costs for each Promissory Note shown in Appendix 2-OB for the year 2026.

b) Please explain the relationship (if any) between Hydro Ottawa Holding Inc. and Capital Corporation.

c) Specifically, please describe the position of any employees who undertake work for both Holdings, Capital and the regulated utility HOL.

d) Are any of the fees in 2026 charged by Holding Inc. in relation to financing debt services? If yes please describe these services.

e) For whom else does Hydro Ottawa Capital Corporation raise debt for?

f) What is the proportion of Capital Corporation debt is currently held by HOL?

5.0-VECC-44
Reference: Attachment 6-3-1(A) – OEB Appendix 2-H

a) Please provide the actual a revised version of Appendix 2-H that includes the actual interest rate for the two tranches of debt notes as forecast but raised prior to July 3 2025 (i.e. 3-Feb-25 and 2-Jul-25).

6.0 REVENUE REQUIREMENT (EXHIBIT 6)

6.0-VECC-45

Reference: Attachment 6-3-1(A) – OEB Appendix 2-H

b) Please provide a revised version of Appendix 2-H that includes the 2024 actual values.

c) With respect to Account #4210, please provide the details supporting the 2023, 2024 (actual), 2025, 2026, 2027, 2028, 2029, and 2020 Pole Attachment Revenues (i.e. number of poles and annual rate used).

d) With respect to Account #4210, please provide the details supporting the 2023, 2024 (actual), 2025, 2026, 2027, 2028, 2029, and 2020 Duct Rental Revenues (i.e. Units billed and annual rate used per unit).

e) With respect to Account #4362, please explain how the forecast 2025-2030 values for each of the following were derived: i) Scrap Sales and Inventory Adjustments and ii) Net Book Value and Proceeds.

6.0-VECC-46

Reference: Exhibit 6-3-2, page 3-4

Preamble: The Application states:
"Table 2 provides a summary of the forecasted revenue expected for SSCs for 2026-2030. Each SSC is forecasted based on the rate factored by the estimated volume."

a) Please provide a schedule that for each of the specific services covered by the SCCs where Hydro Ottawa has proposed rates for 2026-2030 that sets

out the actual billing volumes for 2023 and 2024 along with the forecast billing volumes for 2025-2030.

b) Please each of these services please also explain how Hydro Ottawa derived the forecast number of billing units for 2025-2030.

c) Do the OM&A costs included in the determination of Hydro Ottawa's proposed 2026-2030 distribution rates include any costs associated with providing the specific services for which Hydro Ottawa is proposing there be a separate charge in 2026-2030?

   a. If yes, please identify such OM&A costs for each of the years.

6.0-VECC-47

Reference: **Exhibit 6-3-1, pages 4-5**
Attachment 6-3-1(A) – OEB Appendix 2-H

Preamble: The Application states:
"In 2021, Hydro Ottawa's actual total Other Revenue was $1.6M lower than the OEB Approved amount, primarily in Other Income & Deductions. This variance was driven by a net loss in Services to Third Parties, attributed to increased costs and the non-billable activities. Layout volumes increased significantly, but the associated costs were not offset by revenue as many customers did not proceed with their projects."

Appendix 2-H shows that actual Costs and Expenses of Merchandising (USOA #4330) have exceeded Revenue from Merchandise (USOA #4315) in each of the years reported. Furthermore, Costs are forecasted to exceed revenues in each of the year 2024-2030.

a) Please explain more fully why, in each of the years 2021-2023, Costs and Expenses of Merchandising (USOA #4330) have exceeded Revenue from Merchandise (USOA #4315).

b) Why is Hydro Ottawa forecasting that Costs and Expenses of Merchandising (USOA #4330) will continue to exceed Revenue from Merchandise (USOA #4315) over the period 2026-2030?

c) What changes would Hydro Ottawa have to make in either approach to providing or costing the related services in order either reduce or eliminate the variance where costs exceed revenues?

