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BY EMAIL

October 30, 2020

Christine E. Long
Registrar
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto ON M4P 1E4

Dear Ms. Long:

**Re: Halton Hills Hydro Inc.
2021 Cost of Service Rate Application
Ontario Energy Board (OEB) File Number: EB-2020-0026
OEB Staff Interrogatories**

In accordance with Procedural Order No.1, please find attached OEB staff's interrogatories in the above noted proceeding.

Responses to interrogatories, including supporting documentation, must not include personal information unless filed in accordance with rule 9A of the OEB's *Rules of Practice and Procedure*.

Yours truly,

Original Signed By

Shuo Zhang
Project Advisor – Electricity Distribution: Major Rate Applications & Consolidations

Attach.

*Responses to interrogatories, including supporting documentation, must not include personal information unless filed in accordance with rule 9A of the OEB's *Rules of Practice and Procedure*.

Exhibit 1- Administration

1-Staff-1

Updated Revenue Requirement Work Form (RRWF) and Models

Upon completing all interrogatories from Ontario Energy Board (OEB) staff and intervenors, please provide an updated RRWF in working Microsoft Excel format with any corrections or adjustments that the Applicant wishes to make to the amounts in the populated version of the RRWF filed in the initial applications. Entries for changes and adjustments should be included in the middle column on sheet 3 Data_Input_Sheet. Sheets 10 (Load Forecast), 11 (Cost Allocation), and 13 (Rate Design) should be updated, as necessary. Please include documentation of the corrections and adjustments, such as a reference to an interrogatory response or an explanatory note. Such notes should be documented on Sheet 14 Tracking Sheet, and may also be included on other sheets in the RRWF to assist understanding of changes.

In addition, please file an updated set of models that reflects the interrogatory responses. Please ensure the models used are the latest available models on the OEB's 2021 Electricity Distributor Rate Applications webpage.

1-Staff-2

Letters of Comment

Following publication of the Notice of Application, the OEB received 25 letters of comment. Section 2.1.7 of the Filing Requirements states that distributors will be expected to file with the OEB their response to the matters raised within any letters of comment sent to the OEB related to the distributor's application. If the applicant has not received a copy of the letters or comments, they may be accessed from the public record for this proceeding.

Please file a response to the matters raised in the letters of comment referenced above. Going forward, please ensure that responses to any matters raised in subsequent comments or letter are filed in this proceeding. All responses must be filed before the argument (submission) phase of this proceeding.

Customer Engagement

1-Staff-3

Ref: Exhibit 1/Section 1.7

Preamble:

Through the customer engagement activities undertaken in support of this Application, HHHI identified key themes/feedback from customers:

1. Reliability and reasonable rates
2. Customers are strongly in favour of a proactive replacement strategy rather than a run-to-failure approach
3. Reducing power outages
4. Accommodating renewable energy resources and addressing climate change

Question(s):

- a) Did HHHI make any changes to its draft Operating, Maintenance and Administration (OM&A) and capital budgets after the review of customers' feedback from the customer engagement activities?
- b) HHHI identified a few programs that are aimed at reducing power outages, including pole replacement projects, tree trimming program, and SCADA integration of automated switches.
 - i. Please confirm the proposed capital expenditures on the pole replacement program is \$624,199 for the 2021 test year.
 - ii. Please confirm the proposed capital expenditures on the automated switches and SCADA integration program is \$231,194 for the 2021 test year.
 - iii. Please specify the budget for the tree trimming program for the 2021 test year. OEB staff notes that HHHI purchases tree trimming services from its affiliate company. Please clarify whether HHHI treats the tree trimming expense as an OM&A cost or as an offsetting item in other operating revenue.
 - iv. Based on HHHI's historical power outage data by cause (Exhibit 2, Distribution System Plan, section 2.3.1.3.4, Table 12), please explain what improvements HHHI expects to achieve in the performance of system reliability in the next five years with the execution of these projects.
- c) HHHI noted that 15% of survey respondents indicated that they were considering installing electric vehicle (EV) charging stations within the next five years, and 31.7% of poll respondents indicated that they were considering installing battery storage to provide back-up power supply in the next five years. HHHI is also committed to assist the Town of Halton Hills by providing guidance on the strategic placement of EV charging stations within the distribution system.

- i. Please specify how many customers that “15% of survey respondents” and “31.7% of poll respondents” represent.
 - ii. Please explain what actions HHHI plans to undertake to facilitate customers to install EV charging stations and/or battery storage.
 - iii. Please clarify whether HHHI included any capital expenditures and/or OM&A costs associated with activities facilitating customers’ installation of EV charging stations and/or battery storage. If so, please specify the proposed capital expenditures and/or OM&A costs.
 - iv. HHHI stated that it “will review opportunities to invest in EV charging for the community”. Does HHHI plan to own and operate any EV charging station? If so, please discuss the policy basis that permits the ownership and/or operation of an EV charging station as a distribution activity.
 - v. Please explain what actions HHHI plans to undertake to assist the Town of Halton Hills on the strategic placement of EV charging stations within the distribution system.
 - vi. Please clarify whether HHHI included any capital expenditures and/or OM&A costs related to assisting the Town of Halton Hills with the installation of EV charging stations within the distribution system. If so, please specify the proposed capital expenditures and/or OM&A costs.
- d) HHHI noted that the online customer engagement platform provided meaningful results at a fraction of the cost of conventional customer engagement methods. How much was spent on the customer engagement platform compared to what would have been spent in a conventional approach?

Treatment of COVID

1-Staff-4

Ref: Exhibit 1/pp.22-23

Preamble:

When discussing the impact of the COVID outbreak, HHHI stated that the situation is dynamic and the ultimate duration and magnitude of the impact on the economy and HHHI’s business are not known at the time of filing the Application.

Question(s):

- a) Please clarify whether HHHI has included any impacts of the COVID emergency in its proposed 2020 and 2021 OM&A. If so, please specify the impacts.

- b) Please clarify whether HHHI has included any impacts of the COVID emergency in its proposed 2020 and 2021 capital expenditures. If so, please specify the impacts.
- c) OEB staff notes that HHHI has reported entries to the COVID-19 Account established by the OEB as of July 31, 2020 (Lost Revenues and Other Costs).¹
 - i. Please explain the types of costs/lost revenues associated with the amounts that HHHI has recorded in each sub-account.
 - ii. Please discuss any other types of costs/lost revenues/savings that HHHI anticipates to record in the sub-accounts.
- d) Please explain the interplay between the COVID adjustment made in the load forecast and the impacts of COVID emergency that will be dealt with by way of the COVID-19 Account (i.e. Account 1509 – Impacts Arising from the COVID-19 Emergency, Sub-Account Lost Revenues).

Productivity

1-Staff-5

Ref: Exhibit 1/Appendix 1-1: 2020 Corporate Business Plan/page 6

Preamble:

HHHI noted that it implemented an innovation tracking initiative at the department level in 2018 and there have been 162 innovation ideas created by staff. Innovation ideas have created \$222,000 in cost savings and 2300 hours in productivity improvements.

Question(s):

- a) Please provide a list of existing productivity initiatives that are currently in place for the 2016-2020 rate period.
- b) Please identify any new productivity initiatives that are planned to be implemented for the 2021-2025 rate period.
- c) Please specify activities/initiatives associated with the \$222,000 cost savings and the 2300 hours productivity improvements.
- d) Please provide a breakdown of cost savings for each of the activities/initiatives.

¹ COVID-19 Account Balances Reported by Electricity Utilities as of July 31, 2020. September 24, 2020.

- e) Please clarify whether the \$222,000 represents an annual saving amount or cumulative savings over a few years.
- f) Please clarify if any of the savings have been reflected in the proposed 2021 OM&A.
- g) Please clarify if any of the savings have been reflected in the proposed 2021 capital expenditures.

Exhibit 2 – Rate Base and Distribution System Plan

The New Municipal Transformer Station

2-Staff-6

Ref: Exhibit 2/Section 2.3.6 & 2.5.6

Preamble:

The OEB approved Incremental Capital Module (ICM) funding of \$23,476,441 for a new municipal transformer station (MTS) to serve future growth in HHHI’s 2019 rate application.² In this Application, HHHI reported actual cost of \$24,475,012 for this new MTS and requested to recover the additional cost through rate riders. HHHI provides a summary of additional costs in the table below.

<i>Cost Category</i>	Amount
<i>Commissioning Costs</i>	\$342,387
<i>Capitalization of interest, loan, property tax & legal</i>	\$179,622
<i>SCADA programming, operating directives</i>	\$242,177
<i>Equipment</i>	\$18,680
<i>Labour</i>	\$153,364
<i>Materials</i>	\$68,862
<i>Land</i>	\$(6,521)
Total Costs since ICM	\$998,571

Question(s):

- a) Please specify the originally planned target in-service date filed in the 2019 rate application and the actual in-service date for the new MTS.
- b) Please explain why the additional costs were not anticipated at the time of filing the ICM request.

² EB-2018-0328

- c) Please explain what actions HHHI has taken to manage the actual costs as close to the OEB-approved budget as possible.
- d) OEB staff notes the table below that provides the capital cost for the new MTS filed in HHHI’s 2019 ICM application.³ Please confirm the proposed ICM budget did not include contingency.

Table 7 - TS Capital Cost Categories

Cost Category	Capital Cost	Amortization Expense	Capital Cost Allowance (CCA)		
			Class	Rate	Amount
TS Switchgear - Gas, Transformer	6,789,816	196,505	47	8%	543,185
Substation Equipment, U/G Cables, Meters, Capital Contribution	9,060,154	243,061	47	8%	724,812
Duct & Civil, Building	6,408,952	153,855	47	8%	512,716
SCADA & DC System	230,519	15,368	45	45%	103,734
Land	987,000	-	n/a	n/a	-
Total Costs	23,476,441	608,789			1,884,447

- e) Please explain what “additional commissioning activities” were required that resulted in an additional cost of \$342,387.
- f) OEB staff notes that the budgeted costs for SCADA & DC System was \$230,519 as proposed in the ICM application. The additional cost for SCADA programming is \$242,177. Please explain why an increase of 105% in the spending of the SCADA system is reasonable.
- g) Please confirm HHHI has spent about 92%⁴ of the budget at the end of 2018 when the ICM application was filed.

