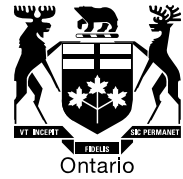


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BY EMAIL

December 18, 2018

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
27th Floor
2300 Yonge Street
Toronto ON M4P 1E4

Dear Ms. Walli:

**Re: Toronto Hydro-Electric System Limited (Toronto Hydro)
Application for 2020-2024 Rates
OEB Staff Interrogatories
Board File Number: EB-2018-0165**

In accordance with the Decision on Confidentiality and Procedural Order No. 2, please find attached OEB staff's interrogatories in the above noted proceeding. Toronto Hydro and all intervenors have been copied on this filing.

Toronto Hydro's responses to interrogatories are due by January 21, 2019.

Yours truly,

Original Signed By

Lawrie Gluck
Case Manager

cc: All parties in EB-2018-0165

TORONTO HYDRO-ELECTRIC SYSTEM LIMITED

2020-2024 RATES

EB-2018-0165

OEB STAFF INTERROGATORIES

December 18, 2018

Exhibit 1A – Administration

Planned Evidence Updates

1A-Staff-1

Ref: Updated Exhibit 1A / Tab 3 / Schedule 1 / Appendix B

Question(s):

- a) Please provide a detailed list of the 2018 financial figures that will be updated as part of the planned evidence update (Updated Exhibit 1A / Tab 3 / Schedule 1 / Appendix B / p. 2).
- b) Please advise whether Toronto Hydro-Electric System Limited (Toronto Hydro) expects that the 2018 financial figures will result in changes to its 2020-2024 proposals. For example, if 2018 actual closing rate base is lower than forecast in the pre-filed evidence will Toronto Hydro reduce its 2020-2024 rate base proposals to reflect the likelihood that its opening 2020 rate base will be lower than forecast.

Exhibit 1B – Requests and Rationale

UMS Group - Unit Cost Benchmarking Report

1B-Staff-2

**Ref: Exhibit 1B / Tab 2 / Schedule 1 / pp. 23-24
Exhibit 1B / Tab 2 / Schedule 1 / Appendix B**

Question(s):

- a) Please provide a discussion of the purpose of the unit cost benchmarking study with respect to Toronto Hydro's application. Please advise, specifically, whether the UMS Group study is intended to support the custom stretch factor proposed by Toronto Hydro.

1B-Staff-3

Ref: Exhibit 1B / Tab 2 / Schedule 1 / Appendix B

Question(s):

- a) Please advise for how many years the results of the study should be considered valid.
- b) Please advise if Toronto Hydro intends to update the study as part of each rebasing proceeding. If not, please explain.
- c) In the opinion of UMS Group, what, if any, limitations to the study's findings exist? Please describe any limitations as well as how the OEB should consider those limitations when assessing the applicability of the report's findings to Toronto Hydro and its current application.

1B-Staff-4

Ref: Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 7

Question(s):

- a) Please provide revised versions of Table II-1 (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 7) based on Phase 1 and Phase 2 normalizations.

1B-Staff-5

Ref: Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 11

Preamble:

UMS Group states that the seven asset categories represent approximately 60% of the maintenance capital budget over the 2014-2016 period and the four maintenance programs represent 50% of the preventative and predicative maintenance costs.

Question(s):

- a) Please provide the percentage that the seven asset categories constitute relative to the entire capital budget for 2014-2016 (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 11).
- b) Please provide the percentage that the four maintenance programs constitute relative to the entire OM&A budget for 2014-2016 (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 11).

1B-Staff-6

Ref: Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 11

Preamble:

UMS Group states that in considering other Ontario local distribution companies (LDCs), with the exception of the recently formed Alectra Utilities, Toronto Hydro stands unique.

Question(s):

- a) Please discuss the degree to which the inclusion of one or more Ontario LDCs in the benchmarking study would have increased the robustness of the findings (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 11). Specifically, please discuss whether the inclusion of one or more Ontario's LDCs would have provided UMS Group with a logical reference point to compare Toronto Hydro's unit cost estimates.
- b) The report states that Toronto Hydro stands unique given, amongst other factors, its ordinances, higher cost of living, and population density. The report contends that these differences drove the need for a non-Ontario peer group (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 11). In the context of the regulatory, environmental, and external factor similarities between Toronto Hydro and its Ontario LDC peers, please advise whether UMS Group agrees that these Ontario-specific factors could allow for a meaningful comparison of unit costs.