6.0-VECC-48

Reference: Exhibit 6-3-3, page 1

Preamble: The Application states:

> "Hydro Ottawa projects a 3% increase in Late Payment Charge (LPC) for 2026 based on the historical year-over-year increase from 2021 to 2023. LPC revenues are estimated to increase 2.10% for the 2027-2030 period."

a) What is the basis for the assumption that Late Payment Charge revenues will increase at 2.1%/annum for the 2027-2030 period?

7.0 COST ALLOCATION (EXHIBIT 7)

7.0-VECC-49

Reference: Exhibit 7-1-1, page 2

Preamble: The Application states:
"Hydro Ottawa has made a change to the standard cost allocation model allocators to exclude the three Standby rate classes from the allocation of Miscellaneous Revenues. Standby customers are allocated a share of Miscellaneous Revenues via their primary accounts in their respective General Service 50-1,499 kW, General Service 1,500-4,999 kW and Large Use classes. Their Standby accounts would not, in most cases, generate any additional/incremental revenues in these categories."

a) Are there any other classes (e.g. Sentinel Lighting) where some/all of the associated customers are allocated a share of Miscellaneous Revenue via their primary accounts?
    a. If yes, please identify such customer classes and the number of customers involved by primary account type.

7.0-VECC-50

Reference: Exhibit 7-1-1, page 3
Exhibit 6-3-1(A) – OEB Appendix 2-H

Preamble: The Application states:
"Hydro Ottawa has made a change to the standard cost allocation model allocators to separate the costs and expenses related to Non-Wires Solutions (NWSs) recorded in USofA 4330

- Costs and Expenses of Merchandising, Jobbing. For more information on NWSs, refer to section 9.2 NWSs to Address System Needs in Schedule 2-5-4 - Asset Management Process. The established USofA 4330 records all expenses incurred in relation to the sale of merchandise, whereas the expense related to Non Wires Solutions is more directly related to establishment of Station support for those solutions. A new sub category USofA has thus been created on Tab I3 TB Data, labeled USofA 4330_1 – Costs and Expenses Non Wires Solutions. It takes the place of USofA 4335 which is not being used. USofA 4330_1 has been used to allocate the $2.0M that was part of USofA 4330 and that relates to support for Non Wires Solutions."
And
It is assigned a new allocator on Tab E2 Allocators, labelled "DEMAND 1808 Excluding Standby -1808 D ESB". The new allocator mirrors the allocator (1808 D) used to assign Station costs to customer classes, with the exception that Standby classes have been removed from the calculation."

a) Please provide a schedule that breaks down the actual and forecast (2021-2030) Costs and Expenses of Merchandising (USOA #4330) as between: i) expense related to Non-Wires solutions and ii) expenses incurred in relation to sale of merchandise.

b) Please explain why it is appropriate to exclude the Standby classes from the allocation.

7.0-VECC-51

Reference: **Exhibit 7-1-1, pages 3-4**
Exhibit 7-1-1(A) - 2026 Cost Allocation Model, Tab O2

Preamble: The Application states:
"Hydro Ottawa has made a change to Scenario 3 on Tab O2 Fixed Charge|Floor|Ceiling to add in the cost of the Energy Transition, Customer Strategy and Innovation group recorded in USofA 5510 – Demonstrating and Selling Expense.

a) What is the impact on the Scenario 3 results for 2026 of including the cost of the Energy Transition, Customer Strategy and Innovation group recorded in USofA 5510 – Demonstrating and Selling Expense?

7.0-VECC-52

Reference: Exhibit 7-1-1, pages 7-9

a) Please provide the calculations supporting the proposed Billing and Collecting weighting factors for 2026.

b) Please provide the calculation supporting the proposed Meter Reading weighting factors for 2026.

7.0-VECC-53

Reference: Exhibit 7-1-1, pages 4 and 9-10
Attachment 7-1-1(A) - 2026 Cost Allocation Model, Tab O2

Preamble: The Application states:
"Hydro Ottawa has again used Tab I9 Direct Allocation to allocate the cost of Hydro Ottawa's USofA 5510 - Demonstration and Selling Expense in the amount of $1,321K for 2026. The costs associated with the groups recorded in USofA 5510 will continue to play a key role in the development and implementation of Hydro Ottawa's NWSs strategy.."

a) Please explain what the $26,953 in costs directly allocated to the Residential class for 2026 represent (per Tab O2, Row 226).