Capital Expenditures

2-Staff-7

Ref: Exhibit 2/Section 2.5 Capital Expenditures

Question(s):

- a) Please provide HHHI’s forecast capital additions by investment categories (System Access, System Renewal, System Service, General Plant).

³ EB-2018-0328, ICM Application, December 3, 2018, page 19.

⁴ EB-2018-0328, Interrogatory Responses, February 8, 2019, Appendix IRR-B.

- b) Please explain HHHI's approach to forecasting capital expenditures and related capital additions.
- c) Please provide the year to date actual capital expenditures for 2020 by investment categories.
- d) Please provide the historical (2016-2019) and the forecast (2020-2021) capital expenditures on vehicle expenses.

Working Capital

2-Staff-8

Ref: Revenue Requirement Workform (RRWF)

Question(s):

- a) Please explain the difference between the controllable expenses of \$7,432,968 in the RRWF, Tab 4. Rate Base, cell G24, and the proposed OM&A of \$7,580,262 (RRWF, Tab 9. Rev Reqt, cell F15).

Customer Engagement

2-Staff-9

Ref: Exhibit 2/Distribution System Plan/Appendix B – Customer Engagement Results

Preamble:

In support of the 2021-2025 Cost of Service application, HHHI created a website to survey customers and gain an understanding of their preferences and perceptions.

Question(s):

- a) HHHI noted that survey questions were reviewed by a customer focus group of eight customers prior to survey launch. Please explain key changes to the questions after the review of the customer focus group.
- b) HHHI stated that customer response is strongly in favour of a proactive asset replacement strategy to improve reliability even if it results in increased costs. Did HHHI conduct any cost benefit analysis to examine the relationship between investments in asset replacement and the performance of system reliability?
- c) In question six, HHHI asked customers "Sometimes power outages are caused by tree branches contacting lines. How much more would you be willing to pay

each month for increased tree trimming to reduce power outages?” Please explain:

- i. What’s the incremental cost in tree trimming that would result in an increase to customers’ monthly bills for each of the three options presented to customers (\$0-\$0.5, \$0.5-\$1.5, \$1.5-\$3.0)?
 - ii. What’s the expected improvement (i.e. reduction to power outages) that can be achieved for each of the three options presented to customers (\$0-\$0.5, \$0.5-\$1.5, \$1.5-\$3.0)?
- d) HHHI noted that while over 90% of customers support the concept of electronic billing, only 30% of customers have enrolled in paperless billing at the time of customer engagement.
- i. Please provide the number of customers that have enrolled in electronic billing as of October 30, 2020.
 - ii. Please provide details of HHHI’s plan for promoting electronic billing.
 - iii. Please explain whether HHHI has included any cost savings resulting from electronic billing in its proposed 2021 OM&A. If so, please provide the forecast saving and explain the basis of the forecast.

Cost of Power

2-Staff-10

Ref: Chapter 2 Appendices – 2-Z Commodity Expense

Regulated Price Plan – November 1, 2020 to October 31, 2021, October 13, 2020

On October 13, 2020 the OEB issued the Regulated Price Plan Report for November 1, 2020 to October 31, 2021.

- a) Please update Appendix 2-Z with the new prices.

The Ontario Energy Rebate (OER) has changed from 31.8% to 33.2% starting November 1, 2020.

- b) Please update Appendix 2-Z with the new OER credit.

Distribution System Plan

2-Staff-11

Ref: Exhibit 2/Section 2.5.1 Planning

Preamble:

HHHI acquired an independent review of its Distribution System Plan (DSP) from Acumen Engineered Solutions International Inc. (AESI).

Question(s):

- a) What's AESI's definition of Good Asset Management Practice and Good Utility Practice? Please explain.
- b) Please clarify whether HHHI hired any consultant in support of its preparation of its DSP.

2-Staff-12

Ref: Exhibit 2 – Rate Base and DSP/p. 144

Preamble:

Decision Support System (DSS) is used for budgeting purposes based on asset age and condition.

Question(s):

- a) Please explain the relationship between age and condition in DSS.
- b) Please explain how condition is quantitatively calculated in DSS.

2-Staff-13

Ref: Exhibit 2 – Rate Base and DSP/p.144

Preamble:

Section 1.2.6 of the DSP indicates that the implementation of DSS and improvements to the geographic information system (GIS) are changes to the asset management process.

Question(s):

- a) Please explain the benefits of the DSS and the enhanced GIS, and explain how the implementation of DSS and improvements to GIS resulted in changes/improvements to the distribution asset management process.

2-Staff-14

Ref: Exhibit 2 – Rate Base and DSP/p.154

Preamble:

The table on page 20 of the DSP shows that the remaining available Feeder 1 capacity at substation 19 is 990 KW

- a) Please explain how you arrived at this value.

2-Staff-15

Ref: Exhibit 2 – Rate Base and DSP/p.161

Preamble:

Table 12 on page 27 of the DSP shows power outages by cause and a statement is made that “second longest outages were related to defective equipment” and “the total number of outages hours related to defective equipment was less than half the previous year’s total”.

Question(s):

- a) Please list the 15 major events that occurred in 2016.
- b) Please explain why the number of outage hours attributable to defective equipment in some years are higher than that attributable to adverse weather (years 2015, 2017 and 2018).
- c) Please explain the reason for significant variations in number of outage hours attributable to defective equipment over the historical period.

2-Staff-16

Ref: Exhibit 2 – Rate Base and DSP/p.163

Preamble:

Figure 9 on page 29 of the DSP shows Supply Voltage Metrics.

Question(s):

- a) Please explain what units are shown on the Y axis of this graph.

2-Staff-17

Ref: Exhibit 2 – Rate Base and DSP/p.170

Preamble:

Section 3.1.2 of the DSP describes Asset Management Planning Objectives.

Question(s):

- a) Please explain why in Table 18 on page 36 of the DSP poles replacement and testing numbers are part of the Financial objective.

- b) Please explain why there are no targets for some objectives, namely Smart Grid Implementation, Conservation and Fair Rates.

2-Staff-18

Ref: Exhibit 2 – Rate Base and DSP/p.173

Preamble:

Figure 15 on page 39 of the DSP shows Asset Management Process Flow.

Question(s):

- a) Please explain which data inputs are used for assessing system capacity needs.
- b) Please explain which data inputs (e.g. useful life of rolling stock, IT equipment, building improvements, expanding storage facilities, need for new meters, SCADA improvements, etc.) are used for assessing General Plant needs.

2-Staff-19

Ref: Exhibit 2 – Rate Base and DSP/p.173, p.384

Preamble:

Asset Management Plan (AMP) is referred to on page 39 of the DSP as a document containing asset condition assessment. This AMP document in turn refers to DSS for deriving Asset Performance Distribution for various assets. Section 4.4.2 of the DSS in Table 7 shows purely age-based condition triggers that are then combined with budget inputs in Table 8 in section 4.5.1 of the DSS to generate Condition Performance Distribution for all asset categories.

Question(s):

- a) Please provide formulae used in calculating condition of assets using Health Index score that quantitatively incorporates factors other than age.
- b) Please provide Health Index distribution for distribution assets based on the latest calculated conditions.
- c) Please explain the basis for budgetary amounts in Table 8 of the DSS.
- d) Has HHHI considered options other than replacement in developing these budgets?

2-Staff-20

Ref: Exhibit 2 – Rate Base and DSP/p.175

Preamble:

The DSP refers on Page 41 to a system modelling software.

Question(s):

- a) Please provide detailed description of the distribution modelling software.
- b) Please explain how this software was used to assess systems capacity needs.

2-Staff-21

Ref: Exhibit 2 – Rate Base and DSP/p.178

Preamble:

Section 3.3.6 on page 44 of the DSP refers to reliability risk/consequence analysis.

Question(s):

- a) When was this analysis performed?
- b) Please indicate where in the DSP this analysis could be found.

2-Staff-22

Ref: Exhibit 2 – Rate Base and DSP/p.178

Preamble:

Section 3.4.2 on pages 45 and 46 of the DSP provides information on HHHI's system configuration.

Question(s):

- a) Please provide a single line summary diagram showing the main supply points and feeders.

2-Staff-23

Ref: Exhibit 2 – Rate Base and DSP/pp.178 and 180

Preamble:

Figure 19 on page 44 of the DSP shows the Average Number of Times that Power to a Customer is Interrupted (SAIFI) and the Average Number of Hours that Power to a Customer is Interrupted (SAIDI) historical trends for 27.6 kV and 44 kV feeders.

Question(s):

- a) Please explain why reliability performance of 1M2 and 1M5 feeders originating at Halton Hills MTS #1 and referred to on page 46 of the DSP are not shown.

2-Staff-24

Ref: Exhibit 2 – Rate Base and DSP/p. 189

Preamble:

The table at the bottom of page 55 of the DSP shows risk-based transformer vaults ranking.

Question(s):

- a) Please explain how these risk rankings were assigned/determined.

2-Staff-25

Ref: Exhibit 2 – Rate Base and DSP/p. 190

Preamble:

Figure 28 on page 56 of the DSP shows age distribution of PoleTrans transformers and describes below how the replacement priority was driven by their risk factors.

Question(s):

- a) Please explain how risk factors were determined, including how probability of failure was incorporated in deriving them.

2-Staff-26

Ref: Exhibit 2 – Rate Base and DSP/p. 191 and 223

Preamble:

HHLI states on pages 57 and 89 of the DSP states that it is developing a primary cable testing program.