1B-Staff-7

Ref: Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 12

Question(s):

- a) Please explain how UMS Group solicited utilities for participation in the study (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 12).

1B-Staff-8

Ref: Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 17

Preamble:

Table IV-1 (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 17) highlights the results of the comparative analysis and demonstrates high levels of consistency between Toronto Hydro's costs to comparator jurisdictions across all categories

Question(s):

- a) Please advise how Toronto Hydro would respond if procurements undertaken to solicit projects related to one of the investigated asset categories or maintenance programs result in forecast costs significantly higher than those presented in the UMS Group report.

1B-Staff-9

Ref: Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 19

Question(s):

- a) Please file the supporting materials on the record of this proceeding (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 19).

1B-Staff-10

Ref: Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 23

Question(s):

- a) Please explain how the list of cost impact categories was developed.
- b) Please provide definitions for each cost impact category and explain how UMS Group determined whether a utility encountered that specific challenge.
- c) Based on Table B-2 (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 23) is it correct to conclude that Toronto Hydro encounters more of the cost impacts than any other peer included in the study?

1B-Staff-11

Ref: Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 24

Preamble:

UMS Group states that a primary differentiator between Toronto Hydro and all other Ontario LDCs is population density. Review of Table B-3 (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 24) demonstrates that Seattle Light and Power is the only utility included in the peer group with similar population density. The second closest utility has a population density 35% lower than Toronto Hydro.

Question(s):

- a) Please explain the limitations to the study's findings resulting from including only one utility in the peer group that has a population density similar to Toronto Hydro (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 24).

1B-Staff-12

Ref: Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / pp. 27-33

Question(s):

- a) UMS Group normalization for regional cost differences seems to include only wages (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 27). Please confirm whether this is correct and explain why other regional costs differences (e.g. input costs) were not considered for normalization purposes.
- b) Please advise to what degree UMS Group applied the same unit cost benchmarking normalization methodology described in Appendix C in previous studies (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / pp. 27-33). If applicable, please explain how the normalization approach applied in the Toronto Hydro study differs from other studies completed by UMS Group.
- c) Beyond those described in Appendix C, please advise whether other normalization factors exist that UMS Group considered but were not included in the study (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / pp. 27-33). If applicable, please provide these factors and explain why they were not included in the study.

- d) Please advise whether UMS group believes that the normalization process would have benefited from Ontario LDC data (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / pp. 27-33).
- e) Please identify the source(s) of the data used to populate Table B-2 (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 23) and Tables C-1 to C-10 (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / pp. 29-33).

Electricity Distributor Scorecard and 2015-2019 Distribution System Plan (DSP) Performance Measures

1B-Staff-13

Ref: Exhibit 1B / Tab 2 / Schedule 2 / p. 3

Question(s):

- a) Please explain the adjustment set out in footnote C regarding DSP implementation progress (Exhibit 1B / Tab 2 / Schedule 2 / p. 3).
- b) Please explain the decline in liquidity from 2013-2017 (Exhibit 1B / Tab 2 / Schedule 2 / p. 3).
- c) Please explain the significant overearnings in 2015 and 2016 (Exhibit 1B / Tab 2 / Schedule 2 / p. 3).

1B-Staff-14

Ref: Exhibit 1B / Tab 2 / Schedule 2 / pp. 17, 21

Question(s):

- a) Please provide a list of the DSP measures that are being replaced and provide rationale for removing these measures (Exhibit 1B / Tab 2 / Schedule 2 / p. 17 / footnote 15).
- b) Please advise whether the trend for planning efficiency (engineering and support costs) is expected to continue going forward (Exhibit 1B / Tab 2 / Schedule 2 / p. 21).