7.0-VECC-54

Reference: Exhibit 7-1-1(G), pages 5-6
Exhibit 3-1-1(B), pages 31-38 (of 40)

Preamble: Exhibit 7-1-1(G) states:
"The revenue load forecast, supplied by Itron, is the basis for determining the HDH and CDH components of load. The revenue load forecast is based on a multivariate regression analysis that predicts monthly load based on a number of historical and forward-looking weather, economic and social factors, including the influence of Heating Degree Day (HDD) and Cooling Degree Day (CDD). Running the Itron regression model with and without the HDD and CDD coefficients provides a monthly estimate of the impact of those two factors on load." (page 5)
And
"Table 1 below depicts the results of this analysis for the 2023 Residential customer class. For example, where the Residential rate class's January 2023 load is 695.84 GWh and where removing the HDD independent variable from the model reduces the forecast load to 526.91 GWh." (page 5)
And
"This process creates monthly HDD and CDD factors which are

applied to each hour of the monthly load data to estimate the weather-sensitive portion of actual hourly load." (page 6)

The referenced pages from Exhibit 3-1-1(B) set out Itron's regression models for the Residential, GS and Large Use classes. Only the Large Use model explicitly includes a weather variable and, in that case, only a Cooling Degree Variable is included.

a) Given that only the Large Use Model includes an independent weather variable (and then only for Cooling Degrees), please explain more fully how the models are run "with and without the HDD and CDD coefficients".

b) Please provide the Residential equation and explanatory variable values used to produce the 526.91 GWh value obtained by removing the HDD independent variable from the equation (per Attachment G, page 5).

c) Please confirm that the approach used by Hydro Ottawa assumes that for each customer class all hours in a given year/month have the same percent of actual load that is sensitive to HDD and the same percentage of actual load that is sensitive to CDD.
   i. If not confirmed, please explain why.
   ii. If confirmed, please explain why this is a reasonable assumption.

7.0-VECC-55

Reference: Exhibit 7-1-1(G), pages 8-9

a) With respect to Table 3, please confirm that the HDH Weather Normalization factor for January 15, 2023 – Hour 19 (121.60%) is calculated as the ratio of (i) the HDD value for the hour based on normal weather over (ii) the actual HDD value for the hour.
   i. If not confirmed, please explain how the value is calculated.

7.0-VECC-56

Reference: Exhibit 7-1-1(G), page 10
Exhibit 3-1-1, pages 14-15
Exhibit 2-5-4, pages 29-30

Preamble: Exhibit 7-1-1(G) states:
"Itron's baseline load forecast extrapolates historical trends to predict future load for the five years. The load shape for this portion of the load forecast is derived by scaling up the historical load shape developed in steps 1-4 above.
Itron's electrification load forecast layers on the expected impact of the growing use of electric energy, notably in the form of space heating and electric vehicles, over the five year rate period. This portion of the load forecast has been converted to an hourly load shape using daily load shapes provided by Black

and Veatch in their 2023 Decarbonization Study as Attachment 2-5-4 (F) - Decarbonization Study."

Exhibit 3-1-1 states:
"Hydro Ottawa's large commercial incremental load forecast incorporates known and anticipated system expansion requests from these key public sector entities. These requests encompass a range of initiatives, including the integration of EV charging infrastructure, the transition to electric heating and cooling systems, and electric industrial water heating." (pages 14-15)
And
"Hydro Ottawa developed the EV forecast integrated into both the revenue energy and demand forecasts using customer data as well as from Statistics Canada to forecast EV adoptions. In addition, actual EV hourly load profiles were used to forecast future impact of EVs on both customer and system peak demands." (page 15)

a) With respect to the first reference in the Preamble, please confirm that the baseline forecasts that were scaled up were the 2026-2030 forecasts by customer class including the impact of customer classification and new eDSM but excluding the impacts of EV and large load electrification.