Question(s):

- a) Please describe what specific testing protocol will be used.

- b) Please explain how test results will be used in determining condition of underground cables.
- c) Does HHHI expect to replace or refurbish any underground primary cables based on the test results within the forecast period?

2-Staff-27

Ref: Exhibit 2 – Rate Base and DSP/pp.191-193

Preamble:

Table 29 on pages 57-59 of the DSP lists a significant number of customer owned substations within HHHI's service territory.

Question(s):

- a) Please describe how load losses attributable to the failure of equipment at these substations is accounted for in calculating system SAIFI and SAIDI.

2-Staff-28

Ref: Exhibit 2 – Rate Base and DSP/p.320

Preamble:

Table 7-5 on page 52 of the AMP shows the list of MS transformers and their oil condition, loading and age and then states that "based on DSS analysis, once the Willow MS transformer is replaced, other power transformers are expected to remain in acceptable condition within the window of this plan, with 2029 targeted for the next transformer replacement". Table 7-5 also states that Willow transformer needs to be replaced due to age.

Question(s):

- a) Please explain why Willow MS transformer needs to be replaced because as stated throughout the DSP age is not the same as condition and transformer oil is in a good condition.
- b) Please explain how the condition of MS transformers differs from their age and what is the formula used to quantitatively calculate condition of these transformers.
- c) Please explain why Ballinafad MS transformer with the same oil condition as Willow transformer and similar loading is not expected to be replaced over the next nine years even though it is only three years younger than the Willow MS transformer.

2-Staff-29

Ref: Exhibit 2 – Rate Base and DSP/pp. 195, 198 and 199

Preamble:

It is stated on page 61 of the DSP that Halton MTS has eight feeders yet Table 35 on page 64 of the DSP and Figure 31 on page 65 of the DSP only show loading information for six feeders.

Question(s):

- a) Please provide loading for the remaining two feeders.
- b) Please confirm that except for the 1M2 feeder all other feeders originating at Halton MTS carry no load.

2-Staff-30

Ref: Exhibit 2 – Rate Base and DSP/pp. 199-200

Preamble:

Section 3.4.14.1 on pages 65 and 65 of the DSP provides system capacity assessment which is based on average feeder loading that assumes that all feeders are equally loaded.

Question(s):

- a) Please explain the meaning of 6MVA existing feeder surplus in the contingency analysis on page 65 of the DSP.
- b) Other than average post-contingency feeder loading calculations provided in this section, has HHHI performed a formal capacity assessment study using load flow analysis?
- c) If answer to b) is “yes” please provide a document describing this analysis.
- d) Please describe load transfer capabilities among the nine 44 kV and 27.6 kV feeders.

2-Staff-31

Ref: Exhibit 2 – Rate Base and DSP/pp. 201-205

Preamble:

Section 3.4.14.4 on pages 67-71 of the DSP describes 4.16 kV system assessment.

Question(s):

- a) Please explain how the ability to accept load transfers constraints the system ability and does not provide sufficient redundancy.

2-Staff-32

Ref: Exhibit 2 – Rate Base and DSP/p. 205

Preamble:

Figure 36 on page 71 of the DSP shows asset management factors and then it states that these factors are considered when assessing asset's condition.

Question(s):

- a) Please provide a quantitative formula that show how these factors were used for different asset categories to determine their condition.
- b) Please explain how the impact of failure, public safety and worker safety factors are used in determining assets' condition.
- c) Please explain how an "Asset Condition" factor is used in determining asset condition.

2-Staff-33

Ref: Exhibit 2 – Rate Base and DSP/p. 206

Preamble:

Section 3.5.1.3 of the DSP on page 72 states that changes in System Renewal expenditures affect budgets for the other three categories.

Question(s):

- a) Please explain how these changes affect System Access expenditures majority of which are demand driven.

2-Staff-34

Ref: Exhibit 2 – Rate Base and DSP/pp. 206-207

Preamble:

Section 3.5.1.4 of the DSP on pages 72 and 73 describes maintenance practices and criteria for various asset categories.

Question(s):

- a) Please explain how the results and observations from these maintenance activities are incorporated into calculating condition of assets.
- b) Please explain how the results and observations from these maintenance activities are used in determining what is the appropriate course of action, i.e. refurbishment or replacement.

2-Staff-35

Ref: Exhibit 2 – Rate Base and DSP/p.208

Preamble:

Figures 37 and 38 and page 74 of the DSP explain the risk-based project prioritization approach.

Question(s):

- a) Please explain how risk impact in Figure 38 is determined.
- b) Please explain how risk probability in Figure 38 is determined.

2-Staff-36

Ref: Exhibit 2 – Rate Base and DSP/p.213

Preamble:

Section 4.2 on page 79 of the DSP refers to in-house software used to determine required changes to the HHHI's system to accommodate new developments.

Question(s):

- a) Please describe the software's functionality and outputs.
- b) Please explain whether it was used for assessing future feeders' loadings.
- c) If "yes", how was it used in conjunction with average feeders' loading calculations described on pages 65-66 and 67-71 of the DSP?

2-Staff-37

Ref: Exhibit 2 – Rate Base and DSP/p.219

Preamble:

Section 4.6 of the DSP on page 85 refers to the DSS being used to evaluate asset condition.

Question(s):

- a) Please point out where in the DSS asset condition is determined using more than age alone.
- b) Please explain what you mean by “continual condition assessment”.

2-Staff-38

Ref: Exhibit 2 – Rate Base and DSP/p.246-248

Preamble:

Tables 54, 55,56, and 59 on pages 112-118 of the DSP show projects within System Access, System Renewal and System Service investment categories along with the forecasted amounts for each project and projects’ drivers. The projects named in these tables within each Investment Category are different than the project titles used in justifying material projects in Appendix E “Capital Projects Sheets”.

Question(s):

- a) Please provide Table 59 Detailed Capital Projects in working Microsoft Excel format.
- b) Please provide a table assigning each of the material capital projects in Appendix E to one of the line item listed in Table 59 Detailed Capital Projects. Please ensure the sum of material projects reconcile with information filed in Table 59 Detailed Capital Projects.

Exhibit 3 – Revenues

Conservation and Demand Management (CDM) Variable in Load Forecast

3-Staff-39

Ref: Exhibit 3, Table 4, page 16
Load Forecast Model, Tab CDM
2019 Participation and Cost (P&C) Report
2017 Final Verified Savings Results Report

Preamble:

The persistence savings in the CDM Variable in the load forecast could not be reconciled with the 2019 Participation and Cost (P&C) Report. The discrepancies are shown by year:

Savings persistence into 2021 from following program year	Quantum of CDM Savings in 'CDM Variable'	2019 Participation and Cost (P&C) Report
2016	6,215,530 kWh	6,323,403 kWh
2017	7,512,733 kWh	9,389,654 kWh
2018	2,730,021 kWh	3,287,635 kWh
2019	970,290 kWh	294,918 kWh
2020 (half year rule applied)	813,319 kWh (0.5 x 1,626,637 kWh)	Not available

Question(s):

- a) Please discuss why HHHI did not include 2016 and 2017 unverified adjustments (as identified in 2019 P&C Report) in the CDM Variable of the load forecast.
- b) Please clarify why the 2018 savings of 2,730,021 kWh in the CDM Variable do not match the reported savings in the 2019 P&C Report (3,287,635 kWh).
- c) For 2019 actual savings embedded in the CDM Variable, please explain why savings of 970,290 kWh have been used rather than the results in the 2019 P&C Report (294,918 kWh).
 - i. Please discuss why these additional savings of 675,372 kW were not captured in the 2019 P&C Report, but should be included in the CDM Variable.
- d) Please provide the breakdown of 2019 and 2020 program savings by project, in excel format, showing the following detailed information:
 - i. What framework the project is being completed under (for example, Conservation First Framework (CFF) wind-down program, interim framework, etc.)
 - ii. The timing of approval for each project
 - iii. Confirmation that the utility and its customer(s) have entered into a contractual agreement for the energy efficiency project(s) to be completed
 - iv. The total estimated savings and project timeframe for each project(s) that HHHI is contractually obligated to complete

3-Staff-40

Ref: Exhibit 3, Table 14, p. 24
Load Forecast Model, Tab "Summary"

2019 Participation and Cost (P&C) Report

Preamble:

In Exhibit 3, Table 14, HHHI notes that load was adjusted downward for savings from customer 1 based on the implementation of a Process & System Upgrades Program (PSUP) – Combined Heat and Power (CHP) CDM program. Savings of 3,169,000 kWh were reflected in a separate “Direct CDM Adjustment” as shown in the Summary Tab (cell M8) of the Load Forecast model. HHHI notes that including these savings in the CDM Variable to the load forecast would result in double counting.

Question(s):

- a) Please provide additional information on when the PSUP – CHP CDM program was undertaken, when the savings were achieved, and under which CDM framework that project was completed under.
- b) Please provide a copy of the Measurement & Verification (M&V) report to validate the 2020 savings of 3,169,000 kWh achieved by customer 1, including all persisting savings in future years if available.
 - i. If there is no M&V report, please explain the methodology used to estimate energy savings, including measurement of the base case and the new level of demand with the CHP project in operation.
- c) Please confirm whether 3,169,000 kWh of savings from customer 1 are net savings achieved in 2020. If not, please apply a net-to-gross ratio to calculate the net savings.
- d) Please confirm whether the half year rule was applied on 3,169,000 kWh savings. If not, please discuss why the half year rule should not apply.
- e) Please confirm whether or not the CDM Variable in the 2021 load forecast includes savings of 3,169,000 kWh from customer 1.
 - i. If yes, please explain why there should be a separate adjustment per Table 14.
 - ii. If not, please explain how double counting of the CDM savings would occur.