Customer Engagement

1B-Staff-15

Ref: Exhibit 1B / Tab 3 / Schedule 1 / pp. 7, 9

Question(s):

- a) Please advise whether Toronto Hydro is aware if the same customers that provided their input in Phase 1 of the customer engagement process also provided their input in Phase 2 of the process (Exhibit 1B / Tab 3 / Schedule 1 / p. 7).
- b) Please advise whether the costs associated with additional functionality of Toronto Hydro's web offerings (e.g. MyTorontoHydro) are included in the costs proposed in the current application (Exhibit 1B / Tab 3 / Schedule 1 / p. 9).

1B-Staff-16

**Ref: Exhibit 1B / Tab 3 / Schedule 1 / Appendix A / p. 1, 13
Exhibit 1B / Tab 3 / Schedule 1 / Appendix 2.1 to Appendix A**

Question(s):

- a) Please confirm that Appendix 2.1 to Exhibit 1B / Tab 3 / Schedule 1 / Appendix A is what Toronto Hydro has termed the "workbook" throughout its customer engagement evidence.
- b) Please provide the number of key account customers that participated in the Phase 2 customer engagement process (Exhibit 1B / Tab 3 / Schedule 1 / Appendix A / p. 13).

1B-Staff-17

Ref: Exhibit 1B / Tab 3 / Schedule 5

Question(s):

- a) Please file a response to any letters of comment currently on the public record for this proceeding.
- b) Going forward, please ensure that responses are filed to any subsequent letters that may be submitted in this proceeding. All responses must be filed before the argument phase of this proceeding.

Rate Framework

1B-Staff-18

Ref: Exhibit 1B / Tab 4 / Schedule 1 / p. 5

Preamble:

Toronto Hydro states:

“The OEB decided on a new methodology for the I-factor. The I-factor is based on a 30/70 weighting of labour and non-labour sub-indices and is updated annually. The labour sub-index is determined by changes in the average weekly earnings of Ontario workers, and the non-labour sub-index is determined by changes in the Canada Gross Domestic Product Implicit Price Index for final domestic demand.

Toronto Hydro proposes to use the OEB’s I-factor in its [Custom Price Cap Index] CPCI. As the value for the I-factor is updated annually, Toronto Hydro will incorporate the updated value into its CPCI to appropriately adjust base distribution rates for the following year” (Exhibit 1B / Tab 4 / Schedule 1 / p. 5).

The current electricity distribution price cap plan has been in place for five years (2014 to 2018), and 2019 will be the sixth year. The OEB may review and update the plan at some point in the future. Changes to parameters such as inflation could be considered in such a review.

Question(s):

- a) In the event that the OEB were to change its inflation measure, please provide Toronto Hydro’s views as to whether it considers it appropriate to continue with the 2-factor inflation factor for its Custom IR plan.

1B-Staff-19

Ref: Exhibit 1B / Tab 4 / Schedule 1 / p. 6

Preamble:

Toronto Hydro notes that the OEB adopted a base X-factor of 0% (excluding any stretch factor based on the annual cost benchmarking commissioned by the OEB for all electricity distributors).

Toronto Hydro states that it: "... proposes to embed the OEB's productivity with its implicit incremental stretch factor unchanged within the proposed CPCI, fixed throughout the term of the ratemaking period" (Exhibit 1B / Tab 4 / Schedule 1 / p. 6).

Question(s):

- a) Please advise whether Toronto Hydro's proposal is to fix the X plus stretch factor in its PCI formula at 0% + 0.3%, or that, if the OEB were to adopt a different base X-factor due to a generic review, Toronto Hydro would adopt the updated base X-factor? Please explain your response.

1B-Staff-20

Ref: Exhibit 1B / Tab 4 / Schedule 1 / pp. 6-7

OEB Handbook for Utility Rate Applications, p. 26

Empirical Research in Support of Incentive Rate-Setting: 2017

Benchmarking Update, August 2018, Pacific Economics Group LLC

Preamble:

Toronto Hydro proposes to use a custom stretch factor of 0.3%, based on the total cost benchmarking study of Power Systems Engineering (PSE).

Pacific Economics Group LLC (PEG) annually conducts a total cost benchmarking on behalf of the OEB, which is used to determine the cohort and stretch factor for all Ontario LDCs for Price Cap Incentive Rate-setting (IR) and similar rate adjustment mechanisms.