   i. If not confirmed, please explain the basis for the baseline forecasts that the load profiles were scaled to.

b) Exhibit 7-1-1(G) indicates that load profile used for LDEV load was based on daily load shapes provided by Black and Veatch in their 2023 Decarbonization Study. However, Exhibit 3-1-1 indicates that actual EV hourly load profiles were used to forecast future impact of EVs. Please reconcile.

c) Please provide the load profile(s) used for LDEV load (e.g. typical day by month).

d) Exhibit 7-1-1(G) indicates that the load profile used for large load electrification was based on daily load shapes provided by Black and Veatch in their 2023 Decarbonization Study which assume space heating is the primary use. However, in Exhibit 3-1-1 Hydro Ottawa indicates that the new large loads reflect the transition to electric heating and cooling systems, and electric industrial water heating. Given the end uses associated with the new Hydro Ottawa large load why is it appropriate to use a load profile that primarily reflects electric heating load?

e) Please provide the load profile(s) used for Large Commercial Incremental Load (e.g. typical day by month).

f) The addition of the Large Commercial Incremental Load resulted in some customers being reclassified as Large Use customer and their entire load (including the initial baseline load) being reclassified to the Large Use class.

Please explain how their initial baseline forecast load was treated for purposes of determining the load profile (and resulting demand allocators) for the Large Use (e.g., was it included and treated the same as the new Large Commercial Incremental Load?).

7.0-VECC-57

Reference: Exhibit 7-1-1(G), pages 11-15

a) The referenced pages describe how the CP and NCP values determined for 2018-2023 were trended to determine the 2026 CP and NCP values for each class. Please provide the tending equations used to determine the 12CP and 4NCP values for each class for 2026.

   i. Please indicate for which of these trend equations the value for the trend coefficient is (statistically) significantly different from zero.

b) The referenced pages describe how the CP and NCP values determined for 2018-2023 were trended to determine the 2026 CP and NCP values for each class. Were the CP and NCP values used in the 2027-2030 Cost Allocations determined in a similar manner by i) scaling the results for 2018-2023 based on the relevant year's load forecast and ii) trending the results up to the relevant forecast year?

   i. If not, how were they determined?

c) Please provide the calculations setting out the derivation of the 2027-2030 12CP and 4NCP demand allocators for the Residential class.

7.0-VECC-58

Reference: Exhibit 7-1-1(A) – 2026 Cost Allocation Model

a) In the 2026 Cost Allocation Model, the GS 50-1,499 class has: i) in Tab I6.2 - 70 customers with 2 having Standby; ii) in Tab I7.1 – 70 meter units and iii) in Tab I7.2 – 70 meter reading units. Please confirm that each of the customers in the GS 50-1,499 class only has one meter that is owned/read by Hydro Ottawa, including those two customers also on the Standby Power rate.

b) In the 2026 Cost Allocation Model, the GS 1,500-4,999 class is shown as having 126 meters (Tab I7.1) but only 70 meter reading units (Tab I7.2). Please reconcile.

c) In the 2026 Cost Allocation Model, the Large Use class is shown as having 35 meters (Tab I7.1) but only 11 meter reading units (Tab I7.2). Please reconcile.

d) In the 2026 Cost Allocation Model (Tab I7.1 and Tab I7.2) why are there no meters associated with any of the three Standby classes but each class has 2 meter reading units?

e) Please confirm that all of the six Standby customers are served at primary voltage (per Tabs I6.2 and I8).