3-Staff-41

Ref: Load Forecast Model

Question(s):

- a) If there are any revisions to the savings included in the CDM Variable, please summarize the adjustments in response to this interrogatory and explain any updates made to the Load Forecast Model.

- b) If there is any supporting documentation filed in response to the above interrogatories, please ensure that all confidential information that may be filed in your responses be removed or treated in accordance with Rule 9A of the OEB's *Rules of Practice and Procedure*.

Load Forecast

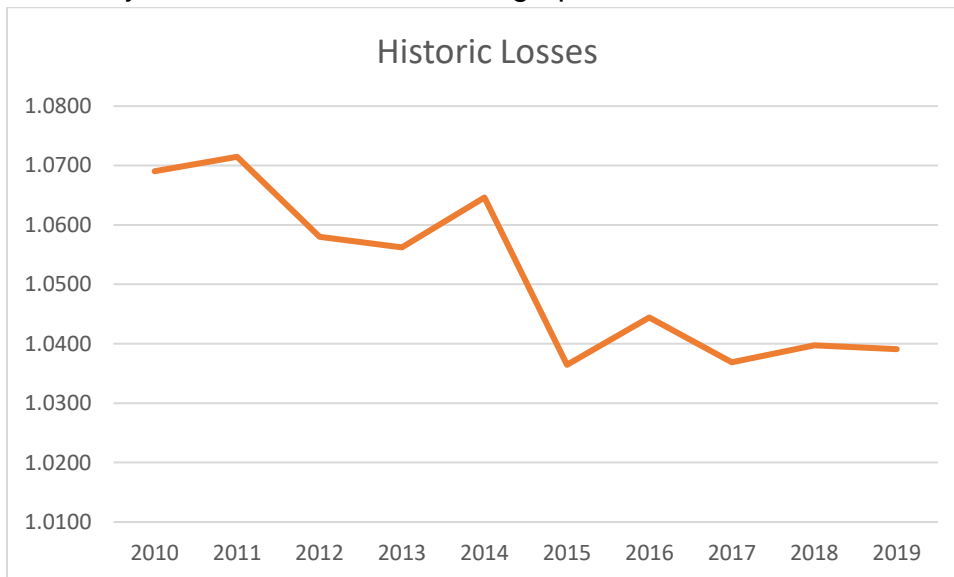
3-Staff-42

**Ref: Load Forecast Model - Rate Class Energy Model tab
Chapter 2 Appendix 2-R**

Preamble:

HHHI has used a ten-year historic average of losses to estimate losses in the test year. OEB Appendix 2-R uses a five-year historic average of losses to estimate losses in the test year. The loss factor in the load forecast model when all ten years are used is 1.0516. When only the last five years are used, the loss factor is 1.0393.

The ten years of historic losses are graphed below:



Question(s):

- a) Does HHHI believe that the difference in losses between the earlier years relative to the later years is due to random variability, or due to systemic changes in its line losses?
- b) If HHHI believes that the difference in line losses over the years is due to systemic changes, such as upgrades to lines, please explain why a ten-year average was chosen.

3-Staff-43

Ref: Exhibit 3, pages 24, 31

Preamble:

HHHI identifies three customers that have resulted in a reduction of load in the General Service 1,000 to 4,999 kW rate class. With respect to one, it states “The adjustment for Customer 1 reflects the 2020 implementation of a PSUP – CHP CDM program”. A second customer is permanently closed. The third “reflects the reduction in operation for which occurred prior to COVID-19.” The regression model includes a variable for the outlet mall, but not any of the three customers above.

Question(s):

- a) Please provide details on the timing of the load loss of each of the three customers.
- b) If the load lost from any of the customers was in 2019 or prior, was an explanatory variable tested in the load forecast similar to the outlet mall?
- c) If the load lost from Customer 3 was in 2020, please provide the load prior to and after the reduction in operation, and explain why the same adjustment was made to both the General Service 1,000 to 4,999 kW rate class, and the General Service 50 to 999 rate class.

3-Staff-44

Ref: Exhibit 3, page 25

Preamble:

HHHI states that “At the time of preparing this evidence there was no indication that consumption levels would return to the pre-COVID-19 levels within the test year.”

HHHI has used COVID-19 Adjustments of 5% to Residential, -6% to General Service < 50 kW, and -9% to General Service 50 to 999 kW and General Service 1,000 to 4,999 kW.

Question(s):

- a) Please provide HHHI's actual monthly energy and demand by rate class for 2019 and all available months of 2020.
- b) Please comment on the changes observed in 2020, and any observed impact of COVID-19. Please separately address the closure in March-May, and any changes resulting from the gradual re-opening that followed.
- c) Does HHHI expect that the COVID-19 related reductions will persist past the test well into the 2022-2025 Incentive Rate Making (IRM) years. If so, please explain the rationale.
- d) If HHHI does not believe that the COVID-19 related reductions will persist well into 2022-2025 years, please comment on the suitability of preparing a load forecast that is normalized for weather, but includes adjustments one-time events that are not expected to persist substantially into the following IRM period.
- e) Please provide a derivation of the COVID-19 adjustments used, or explain the methodology used for their selection.

3-Staff-45

Ref: Exhibit 3, page 20

Load Forecast Model, Tab: Rate Class Energy Model, Tab: Summary

Preamble:

HHHI states:

For all other classes, HHHI has assumed the number of customers / connections will remain at the 2019 level in 2020 and 2021. HHHI submits this is a reasonable assumption since HHHI is not aware of a reason for the customer / connection numbers to increase or decrease over the forecast period especially with the recent impact of COVID-19.

The customer and connection counts are labelled “Year End Customers” and “Year End Connections” on the Rate Class Energy Model tab but are used as the forecasted customers on the Summary tab, and elsewhere throughout the application.

Question(s):

- a) Please explain what the customer / connection numbers reflect – for instance whether they are year end, or an average value. If these are an average value, please explain how the average was calculated – for instance, an average of beginning and end, a 12-month average, or other method.

- b) Please provide the customer connection count for the most recent month available.

3-Staff-46

Ref: Exhibit 3, pages 30, 37

EB-2015-0074, Exhibit 3, Tab 2, Schedule 1, October 2, 2015, page 25

Preamble:

HHHI’s 2012 Actual consumption in the Sentinel Lights class was 439,446 kWh with 650 kW of demand. The 2016 Approved amount was 416,109 kWh and 628 kW. From 2016 Actual to 2021 Proposed, the energy consumption is at most 273,180 kWh, and the demand is at least 680 kW. The following explanation was provided: “In the Sentinel Light class, the actual 2016 kWh for both actual and weather normalized were significantly less than Board Approved due to a calculation error related to the expected move to monthly billing.”

Question(s):

- a) Please explain the calculation error resulting from the move to monthly billing.

- b) Please explain the circumstances that lead to a reduction from 461,109 kWh Approved to 273,180 kWh Actual in combination with an increase in billed demand.

- c) Please explain why the 2016 to 2019 billed demand is higher than the 2012 billed demand, while the 2016 to 2019 energy consumption is lower than the 2012 energy consumption.

3-Staff-47

Ref: Exhibit 3, pages 30, 37, 38

Preamble:

In 2016 (Actual), the Street Light energy consumption was 1,832,979 kWh. In 2019 Actual, consumption was 979,604 kWh, a decrease of 46.6%. The 2016 demand was 5,129 kW and in 2019 it was 3,105 kW, a decrease of 39.5%.

HHHI discussed replacement of high-pressure sodium bulbs with LED as a reason for the decrease in load.

Question(s):

- a) Please explain why the energy usage has decreased by a greater percentage than the demand.

Exhibit 4 – Operating Expenses

2021 OM&A

4-Staff-48

Ref: Exhibit 4/page 10

Preamble:

HHHI stated that “After the Executive Management Team’s rigorous review and updated for any necessary changes, draft budgets were presented to HHHI’s Board of Directors for final approval.”

Question(s):

- a) What changes have been made to the 2021 OM&A and capital budgets after the Executive Management Team’s review?
- b) Please provide the year to date actual OM&A costs for 2020 by OM&A programs.

4-Staff-49

Ref: Exhibit 4/page 23

Preamble:

HHHI stated that “Executive Management meets with HHHI’s Board of Directors for a formal presentation and receipt of approval, subject to any required changes recommended by the Board of Directors.”

Question(s):

- a) Please provide a copy of the presentation made to the Board of Directors.
- b) What changes have been made to the 2021 OM&A and capital budgets after the Board of Directors' review?