PEG's most recent analysis, for 2019 rate adjustment applications, was issued by the OEB on [August 23, 2018](#). In Table 4 on page 21 of that report, Toronto Hydro is assigned a stretch factor of 0.6% (cohort 5) based on 2015-2017 actual data. Toronto Hydro has also typically been assigned cohort 5 in PEG's analyses in the past.

With respect to Custom IR proposals, the OEB's Handbook for Utility Rate Applications (the Rate Handbook), issued October 13, 2016 states on page 26, with respect to the OEB's expectations for Custom IR plan proposals, that:

It is insufficient to simply adopt the stretch factor that the OEB has established for electricity distribution IRM applications. Given a utility's ability to customize the approach to rate-setting to meet its specific circumstances, the OEB would generally expect the custom index to be higher, and certainly no lower, than the OEB-approved X factor for Price

Cap IR (productivity and stretch factors) that is used for electricity distributors.

Toronto Hydro's proposal for the Price Cap Index (PCI), net of the capital and growth factors, is 0% + 0.3%. Under the standard Price Cap IR option, Toronto Hydro's IPI would be 0% + 0.6% based on the estimated stretch factor for 2019 and earlier years.

Question(s):

- a) Please explain how Toronto Hydro's proposed 2020-2024 Custom IR plan satisfies the OEB's expectation in the Rate Handbook quoted above.

1B-Staff-21

Ref: Exhibit 1B / Tab 4 / Schedule 1 / pp. 8-9

Question(s):

- a) Please provide detailed calculations for the approved 2016-2019 capital factors (C-factors) similar to what is provided in Table 2 (Exhibit 1B / Tab 4 / Schedule 1 / p. 9).
- b) Please provide the original applied for 2016-2019 C-factors from the 2015-2019 Custom IR proceeding. Please provide the detailed calculations as requested in part (a) of this question.
- c) Please provide the C-factors that would have been in place during the 2016-2019 period if cost of capital had been updated in each year as follows:
 - i. Updated only for the OEB-approved ROE;
 - ii. Updated for OEB-approved ROE and an updated weighted average cost of debt in each year.

1B-Staff-22

Ref: Exhibit 1B / Tab 4 / Schedule 1 / p. 9
Chapter 2 Appendices / Appendix 2-BA

Question(s):

- a) Please confirm that the rate base amounts for the 2021-2024 period which underpin the C-factor calculations are based on detailed forecasts of capital

additions and depreciation for each of those years (Exhibit 1B / Tab 4 / Schedule 1 / p. 9). If not, please explain.

- b) Please provide fixed asset continuity schedules (in the same format as Appendix 2-BA) for the years 2021-2024 that support the proposed rate base amounts used in the calculation of the C-factors. Please also show the rate base calculation (including the calculation of the working capital allowance amounts). If Toronto Hydro believes that such evidence is not integral to this application, please explain why.
- c) Please provide the calculations supporting each aspect of the capital-related revenue requirement (interest, ROE, depreciation and PILs) for each year 2021-2024 (Exhibit 1B / Tab 4 / Schedule 1 / p. 9).
- d) Please confirm that the OM&A and revenue offset amounts for 2021-2024 used in the C-factor calculation are calculated by inflating the starting amount in each year by I-X (Exhibit 1B / Tab 4 / Schedule 1 / p. 9).

1B-Staff-23

Ref: Exhibit 1B / Tab 4 / Schedule 1 / p. 13

Question(s):

- a) Please provide a comparison for each year 2021-2024 (and in total for the 2020-2024 period) of the revenue requirement resulting from Toronto Hydro's proposed CPCI and resulting from a standard IRM formula (I-X). For the standard I-X calculation, use the proposals and assumptions made in the current application.
- b) Please provide a comparison for each year 2016-2019 (and in total for the 2015-2019 period) of the revenue requirement resulting from Toronto Hydro's approved CPCI and resulting from a standard IRM formula (I-X). For the standard I-X calculation, use the approved I-X factors from each year.