7.0-VECC-59

Reference: Exhibit 7-1-1(A) to Exhibit 7-1-1(E) – 2026 to 2030 Cost Allocation Models
Exhibit 6-1-1(A) to Exhibit 6-1-1€ - 2026 to 2030 RRWFs
Exhibit 1-3-1, pages 15 and 19

Preamble: Exhibit 1-3-1 describes how Hydro Ottawa proposes to update the annual inflation factors used to determine working capital and OM&A for the OEB's approved parameters.

a) Please confirm that the 2027-2030 Service Revenue Requirements (SRRs) and Base Revenue Requirements (BRRs) used in the Cost Allocation Models and RRWFs for those years are "placeholders" and that the values used to set the approved rates for each of these years are likely to actually differ.

b) Assuming the Service Revenue Requirements (SRRs) and Base Revenue Requirements (BRRs) used to determine the rates to be approved for 2027-2030 differ from those used in the Cost Allocation Models and RRWFs available at the time 2026 rates are approved, please explain how the SSRs and BRRs (as determined when the rates are being set for 2027-2030) will be allocated to customer classes.
   i. To illustrate this calculation, .please provide the calculations demonstrating how the revenue requirement associated with each customer class would be determined for purposes of setting 2027 (i.e., in 2026) assuming the 2027 SSR is then calculated to be $370,000 k as opposed to the current forecast of $335,440 k. Included in these calculations should be the Revenue to Cost Ratio adjustments Hydro Ottawa is proposing for 2027.

7.0-VECC-60

Reference: Exhibit 7-1-3, page 2-4
Exhibit 8, Attachment 8-5-1(A) – Current Tariff Schedule Tab

Preamble: Exhibit 7-1-3 describes Hydro Ottawa's current Standby Rates and how they are applied.

a) Attachment 8-5-1(A) sets out the 2025 values for the Standby Service Charge and Volumetric Rate for each of the three Standby Classes. However, it does not indicate what the 2025 rates are for the Backup Overrun Adjustment. Please provide.

b) Please outline how the current Standby Rates are determined and indicate what the proposed 2026 Standby Rates (i.e., service charge, volumetric rate and backup adjustment rate) for each of the three Standby Rate classes would be if there were no changes to the rate

design.

c) With respect to the three examples set out on page 3, please confirm (or otherwise explain why not) that under the current rate design:

   i. Under example 1, the Standby customer would pay more than if it had no Contract Demand and this additional amount would be equal to: i) the Standby Service Charge plus ii) the Contract Backup Demand of 800 kW times the applicable Standby Volumetric Rate.

   ii. Under example 2, the Standby customer would pay more than if it had no Contract Demand and this additional amount would be equal to the Standby Service Charge.

   iii. Under example 3, the Standby customer would pay more than if it had no Contract Demand and this additional amount would be equal to: i) the Standby Service Charge plus ii) 550 kW times the applicable Standby Volumetric Rate.

d) Under the circumstances where the nameplate rating was 1,000 kW, the Contract Demand was 800 kW, the Generator OFF Peak was 1,200 kW and the Generator ON Peak was 200 kW, would the current total Standby charge be determined as: i) the Standby Service Charge plus ii) 200 kW (1,200-200-800) times the Backup Adjustment rate/charge?

   i. If not, please explain how the total charge would be calculated.

7.0-VECC-61

Reference: Exhibit 7-1-3, pages 2 and 4-6
Attachment 8-5-1(A) – Final Tariff Schedule Tab

Preamble: At page 2 Exhibit 7-1-3 states the following regarding the design of Ottawa Hydro's current Standby Rates:
"The fixed service charge is designed to recover the incremental cost of monitoring, billing and administration related to providing standby services and the distribution volumetric standby charge (either billed backup demand or backup overrun adjustment) is to recover the cost of maintaining standby facilities at any time. This standby rate structure is based on the customer's requirement for reserve capacity under the standby arrangement and the standby charges ensure that the Standby customer pays their fair share of Hydro Ottawa's infrastructure and operating cost to support the standby service."