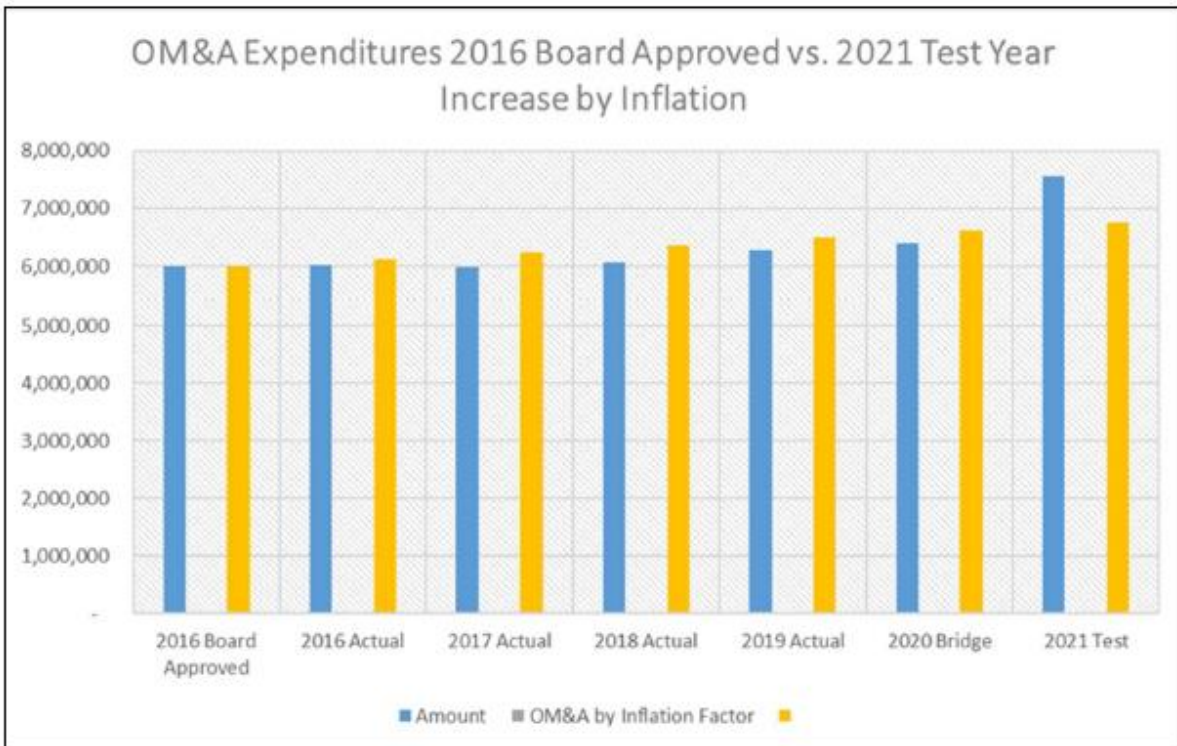
4-Staff-50

Ref: Exhibit 4/page 16

Preamble:

HHHI provided a bar chart to show year over year change in OM&A with inflation increase.

Table 4 - Year over Year Change in OM&A (with inflation increase)



Question(s):

- a) Please confirm the blue bars represent the OEB-approved (2016), actual (2016-2019), and forecast (2020-2021) OM&A costs.
- b) Please confirm the orange bars represent OM&A costs with inflation increase.

- c) Please specify the OM&A costs with inflation increase for the 2021 test year.
- d) Please discuss why the proposed 2021 OM&A is reasonable (higher than OM&A with inflation increase) considering that HHHI managed its actual spending at a level lower than OM&A with inflation increase for each of the year over the 2016-2020 period.

OM&A Cost per Customer

4-Staff-51

**Ref: Appendix 2-L Recoverable OM&A Cost per Customer
2019 Yearbook of Electricity Distributors**

Preamble:

Appendix 2-L provides OM&A cost per customer as follows:

	Last Rebasing Year 2016 - OEB Approved	Last Rebasing Year 2016 - Actual	2017 Actuals	2018 Actuals	2019 Actuals	2020 Bridge Year	2021 Test Year
OM&A Costs							
O&M	\$1,729,772	\$1,857,325	\$1,657,609	\$1,601,073	\$1,569,890	\$1,626,597	\$1,898,803
Admin Expenses	\$4,265,793	\$4,154,814	\$4,318,737	\$4,451,152	\$4,718,293	\$4,779,773	\$5,662,569
Total Recoverable OM&A from	\$5,995,565	\$6,012,140	\$5,976,346	\$6,052,225	\$6,288,183	\$6,406,370	\$7,561,372
Number of Customers	26,978	27,152	27,387	27,650	27,826	28,040	28,147
OM&A cost per customer							
O&M per customer	\$64	\$68	\$61	\$58	\$56	\$58	\$67
Admin per customer	\$158	\$153	\$158	\$161	\$170	\$170	\$201
Total OM&A per customer	\$222	\$221	\$218	\$219	\$226	\$228	\$269

Question(s):

- a) Compared with 2016 actual, the proposed 2021 OM&A cost per customer will increase 21%. Compared with 2019 actual, the proposed 2021 OM&A cost per customer will increase 19%. Please explain how customers will benefit from this increase.
- b) Using the 2019 Yearbook of Electricity Distributors, please compare HHHI's OM&A cost per customer with a peer group of local distribution companies (LDCs). Please explain the criteria for peer group selection and provide the list of selected LDCs. Please discuss the comparison results.

Climate Change Plan

4-Staff-52

Ref: Exhibit 4, pp. 32-35

Preamble:

HHHI has created a climate change budget to support low carbon initiatives and activities. A total proposed OM&A budget of \$279,700 is requested, broken down into five categories in Table 15 as follows:

Table 15 - Summary of Climate Change Plan

<i>Description</i>	Amount
<i>Supporting Low-Carbon Mobility</i>	\$66,700
<i>Preparing for EV Charging Impacts</i>	\$80,000
<i>Renewable / Low-Carbon Energy</i>	\$20,000
<i>Energy Conservation Initiatives</i>	\$60,000
<i>Climate Change Coordinator</i>	\$53,000
Total	\$279,700

Question(s):

- a) OEB staff understands that the Town of Halton Hills developed its 2020-2025 Corporate Energy Plan in July 2019.⁵ Did HHHI develop its own Climate Change Plan? If so, please provide a copy. If not, please provide all relevant documents supporting HHHI's Climate Change Plan.
- b) Please confirm that all OM&A amounts in the Climate Change Plan relate to the implementation of the Town of Halton Hill's Corporate Energy Plan.
- c) Please confirm the proposed budgets were developed in consultation with the Town of Halton Hills and are consistent with their expectations.
- d) Please clarify whether there is any capital budget included in the proposed capital expenditures relate to HHHI's Climate Change Plan.

⁵ Accessible online: <https://www.haltonhills.ca/en/residents/resources/Documents/Town-of-Halton-Hills-2020-2025-Corporate-Energy-Plan.pdf>

- e) For the 'Supporting Low-Carbon Mobility' budget (\$66,700), it includes nine potential EV charging locations that were based on a draft policy of the Town of Halton Hills.
- i. Please provide an update on whether this draft policy has been finalized. If yes, please confirm if there are any changes to the proposed locations.
 - ii. Please provide the Town of Halton Hills' total Low-Carbon Mobility budget.
 - iii. Please explain how the proposed budget of \$66,700 will assist with the installation of EV charging facilities. Please also provide a breakdown of the activities that this budget will support. For example, will the proposed budget be used to fund evaluation studies at any EV charging locations that have not been finalized to proceed?
 - iv. HHHI noted that "Through its affiliate companies, HHHI has already supported the installation of EV charging stations at the Acton Arena and Mold-Masters SportsPlex as well as two (2) charging stations at the HHHI Administration Building". Please explain why activities to assist the installation of these new charging stations cannot continually being done by HHHI's affiliate companies.
- f) For the 'Preparing for EV Charging Impacts' budget (\$80,000), HHHI states that it will conduct feeder impact assessments on three distribution feeders.
- i. Has HHHI done any analysis to predict EV load within its own distribution system over the 2021-2025 period? If so, please provide results of the analysis.
 - ii. Which feeders (and their locations) have been identified for review, how were the feeders identified and what are the associated timelines to conduct the impact assessments?
 - iii. Please provide a breakdown of the specific areas of interest that will be reviewed in the feeder impact assessments.
- g) HHHI requests a budget of \$60,000 to assist the Town of Halton Hills in promoting the Home Retrofit Acceleration Program.
- i. Please discuss what this program is about:
 - Please clarify whether Home Retrofit Acceleration Program is a pilot program, or a new program that has been approved by the IESO.
 - Does this program originate from the delivery of local utility programs after the CFF-wind down framework?
 - ii. Please provide a breakdown of the proposed \$60,000 budget, including program delivery costs, funding for new position(s) including

the number of utility FTE(s) or third party contractor, and/or administration expenses, where available.

- iii. Please clarify whether HHHI is seeking OM&A funding to deliver Home Retrofit Acceleration Program, and the appropriateness of doing so. As noted in section 2.4.6 of the Filing Requirements, recovering CDM program delivery costs (including staff labour to such dedicated programs) should not be included in revenue requirement.

- h) Please confirm whether the Town of Halton Hills has indicated the need for a Climate Change Coordinator position and whether it has already employed a similar role.
 - i. Please discuss the objectives and responsibilities of this new position.
 - ii. Please confirm that this new position is dedicated entirely towards the initiatives set by the Town of Halton Hills. If this position will also assist with other utility tasks, please discuss.

- i) Please confirm that \$20,000 is requested to provide research money to McMaster University on the Integrated Community Energy Harvesting System demonstration project, which has received approval by the university to proceed.
 - i. Please discuss the direct benefits that HHHI has received from this research, and the incremental benefits that the utility plans to receive from the continuation of this research.

Cyber Security

4-Staff-53

Ref: Exhibit 4, pp. 35-37

Preamble:

HHHI budgeted \$212,441 for Cyber Security.

Question(s):

- a) Please provide a breakdown of historical (2018-2019), bridge (2020), and forecast (2021) cyber security costs by programs (Managed Detection & Response, Demilitarized Zone (DMZ) – Web Server & Mail Gateway, and Storage Area Network (SAN) Replacement).

Incremental OM&A Costs for the New Municipal Transformer Station

4-Staff-54

Ref: Exhibit 4, pp. 37-38

Preamble:

OEB staff notes that incremental OM&A costs associated with the new MTS were projected as \$120,250 for 2019 and \$131,515 for 2020 in the ICM application.⁶

Question(s):

- a) Please provide a breakdown of incremental OM&A costs projected in the ICM application by items listed in Table 17, page 38 of Exhibit 4 for 2019 (\$120,250) and 2020 (\$131,515). Please explain drivers for the increase in OM&A from what projected in the ICM application (\$131,515) to the current Application (\$190,352).

2021 Test Year vs. 2019 Actual

4-Staff-55

Ref: Exhibit 4, pp. 43-44

Preamble:

HHHI identified reasons for the increase in distribution OM&A between 2021 test year and 2019 actuals, including the portion of labor costs allocated to OM&A versus capital and increase in vegetation management costs.