1B-Staff-24

**Ref: EB-2017-0077 / Decision and Rate Order / p. 7
Updated Exhibit 1B / Tab 4 / Schedule 1 / pp. 14-15**

Preamble:

In its Decision and Order, dated December 14, 2017, in Toronto Hydro's 2018 rates proceeding, the OEB states that it "encourages Toronto Hydro to review the methodology for calculating the earnings sharing with OEB staff in advance of the filing of the next Custom IR or rebasing application at which time the variance account will be reviewed for disposition" (EB-2017-0077 / Decision and Rate Order / p. 7).

Question(s):

- a) Please advise whether Toronto Hydro reviewed its methodology for calculating earnings sharing with OEB staff in advance of its current filing. If not, please explain.

1B-Staff-25

Ref: Updated Exhibit 1B / Tab 4 / Schedule 1 / pp. 14-15

Preamble:

Toronto Hydro provided the methodology it uses for calculating earnings sharing during the 2015-2019 period as follows.

$$\frac{(\text{Actual non-capital revenue requirement}) - (\text{Funded non-capital revenue requirement})}{\text{Actual equity on a deemed basis}}$$

Question(s):

- a) Please provide the earnings sharing calculations based on Toronto Hydro's methodology for each year 2015-2017. Please provide and explain in detail all adjustments that are made in the calculation (Exhibit 1B / Tab 4 / Schedule 1 / p. 15 / Footnote 19).
- b) Please advise whether actual equity on a deemed basis means the deemed equity portion of actual rate base.
- c) Please advise whether Toronto Hydro agrees that the methodology it uses for calculating the earnings sharing amount is essentially a true-up of OM&A costs and revenue offsets between the amounts approved in rates and actual (subject to a ROE-related threshold to determine whether earnings sharing is required). Specifically, please confirm that actual revenues are not considered as part of the earnings sharing calculation.

- d) Please provide Toronto Hydro's understanding of the operation of the earnings sharing mechanism in terms of the following:
- i. Is earnings sharing symmetrical (e.g. if Toronto Hydro overspends OM&A on an actual basis relative to the amount approved for recovery in rates, and the earnings sharing threshold is met, does Toronto Hydro collect that amount from ratepayers)?
 - ii. Is earnings sharing cumulative (i.e. do the over and under-earning amounts net against each other over the entire 2015-2019 period)?
- e) As part of the current proceeding, is it Toronto Hydro's intent to seek final approval of the earning sharing amounts for 2015-2018 (with the 2019 balance subject to review in the 2021 rates proceeding)? Alternatively, does Toronto Hydro believe that it already has final approval of the 2015-2017 earnings sharing amounts? Please discuss what requests Toronto Hydro is making as part of the current proceeding.
- f) Please provide alternative earnings sharing calculations for 2015-2017 based on the following methodology and provide Toronto Hydro's position on the suggested approach.

$$\frac{(\text{Actual non-capital revenue}) - (\text{Funded non-capital revenue requirement})}{\text{Actual equity on a deemed basis}}$$

For calculating the actual non-capital revenue amount,

- (i) apply the approved S_{cap} in the relevant year to total base distribution revenues (with any adjustments that Toronto Hydro believes are necessary);
- (ii) subtract the amount from part (i) from the total base distribution revenues;
- (iii) add the residual amount (which OEB staff believes could be considered a reasonable proxy for the actual non-capital base distribution revenues) from part (ii) to the revenue offset amount.

The remainder of the calculation is unchanged from Toronto Hydro's proposed approach.

- g) Please provide alternative earnings sharing calculations for 2015-2017 based on a methodology that compares the utility net income amount to the deemed equity portion of actual rate base. Please make any necessary adjustments to back-out

amounts that are non-utility or are otherwise encumbered in deferral and variance accounts (DVAs) (which are subject to separate dispositions) in order to avoid double counting.

PSE – Benchmarking Study

1B-Staff-26

Ref: Exhibit 1B / Tab 4 / Schedule 2

Preamble:

Toronto Hydro retained PSE to apply econometric modelling to benchmark its historical and projected cost and reliability.

Question(s):

- a) Please confirm that the main purpose of the study is to support Toronto Hydro's proposed stretch factor.