Exhibit 7-1-3 describes Hydro Ottawa's proposed changes to its Standby rate design.

a) Do the rate design principles set out on page 2 also apply to Hydro Ottawa's proposed Standby rates?

b) Please describe the how the distribution infrastructure required to supply a customer with embedded generation differs from that required to supply a customer without embedded generation where both have the same gross load requirements.

c) Please explain the rationale for each of the following proposed changes to the design of Standby rates and how it aligns with the principles set out on page 2:

   i. Setting the standby volumetric charge as 50% of the distribution volumetric charge for the applicable rate class.

   ii. Setting the backup adjustment charge at the distribution volumetric charge for the applicable rate class.

d) The Exhibit states: "The fixed standby charge is applied to all Customers with load displacement generator(s) that exceed 499 kW." Under Hydro Ottawa's proposal are customers with embedded generation of 500 kW (or more) required to contract for Standby Power?

e) With respect to example 3 (page 5), please explain how the Billed Backup Demand value of 250 kW was calculated. Based on the formula provided it appears the value should be 350 kW (i.e., Contract Demand (800 kW) minus ((Metered Peak generator OFF of 450 kW – Metered Peak generator ON of 200 kW)=250 kW) minus ((the lower of Metered Peak generator ON or 500 kW)=200 kW).

f) Please provide a revised example of the Backup Overrun Adjustment calculation where the Contract Demand is 100 kW (as opposed to zero kW).

g) Please provide the rationale behind the proposed calculation of the Backup Overrun Adjustment quantity (per page 5)

h) Please confirm that, if the customer's gross load peak demand occurs when the generation is OFF, it is possible for the difference between the "Metered Peak Generator OFF" and the "Metered Peak Generator ON" to exceed the Contract Demand even when the Contract Demand equals the nameplate rating of the generator.

   i. If not confirmed, please explain why.

   ii. If confirmed, can the proposed Backup Overrun Adjustment calculation produce a kW result that exceed the nameplate rating of the embedded generation and, if so, why is such a result appropriate?

i) Based on the proposed 2026 GS 50-1,499 Rates and the proposed 2026 GS 50-1,499 Standby Rates, please provide a schedules that, for each of the three examples plus example 3 with a 100 kW Contract Demand, set out the calculation of the total monthly bill (i.e., inclusive of billing for the standard distribution rates and the standby rates) would be assuming: i) the customer had embedded generation and a Contract Demand of 800 kW, ii) the customer had embedded

generation of 800 kW and no Contract Demand, and iii) the customer had the same gross load requirements and no embedded generation. Please provide the schedules for two different scenarios regarding the customer's gross load:

i. First, where the customer's gross load requirement peak occurs when the generation is ON, and

ii. Second, where the customer's gross load requirements peak occurs when the generation is OFF.

j) Based on the proposed 2026 GS 50-1,499 Rates and the proposed 2026 GS 50-1,499 Standby Rates, please also provide a schedules that for example 3 set out the calculation of the total monthly bill (i.e., inclusive of billing for the standard distribution rates and the standby rates) would be assuming: i) the customer had embedded generation with a nameplate of 800 kW and a Contract Demand of 100 kW, ii) the customer has embedded generation with a nameplate of 800 kW and no Contract Demand, and iii) the customer has the same gross load requirements and no embedded generation. Please provide the schedules for two different scenarios regarding the customer's gross load:

i. First, where the customer's gross load requirement peak occurs when the generation is ON, and

ii. Second, where the customer's gross load requirements peak occurs when the generation is OFF.

7.0-VECC-62

Reference: Exhibit 7-1-1, pages 14-18

a) Please explain why the section dealing with the proposed revenue to cost ratio adjustments does not address (or even discuss) the fact that the revenue to cost ratios for the Standby classes are all significantly than 80% and does not propose any adjustments to the revenue to cost ratios for these classes.

8.0 RATE DESIGN (EXHIBIT 8)

8.0-VECC-63

Reference: Exhibit 8-1-2, pages 6-7

Preamble: The Application states:
"Hydro Ottawa proposed keeping the current fixed/variable split in determining the fixed charge to ensure the majority of General Service <50 kW rate class customers are not paying less than a Residential customer."

a) Based on Hydro Ottawa's proposed 2026 rates for the Residential and GS<50 classes, what proportion (%) of GS<50 customers will be paying more than a Residential customer? As part of the response please indicate how the comparison is made (i.e., is it based on total bill, the portion of the bill based the fixed and variable distribution charges, or some other basis?).

b) Assuming the GS<50 fixed charge was set at the "ceiling" of $27.02 (per Table 6), what proportion (%) of GS<50 customers would be paying more than a Residential customer?