Question(s):

- a) HHHI stated that it will strategically focus on maintenance mode as opposed to historical level of capital expenditures. As a result, the 2021 test year OM&A labour/burden allocation increased to 30% OM&A/70% capital from 20% OM&A/80% capital. Please explain the basis of this strategy.
- b) Please provide historical (2016-2019) and forecast (2020-2021) spending on vegetation management.

Compensation

4-Staff-56

Ref: Exhibit 4, pp. 47-50

Question(s):

- a) HHHI stated that “HHHI’s total compensation program is reviewed and analyzed for its competitiveness against three (3) market comparators”. Please provide

⁶ EB-2018-0328, ICM Application, December 3, 2018, page 18.

results of this analysis (e.g. What's HHHI's rank among the market comparators?)

- b) HHHI noted that "In setting its total compensation, HHHI uses the 50th percentile against the public and private sectors, with a primary focus on maintaining a 50th percentile position against its LDC market competition". Please explain why it is reasonable to use the 50th percentile as the target in setting HHHI's total compensation.
- c) HHHI provided the annual average wage increase for non-union/management employees (Exhibit 4, page 49, Table 22). Please provide the minimum and maximum wage increase for non-union/management employees over the historical (2016-2019) and forecast (2020-2021) periods.
- d) Please provide a revised version of Appendix 2-K, Employee Costs, to reflect requests as follows:

A breakdown of management positions by executives and non-executive positions.

A breakdown of non-management employees by union and non-union.

To show the expensed and capitalized compensation costs for historical (2016-2019), bridge (2020), and the test year (2021).

Shared Services and Corporate Cost Allocation

4-Staff-57

Ref: Exhibit 4, pp. 65-73

Preamble:

For the 2021 test year HHHI forecasted \$413.9k for services provided by HHHI to parent and affiliate companies, and \$248.1k for services purchased from parent and affiliate companies.

Question(s):

- a) For services HHHI purchases from affiliate companies with a pricing methodology of "Cost plus mark up".
 - i. Please specify the percentage of mark up for each service (Electrical Contracting Services and Smart Meter Repairs, and Arborist and Tree Trimming Services).
 - ii. Please explain the basis of setting the mark up for each service.

- b) It was noted that no amounts have been included for the 2021 test for two services provided to HHHI because the information was not available at the time of filing the Application. Will HHHI update the 2021 services purchased from affiliate companies once the information becomes available?

LRAMVA

4-Staff-58

Ref: LRAMVA workform, Tabs 5 and 8

LRAMVA, Tab “Streetlight Details”

Preamble:

HHHI did not confirm it received reports from the Town of Halton Hills to validate the number and type of bulbs replaced/retrofitted through the IESO program. OEB staff also has other clarification questions regarding the calculation of street lighting savings.

Question(s):

- a) Please confirm that HHI received reports from the Town of Halton Hills to validate the number and type of bulbs replaced/retrofitted through the IESO program. If not, please discuss the source of the data and validation process to confirm the number and type of bulbs changed.
- b) Please confirm whether the energy savings related to street lighting upgrades (2015, 2016 and 2017) have been deducted from the respective saveOnEnergy business retrofit programs in Tab 5.
- i. If not, please quantify the energy savings related to street lighting upgrades from the 2015, 2016 and 2017 saveOnEnergy business retrofit programs. Please revise Tab 5 of the LRAMVA workform as appropriate.
- c) In Tab 8, there is a note at row 111 of this spreadsheet indicating: “incremental street light savings removed”.
- i. Please confirm that the street light savings do not include savings due to natural replacements that were done outside of the saveOnEnergy CDM program.
- ii. Please confirm that the savings not attributable to the IESO program have been removed from the analysis.
- d) In Tab 8, please confirm that the billed kW amounts for all projects (column B) represent the level of demand from new LED replacements occurring each month in the year that are incremental from the previous month.

- i. Please discuss the appropriateness of calculating 2015 persisting savings into 2016, 2017 and 2018 using gross kW savings (column D). Please update the savings persistence calculation using net kW reductions (column G) in 2015.
- ii. Please discuss the appropriateness of calculating 2016 persisting savings into 2017 and 2018 using gross kW savings (column D). Please update the savings persistence calculation using net kW reductions (column G) in 2016.

4-Staff-59

Ref: LRAMVA Workform, Tab 1-a

Question(s):

- a) If HHHI made any changes to the LRAMVA workform as a result of its responses to the above LRAMVA interrogatories, please file an updated LRAMVA workform, and confirm the LRAMVA balance requested for disposition, the disposition period and the revised rate riders.
- b) Please confirm any changes to the LRAMVA workform in response to these LRAMVA interrogatories in "Table A-2. Updates to LRAMVA Disposition (Tab 1-a)".
- c) If there is any supporting documentation filed in response to the above interrogatories, please ensure that all confidential information that may be filed be removed or treated in accordance with Rule 9A of the OEB's *Rules of Practice and Procedure*.

4-Staff-60

Ref: Exhibit, pages 61-63

Preamble:

HHHI forecasted \$1,087,739 in post-employment benefits in 2021, which is to be recorded on an actuarial valuation basis. HHHI explains that:

The annual expense, realization of any gain/(loss) and liability are determined in accordance with IFRS Standards-Employee Benefits IAS 19 and supported by an actuarial valuation, completed every three years. The current actuarial valuation is for the period ended December 31, 2019.

OEB staff notes that the 2019 actual post-employment expense is \$940,115, which is based on the actuarial report for the post-retirement liability as at December 31, 2019.

	IAS 19	IAS 19	IAS 19	IAS 19	IAS 19	IAS 19
	31-Dec-2016	31-Dec-2017	31-Dec-2018	31-Dec-2019	31-Dec-2020	31-Dec-2021
Accrued benefit liability	763,169	902,827	922,998	940,115	1,078,958	1,087,739

Question(s):

- a) Please explain how HHHI extrapolates the 2019 results for 2020 and 2021.
- b) Given the current low interest rate environment arising from the COVID-19 pandemic, please explain whether the extrapolation mentioned above should be revised to recognize that discount rates in 2019 are potentially no longer representative of those expected in future years?
 - i. If so, please provide a revised 2021 extrapolated result.
 - ii. If not, why not.

Exhibit 5 – Cost of Capital

5-Staff-61

Ref: Exhibit 5/Section 5.2 Capital Structure/page 4

Preamble:

OEB staff notes different weighted average cost of capital rates in the Application. On line 4, it shows 6.02% while on line 21, it shows 5.46%.

Question(s):

- a) Please clarify the weighted average cost of capital rate used in the Application used to derive the 2021 test year revenue requirement.

5-Staff-62

Ref: Exhibit 5/Section 5.2 Capital Structure/page 5

Preamble:

HHHI provided an overview of its capital structure in the Table below.

Table 1 - Overview of Capital Structure³

<i>Particulars</i>	2016 Cost of Capital			2021 Cost of Capital			2021 Deemed
	(%)	(%)	\$	(%)	(%)	\$	(%)
<i>Debt</i>							
<i>Long-term Debt</i>	56%	2.89%	\$994,618	56%	3.48%	\$2,029,274	4.16%
<i>Short-term Debt</i>	4%	1.65%	\$40,539	4%	2.75%	\$114,674	2.29%
<i>Total Debt</i>	60%	2.81%	\$1,035,157	60%	3.43 %	\$2,143,948	4.04%
<i>Equity</i>							
<i>Common Equity</i>	40%	9.19%	\$2,257,893	40%	8.52%	\$3,552,813	9.00%
<i>Preferred Shares</i>							
<i>Total Equity</i>	40%	9.19%	\$2,257,893	40%	8.52%	\$3,552,813	9.00%
<i>WACC</i>	100%	5.36%	\$3,293,050	100%	5.46%	5,696,761	6.02%

OEB staff notes that cost of capital parameters summarized in Table 1 above do not reconcile with parameters provided in the RRWF, Cost of Capital tab.

Question(s):

- a) For the right-most column titled “2021 Deemed”, please explain the basis, and identify the source, for each of the cost of capital parameters:
 - i. Long-term debt rate of 4.16%
 - ii. Short-term debt rate of 2.29%
 - iii. Return on equity (ROE) of 9.00%

- b) Please provide a copy of Table 1, adjusted as necessary as a result of responses to interrogatories, in working Microsoft Excel format.

5-Staff-63

Ref: Exhibit 5/Section 5.2 Capital Structure/page 5

Preamble:

HHHI provided actual ROE performance compared to deemed ROE in the table below for the period of 2016 through 2019.

Table 2 - Actual ROE compared to Deemed ROE

<i>Return on Equity</i>	Deemed	9.19%	9.19%	9.19%	9.19%
Achieved	6.76%	6.98%	7.07%	4.24%	

OEB staff notes that the achieved 2019 ROE is 4.24% and is 4.95% below the deemed ROE of 9.19% (i.e. more than 300 basis points below the last approved ROE for HHHI).

HHHI submitted its 2019 ROE Form with the OEB on June 1, 2020.

Question(s):

- a) Please provide more detailed drivers (e.g. OM&A programs and/or capital projects that lead to higher expenditures) of the ROE under performance.

5-Staff-64

Ref: Exhibit 5/Section 5.5.4 Long-Term Debt/page 14

Preamble:

On page 14, HHHI provides the following as quoted from the settlement proposal in its last rebasing application:⁷

“HHHI agrees that prior to its next cost-of-service application, it will conduct a review of long-term debt financing options available to HHHI and will file the results of such review in its next cost-of service application.”

HHHI then states that it conducted a review of its long-term debt financing options and is restructuring its long-term debt as follows:

1. Promissory Note \$16,141,970
2. Interest Rate Swap #1 \$23,000,000
3. Interest Rate Swap #2 \$31,077,000

Question(s):

- a) Is there a report summarizing the details of HHHI’s review of its long-term debt financing options? If so, please file it on the record.