8.0-VECC-64

Reference: Exhibit 8-2-1, pages 2-3
Exhibit 8-1-2(A) - RTSR Workform

a) Please confirm that the RRR data used in Tab 3 and the billing data used in Tab 5 are both based on 2023 actuals.

8.0-VECC-65

Reference: Exhibit 8-2-1, page 5
Exhibit 8-1-2(A) - RTSR Workform, LV Rate Tabs

Preamble: The Application states:
"Hydro Ottawa proposes to utilize the 'Low Voltage' tab in the OEB RTSR model to allocate the forecasted LV expense to customer classes for 2026-2030."

a) Please provide the detailed calculations supporting the values for 2026-2030 LV expense (per Exhibit 8-2-1, Table 3).

b) Please clarify how Hydro Ottawa proposes the LV Rates for 2027-2030 will be set (e.g., will they be based on proposed RTSRs for each year {using the most current UTRs and updates to Tabs 3 and 5 using the most recent actuals}?).

8.0-VECC-66

Reference: Exhibit 8-3-2, pages 3-5

Preamble: The Application states:
"The proposed SSS rate is designed to recover costs for labour, material, and the working capital required to provide SSS services. The rate calculation included only incremental costs, which are detailed below:
● Incremental labour costs associated with administering the Regulated Price Plan (RPP) and commodity charges (Hourly Ontario Energy Price and Global Adjustment), include processes related to updating seasonal Time-of-Use hours and Tiered thresholds, and processing the Ontario Electricity Rebate;
● Incremental internal labour for wholesale market settlement activities;
● Incremental internal labor for monthly market settlement with the Independent Electricity System Operator, Hydro One, and embedded generators as well as associated internal/external reporting requirements;
● Vendor costs associated with administering the RPP, HOEP and Global Adjustment billing;
and
● Working capital expenses including the total cost of power and the Operations, Maintenance and Administration (OM&A) expenses detailed above."

a) Please provide a schedule that breaks down the total SSS Administration cost estimate of $6,764,099 (per page 5) so as to show the costs contributed by each of the five areas identified in the Preamble.

b) Please confirm that the OM&A costs included in the propose 2026 Service Revenue Requirement do not include any of the incremental costs cited in the first four areas identified in the Preamble.

c) Please provide the calculation of the working capital expense included per the fifth area noted in the Preamble.

d) With respect to the working capital expenses included, what "cost of power" expenses have been included and why?

e) Has the working capital allowance included in Rate Base (per Exhibit 5) been adjusted to avoid any double counting of the working capital expenses included in the determination of the SSS Administration charge?

8.0-VECC-67

Reference: Exhibit 8-4-1, pages 8-9
Attachment 6-3-1(A) – Appendix 2-H

Preamble: Exhibit 8-4-1 discusses Hydro Ottawa's proposed rates for: i)

Specific Access to Power Poles – Wireline Attachments and ii) Specific Access to Power Poles – Wireless Attachments.

Appendix 2-H breaks down Rent from Electric Property to show: i) Pole Attachment Revenue and ii) Duct Rental Revenue.

a) Where is the revenue from Wireless Attachments included in Appendix 2-H?

b) What rates are charged for Duct Rental, how are they set and where are they discussed in the current Application?

c) Please provide evidence to support the statement that there is an "increased desire for third parties to move (wireline) assets underground" (per page 8)

8.0-VECC-68

Reference: Exhibit 8-4-1, pages 4-10

a) Please provide a schedule that identifies: i) those specific charges that Hydro Ottawa proposed to hold constant at the 2026 approved charge for the years 2027-2030, ii) those specific service charges that Hydro Ottawa is proposing to set for the period 2027-2030 based on an annual escalation rate of 2.1%, and iii) those specific service charges that Hydro Ottawa is proposing will be updated annually for 2027-2030 based on new information (e.g. inflation factors) available at the time of approval.