⁷ EB-2015-0074

- b) If not, please explain why a report of the debt financing is not available, and why it believes that the evidence provided in this Application satisfies the settlement agreement from the last rebasing application.
- c) Please explain how HHHI conducted its review of its long-term debt. Please identify options considered. Please indicate any consultations that helped HHHI with this review.

5-Staff-65

Ref: Exhibit 5/Section 5.5.4 Long-Term Debt/page 15

Preamble:

HHHI entered into an interest rate swap agreement (Interest Rate Swap #1, a 30 year instrument) to pay a fixed rate of interest of 4.095%, exclusive of bank transaction fees, in lieu of prime rate on its capital MTS loan.

HHHI also entered into a contractual agreement (Interest Rate Swap#2) with a fixed rate of interest of 2.951% exclusive of bank transaction fees.

Question(s):

- a) For each of Interest Rate Swap # 1 and Interest Rate Swap #2, please provide an estimate of the effective annual rate for Interest Rate Swap #1, inclusive of bank transaction fees.

5-Staff-66

Ref: Exhibit 5/Section 5.5.6 Notional Debt/pp. 17-19

Preamble:

On page 17 of Exhibit 5, HHHI states that:

As at December 31, 2019 HHHI's notional debt position is 73.5% Debt and 26.5% Equity. HHHI is forecast to remain outside the deemed 60% Debt to 40% Equity notional debt position in 2020 Bridge Year and 2021 Test Year. There is no profit or loss on redemption of debt or preferred shares.

On pages 18-19, HHHI provides a Table showing various calculations from 2016 to 2021 test year.

OEB staff note the following data on HHHI's calculated debt and equity thicknesses (percentage of total capital funded by debt or equity), shown towards the bottom of page 18.

Year	2016	2017	2018	2019	2020 Bridge Year	2021 Test Year
Debt (%)	47.1%	56.6%	77.9%	73.5%	65.5%	63.3%
Equity (%)	52.9%	43.4%	22.1%	26.5%	34.5%	36.7%

Question(s):

- a) Please provide a copy of Table 8 in working Microsoft Excel format.
- b) Please explain the purpose of Table 8, how HHHI has used it in preparing its application.
- c) Please explain the reasons behind the swings from underleveraging in 2016 and 2017, to a material overleveraging in 2018 and 2019, with debt thickness exceeding 70% in both years.
- d) Please explain the gradual movement back towards the 60% deemed debt thickness in 2020 and 2021, and how HHHI is accomplishing this.
- e) HHHI negotiated new swap loan agreements in 2019, at a time when the utility was overleveraged. In HHHI's view, did its heavy debt thickness factor into the terms and rates of the swap agreements? Please explain.

5-Staff-67

Ref: Exhibit 5/Appendix 5-1 Promissory Note

Preamble:

It was stated that "Interest shall be payable by Halton Hills Hydro Inc. to The Corporation of the Town of Halton Hills, or assign, at a rate of interest per annum, compounded annually not in advance, prescribed, from time to time, by the Treasurer of The Corporation of the Town of Halton Hills in accordance with the provisions of By-laws No. 00-100 and 01-130 of The Corporation of the Town of Halton Hills". There is no explicit interest rate, nor detailed terms and conditions for altering the rate, documented in the Promissory Note.

Question(s):

Please provide the following:

- a) Copies of By-laws 00-100 and 01-130.
- b) A schedule showing all of the interest rates prescribed by the Treasurer of The Corporation of the Town of Halton Hills for the Promissory Note, and the dates at which the rate changed.

Exhibit 7 – Cost Allocation

7-Staff-68

Ref: Exhibit 3, page 30

Cost Allocation Model, Tab I6.2 Customer Data

Preamble:

The load forecast includes 20,852 Residential customers, and 1,876 General Service < 50 kW customers. The cost allocation model includes 20,758 Residential customers and 1,863 General Service < 50 kW customers.

Question(s):

- a) Please reconcile the difference.

7-Staff-69

Ref: Revenue Requirement Work Form (RRWF), Tab 4. Rate Base.

Cost Allocation Model, Tab I3 TB Data, Tab O1 Revenue to cost.

Chapter 2 Appendix 2 BA

Preamble:

The cost allocation model has an allocated rate base of \$104,079,787. The Rate Base from the RRWF is \$104,249,216. The cost allocation model has \$7,737,808 of OM&A expenses included in the working capital calculation on sheet O1 Revenue to cost, while the RRWF uses \$7,432,968 of controllable expenses in its calculation of working capital allowance.

USoA account 1606 Organization is determined by the cost allocation model to be a Non-Distribution Asset and is not included in the rate base by the cost allocation model. It is included in the rate base on Appendix 2-BA.

Question(s):

- a) Please explain what HHHI has recorded in the asset 1606 Organization, and why HHHI believes it should, or should not be included in Rate Base.

- b) Please reconcile the differences between the RRWF and the cost allocation model.

7-Staff-70

Ref: Cost Allocation Model, Tab I6.1 Revenue, Tab I6.2 Customer Data

Preamble:

The General Service 1,000 to 4,999 kW rate class has nine customers with 168,373 kW of forecasted demand. One customer is identified as requiring use of HHHI's line transformation. A total of 207,107 kW of demand is subject to transformer ownership allowance.

Question(s):

- a) Please explain how more than the entire class load is subject to a transformer ownership allowance.

- b) Please provide revisions as required.

7-Staff-71

Ref 1: Cost Allocation Model, Tab I6.2 Customer Data

Preamble:

HHHI has identified that 200 of 219 General Service 50 – 999 kW customers, and one of nine General Service 1,000 to 4,999 kW customers require the use of HHHI's line transformers. However, it indicates that all customers require the use of HHHI's secondary distribution system.

All the residential and General Service under 50 kW customers are counted as requiring both line transformation and secondary distribution.

Question(s):

- a) Please describe the connection arrangement where a customer is deemed to be taking secondary distribution but does not require the use of a HHHI line transformer.

- b) Does HHHI have any residential customers connected directly to HHHI's primary distribution system, such as customers in a multi-unit building?

- c) Does HHHI have any analogous general service < 50 kW customers directly to HHHI's primary distribution system, such as those in a multi-unit development?

7-Staff-72

**Ref: Exhibit 7, page 14.
Exhibit 8, page 15.**

Preamble:

HHHI states that it “proposes to maintain the revenue to cost ratios similar to what was approved in HHHI’s 2016 COS (EB-2015-0074).” It states that it “helps to mitigate any large rate increases.” HHHI makes specific reference to the residential rate class where it proposes to return the revenue to cost ratio to near the 2016 approved ratio of 95.09% from the cost allocation result of 105.67%. As a result, it proposes to increase the fixed charge from \$27.34 / month to \$37.31/ month, an increase of 36%.

In the General Service 1,000 to 4,999 kW rate class, the revenue to cost ratio is proposed to return to 120% from the cost allocation result of 71.35%. The fixed charge is proposed to increase from \$192.10 / month to \$510.87 / month (166%), and the variable charge is proposed to increase from \$3.5931 to \$8.3308 / kW (132%).

Question(s):

- a) Please indicate the main drivers of the change in revenue to cost ratios from 2016 approved to the 2021 cost allocation results.
- b) In reference to the changes noted in part a) please explain why the revenue to cost ratios approved in EB-2015-0074 with 2016 forecast costs and usage remain appropriate for use in 2021.
- c) Please provide references to any policy instruments or past decisions which support HHHI’s proposal to apply revenue to cost ratios from a previous proceeding into the current proceeding.
- d) Please confirm that had no adjustments to the revenue-to-cost ratios from cost allocation been made, all rate classes would have experienced the same percentage increase to base rates or explain why this is not the case.
- e) Please provide a scenario where the revenue to cost ratios as adjusted as follows:
 - i. Ratios outside the boundaries from cost allocation are brought to the nearest boundary.
 - ii. Any resulting over / under collection is addressed by moving ratios above / below 100% towards 100% only as required to recover the revenue requirement.

7-Staff-73

Ref: Chapter 2 Appendix 2-Q

Preamble:

HHHI Hydro has entered \$0 associated with Distribution Stations, Low Voltage (LV) Line, and LV Line #2.

Question(s):

- a) Please indicate the rationale behind the assignment of \$0 of OM&A to these assets.
- b) Has HHHI considered any means of allocating its OM&A for maintaining and operating distribution stations, and low voltage lines to these assets, and if so, please provide the required details to perform a calculation.
- c) Please provide the total OM&A associated with maintaining and operating distribution stations, and low voltage lines.
- d) Please provide total km of and total kVA of distribution lines in HHHI's service territory. If exact values are not readily known, please provide estimates, and describe the means used to create the estimates.

Exhibit 8 – Rate Design

Specific Service Charges

8-Staff-74

Ref: Exhibit 8/Section 8.2.8 Specific Service Charges

Preamble:

HHHI does not propose changes to its retail and specific service charges in the Application with the exception of the wireline pole attachment charge, which will be updated per OEB's decision.

Question(s):

- a) Please confirm retail service charges listed in Table 13 (Exhibit 8, page 22) reflect the OEB's generic retail service charges.
- b) Please confirm HHHI proposes to update its retail service charges and the wireline pole attachment charge annually per the OEB's decisions.

- c) Please confirm HHHI proposes to maintain its specific service charges (except the pole attachment charge) at the 2020 approved levels for the 2021-2025 rate period.

Rate Design

8-Staff-75

Ref: Exhibit 8, page 13.

Preamble:

The General Service < 50 kW rate class has a fixed charge that is already above the Minimum System with Peak Load Carrying Capability (PLCC) Adjustment (commonly referred to as the ceiling). HHHI is proposing to increase the fixed charge from \$29.38 to \$48.43.