8.0-VECC-69

Reference: Exhibit 8-4-2, page 3

a) How many Net Metering customers does Hydro Ottawa currently have?

b) Are there any incremental costs associated with providing Net Metering Service that are not incurred to provide service to non-Net Metering customers in the same rate class?

   i. If not, why not?

   ii. If yes, please estimate what the total incremental costs are based on either: i) 2024 actual costs or ii) 2026 forecast costs.

DEFERRAL AND VARIANCE ACCOUNTS (EXHIBIT 9)

9.0 –VECC -70

Reference: Attachment 9-1-5(A), 2015-2027 LRAM Tab

a) With respect to the savings from 2020 Programs (Rows 991-1167) please identify those programs and program adjustments where Hydro Ottawa was responsible for or assisted with the management/delivery of the program.

b) With respect to savings from 2021 Programs (Rows 1199-1388) please identify those programs and program adjustments where Hydro Ottawa was responsible for or assisted with the management/delivery of the program.

c) With respect to savings from 2022 Programs (Rows 1419-1589) please identify those programs and program adjustments where Hydro Ottawa was responsible for or assisted with the management/delivery of the program.

d) With respect to savings from 2023 Programs (Rows 1620-1797) please identify those programs and program adjustments where Hydro Ottawa was responsible for or assisted with the management/delivery of the program.

9.0 –VECC -71

Reference: Exhibit 9-2-1, pages 1-3
Exhibit 7-1-1, page 3

Preamble: The Application states:
“these programs prudently support the objectives outlined in the Ontario Energy Board's "Non-Wires Solutions Guidelines for Electricity Distributors" and aligns with the broader Framework for Energy Innovation, ultimately promoting the effective implementation of NWS for a more resilient and efficient electricity grid that benefits ratepayers.” (page 2)

a) How does Hydro Ottawa plan on ensuring that actual expenditures recorded in the Non-Wires Solutions Variance Account are prudent expenditures that support a more resilient and efficient electricity grid?

b) When Hydro Ottawa seeks to refund/recover the balance in this account, what evidence does it plan on providing to demonstrate the prudence of the actual expenditures recorded?

c) With respect to Table 1 (page 2), how does Hydro Ottawa determine which NWS-related costs are to be included in OM&A versus Other Income and Deductions?

9.0 –VECC -72

Reference: Exhibit 9-2-1, pages 3-5
Exhibit 3-1-1, pages 9-10

Preamble: The Application states:
"This account would be a mechanism to manage discrepancies between predicted large load requests as outlined in Table 8 of Schedule 3-1-1 - Revenue Load and Customer Forecast and actual billed demand for these large load requests. This would account for both volume and timing variations and would only be calculated for the period of time until the load substantially materializes, net of any adjustment in the customer contribution." (Exhibit 9-2-1, page 4)
And
"Hydro Ottawa's revenue load forecast includes electrification and large load requests based on future customer initiatives aimed at decarbonization and electrification, as well as anticipated commercial and residential transportation electrification. The growing popularity of EVs is expected to increase residential energy consumption, while municipal climate targets are driving the City's investment in electrified transportation. Tables 7 and 8 below provide the electrification and large load energy and demand requests respectively" (Exhibit 3-1-1, page 9)

a) Is it Hydro Ottawa's proposal that the Large Load Variance Account include both: (i) the electrification of large loads and (ii) the electrification of residential and commercial transportation or just the former?

b) The reference from Exhibit 3-1-1 suggests that Table 8 includes the impact of both: i) large load electrification and ii) the electrification of residential and commercial transportation. Please clarify whether this is the case.

c) Based on the preceding responses, if necessary, please provide a revised schedule setting out the 2026-2030 "large loads" included in the load forecast.

d) How does Hydro Ottawa intend on distinguishing increases in load during the 2026-2030 period due to electrification as opposed to increases that may/will occur for other reasons?

EOF