In three rate classes, the fixed charge is presently below the ceiling, and HHHI is proposing to increase it above the ceiling. These are General Service 50 to 999 kW, General Service 1,000 to 4,999 kW, and Street Lighting.

Question(s):

- a) Please provide the variable charges that would result from
- i. Keeping the general service < 50 kW fixed charge at the present 2020 charge of \$29.38
 - ii. Increasing the fixed charges for the General Service 50 to 999 kW, General Service 1,000 to 4,999 kW, and Street Lighting rate classes to the respective ceiling charges.

Standby Charge

8-Staff-76

Ref: Exhibit 8, pages 16-17.

Preamble:

HHHI states that it “was approached by a customer (Customer 1 as referred to in Exhibit 3) who is installing a PSUP - Combined Heat and Power (“CHP”) CDM program in 2020. The CHP will reduce the customer’s demand. The customer has requested that HHHI retains stand-by capacity.”

HHHI has referenced the OEB Staff Report to the Board - Rate Design for Commercial and Industrial Electricity Customers - Rates to Support an Evolving Energy Sector. It “is proposing the below calculated Stand-by / Capacity Reserve Charge for Customer 1 based on a CHP faceplate capacity of 1,200 kW and the Capacity Factor of 65%.”

With respect to billing, HHHI states that:

Delivery Component Standby Charge - the charge is based on the applicable General Service 50 to 999 kW or General Service 1,000 to 4,999 kW Distribution Volumetric Charge applied to the contracted amount (e.g. nameplate rating of generation facility multiplied by Capacity Factor).

Question(s):

- a) Would the standby charge apply to any customers that have already installed energy resources such as load displacement generation prior to 2020? If so, please provide details on the amount of installation date, amount of load displaced, how the facility would be operated (to displace load, peak shave, etc.), and how HHHI would apply standby charges to these customers.
- b) Was the prospective standby customer, and any other anticipated standby customers consulted regarding the standby proposal, and what were the responses?
- c) How was the capacity factor of 65% selected?
- d) Will there be an opportunity for the capacity factor to be adjusted in future years for actual operation?
- e) Please provide sample tariff and/or conditions of service wording that would reflect the proposal to use a capacity factor of 65% for this customer, and how any future standby customers would be charged.
- f) Please provide any capacity thresholds that would apply to customers requiring new standby service.
- g) Would standby customers be subject to gross load billing for RTSRs? If so, please provide details with respect to the scenarios under which gross load billing would apply, and how the volumes would be determined.
- h) Please provide examples for how customers would be charged under a variety of scenarios
 - i. The load displacement facility operates the entire month without interruption or outage.
 - ii. The load displacement facility experiences a full outage, and HHHI is required to provide backup service.

- iii. The load displacement facility experiences a partial outage, and HHHI is required to provide backup service.
- iv. A customer owns a generator and can instantly shed load to not require a backup service.
- v. A customer owns a generator and operates it intermittently such that it frequently exposes its full load to HHHI.

Retail Transmission Service Rates

8-Staff-77

Ref: RTSR Model, Tab 3. RRR Data: Tab 5: Historic Wholesale

EB-2019-0039 Rate Generator Model Tab: 4. Billing Det. For Def-Var, Tab: 12: Historic Wholesale

Preamble:

The historic Wholesale and Retail volumes are provided as follows.

	EB-2019-0039	RTSR Model	Change
Wholesale			
Network	1,080,688 kW	1,013,819 kW	-6.2%
Line Connection	1,115,337 kW	1,044,880 kW	-6.3%
Transformation Connection	1,115,337 kW	1,033,799 kW	-7.3%
Retail			
Residential	208,411,376 kWh	202,110,918 kWh	-3.0%
General Service < 50 kW	51,979,121 kWh	50,654,668 kWh	-2.5%
General Service 50 – 999 kW	403,515 kW	418,610 kW	3.7%
General Service 1,000 – 4,999 kW	248,453 kW	219,091 kW	-11.8%
Unmetered Scattered Load	953,473 kWh	962,029 kWh	0.9%
Sentinel Light	695 kW	680 kW	-2.2%
Street Light	3,043 kW	3,105 kW	2.0%

Wholesale volumes have decreased approximately 6-7%, while Retail volumes have typically varied between a decrease of 2.5% and an increase of 2.0%. If the General Service 50-999 kW and General Service 1,000 – 4,999 kW rate classes were viewed in aggregate, it would fall in this range as well.

	EB-2019-0039	RTSR Model	Change
General Service 50 – 999 kW	403,515 kW	418,610 kW	3.7%

General Service 1,000 – 4,999 kW	248,453 kW	219,091 kW	-11.8%
Total	651,968 kW	637,701 kW	-2.2%

Question(s):

- a) Please confirm that the tables above reflect the quantities underpinning the approved RTSRs in EB-2019-0039, and the proposed RTSRs in this proceeding, or correct as appropriate.

- b) Please explain why wholesale quantities have decreased more than retail quantities.

Exhibit 9 – Deferral and Variance Accounts

9-Staff-78

Ref: Exhibit 9 – 9.5.1 1588 – RSVA – Power – page 52-53

Preamble:

HHHI confirmed that it has fully implemented the OEB’s February 21, 2019 accounting guidance for commodity accounts⁸. The accounting guidance was utilized to re calculate and true-up the transactions related to the RPP settlement and the allocation of IESO Charge Type (“CT”) 148 – Class B Global Adjustment Settlement Amount going back to January 1, 2017 as was requested by OEB Staff during the interrogatory process in HHHI’s 2020 IRM application (EB-2019-0039).

In the decision and order for EB-2019-0039, the OEB stated its expectations that HHHI will apply for disposition of all eligible Group 1 account in its 2021 rate application.

Question(s):

- a) Please confirm that no adjustment has been made to balances of Group 1 accounts for any prior periods that were disposed of on a final basis.

- b) Please confirm that HHHI is requesting disposition of its 2017, 2018 and 2019 Group 1 DVA balances on a final basis. If this is not the case, please explain.

- c) Please confirm that HHI has completed its review of its processes in the context of the commodity accounting guidance and that any required changes to the accounting for Account 1588 and Account 1589 have been implemented as it

⁸ OEB -Accounting Guidance Related to Commodity Pass-Through Accounts 1588&1589. February 21, 2019.

relates to its 2017, 2018 and 2019 historical balances. If this is not the case, please explain.

- d) Please confirm that there are no systemic issues with HHHI's RPP settlement and related accounting processes as it relates to its 2017, 2018 and 2019 historical balances, with respect to compliance with the accounting guidance.
- e) If there are any noted issues, please explain whether adjustments to Group 1 DVA balances that have yet to be disposed of on a final basis have been quantified, including balances that have been cleared on an interim basis or not cleared at all in a prior proceeding.
- f) If adjustments have not been quantified, please provide a timeline as to when the applicant expects any discrepancies to be resolved.
- g) If material adjustments were identified, please provide the following for each adjustment:
 - i. Quantification and nature of the adjustment
 - ii. The period in which the adjustment relates to (i.e. in relation to the flow of kWh)
 - iii. Detailed explanation of the adjustment, including how it was identified, the reason for the adjustment, the impact to each of Accounts 1588 and 1589.
 - iv. Show how it has been included as a principal adjustment to Account 1589 in the GA Analysis Workform and Account 1588 in Appendix A GA Methodology Description Questions on Accounts 1588 & 1589, Question 1
 - v. Describe the steps taken to include these adjustments in the DVA Continuity Schedule and balances requested for disposition in this proceeding. Please also provide the cells in the DVA Continuity Schedule where these adjustments were made.
 - vi. Please provide 1588 net transactions (including principal adjustments) as a percentage of the cost of power purchases as filed in the RRR for each year requested for disposition. If the result is greater than 1%, please explain given this account only captures loss factor differentials.

9-Staff-79

**Ref: PILs Workform, Tab T8; DVA Workform, Tab 2b;
OEB's Letter "Accounting Direction Regarding Bill C-97" dated July 25,
2019
Exhibit 9, page 44**

Preamble:

HHHI has implemented accelerated CCA in the PILs model as a result of the new Accelerated Investment Incentive Program (AIIP). In the OEB's July 25, 2019 letter Accounting Direction Regarding Bill C-97 and Other Changes in Regulatory or Legislated Tax Rules for Capital Cost Allowance, it states that:

The OEB recognizes that there may be timing differences that could lead to volatility in tax deductions over the rate-setting term. The OEB may consider a smoothing mechanism to address this.

The letter also states that:

The OEB expects Utilities to record the impacts of CCA rule changes in the appropriate account (Account 1592 - PILs and Tax Variances and similar accounts for natural gas utilities and OPG) for the period November 21, 2018 until the effective date of the Utility's next cost-based rate order. For the purposes of increased transparency, the OEB is establishing a separate sub-account of Account 1592 - PILs and Tax Variances – CCA Changes specifically for the purposes of tracking the impact of changes in CCA rules.

In Exhibit 9 regarding the Account 1592 – PILs and Tax Variances, HHI states that Currently, HHHI does not have a balance in DVA 1592. In the future, HHHI forecasts a possibility of requiring USofA 1592 and requests that the OEB allow this account and its sub-accounts to remain available to HHHI.

Question(s):

- a) Please confirm that all of HHHI's capital additions in the 2021 test year are eligible for the AIIP.
- b) Please discuss whether HHHI has considered smoothing of accelerated CCA for all its capital additions and what its conclusion is.
- c) Please provide a calculation showing how HHHI would smooth CCA over the IRM period, and what the impact to PILs would be under a smoothed and unsmoothed scenario.

- d) Please explain why HHHI has not recorded an amount in Account 1592, for either 2018 or 2019, given that capital additions made after November 21, 2018 would have been eligible for the accelerated deductions.

- e) Did HHHI claim any accelerated CCA deductions in 2018 or 2019? Please reconcile this response with the reply in part d).