1B-Staff-27

Ref: Exhibit 1B / Tab 4 / Schedule 2

OEB Handbook for Utility Rate Applications

Question(s):

- a) Please confirm that the PSE cost benchmarking study addresses the level of the Toronto Hydro's costs but not the appropriate rate of cost escalation. Please explain whether this is consistent with the Rate Handbook.
- b) Please explain why the weights on the OM&A input price index are fixed for all utilities when the weights for U.S. utilities are readily available.
- c) Please advise what alternatives, if any, were considered for measuring the trend in Ontario construction cost other than the Handy-Whitman index.
- d) Please explain why a 1988 benchmark year adjustment was used for all utilities when a much earlier benchmark year is possible for the U.S. utilities in the sample.

- e) Please advise whether the parameters used to calculate Toronto Hydro's cost performance come from a version of the cost model that includes Toronto Hydro in the sample.

1B-Staff-28

Ref: Exhibit 1B / Tab 4 / Schedule 2 / p. 2

Question(s):

- a) In order to facilitate an alternate analysis please provide the following data for Toronto Hydro for the years covered by the PSE study:
- i. Route-km and circuit-km of the distribution system. Please indicate if this includes the length associated with services.
 - ii. Salaries and wages included in OM&A expenses exclusive of pensions, benefits and taxes.
 - iii. Ratio of accumulated depreciation to the gross value of plant in service.

1B-Staff-29

Ref: Exhibit 1B / Tab 4 / Schedule 2 / p. 6

Preamble:

Toronto Hydro was found to be a good total cost performer in the early years of the decade, and that its performance has declined significantly under its 2015-2019 Custom IR plan and will continue to decline under the proposed 2020-2024 Custom IR plan. (Exhibit 1B / Tab 4 / Schedule 2 / p. 6 / Table 1).

Question(s):

- a) Please provide a summary table that compares Toronto Hydro's actual and target rate of return on equity for each year since the beginning of the first generation IR.
- b) Please provide Toronto Hydro's gross plant additions for each year since 2002.

1B-Staff-30

Ref: Exhibit 1B / Tab 4 / Schedule 2 / p. 16

Preamble:

PSE notes that pension and benefit expenses are included in its cost benchmarking study because “these costs appear not to be accurately disaggregated for the Ontario distributors” (Exhibit 1B / Tab 4 / Schedule 2 / p. 16).

PSE also notes that high voltage expenses have been included in Toronto Hydro’s costs (Exhibit 1B / Tab 4 / Schedule 2 / p. 16).

Question(s):

- a) Please confirm that pension and benefit expenses tend to be larger for U.S. electric utilities than for Ontario utilities because health care expenses are privately funded in the U.S. Please advise how this discrepancy has been accounted for in the model. For example, is it accounted for in the O&M price patch?
- b) Please advise whether high voltage expenses were added to the costs of all of the other sampled Ontario utilities.
- c) Please provide detailed information on Toronto Hydro’s substation and substation line capacity.

1B-Staff-31

Ref: Exhibit 1B / Tab 4 / Schedule 2 / p. 17

Question(s):

- a) Please provide the maximum peak demand variable used in the study (Exhibit 1B / Tab 4 / Schedule 2 / p. 17). Please advise whether the data has been adjusted for known differences between U.S. and Ontario reporting.

1B-Staff-32

Ref: Exhibit 1B / Tab 4 / Schedule 2 / p. 18

EB-2017-0049 / Exhibit A / Tab 3 / Schedule 2 / Attachment 2

Preamble:

PSE states, “there are eight business condition variables aside from input prices, plus a time trend variable” (Exhibit 1B / Tab 4 / Schedule 2 / p. 18).

Question(s):

- a) Some of the most cost-challenged distributors in Ontario are rural. The cost model that PSE used in its recent Hydro One Networks Inc. (Hydro One) distribution benchmarking study (EB-2017-0049 / Exhibit A / Tab 3 / Schedule 2 / Attachment 2) includes an area variable. Please explain whether PSE's cost and reliability model specifications provide balanced attention to rural and urban challenges. If not, please explain why.
- b) Please explain why there is an interaction term for urban congestion and undergrounding but not one for urban congestion and forestation or undergrounding and forestation. Are each of these pairs not equally reasonable?
- c) Please identify any other measures of density considered besides the congestion variable constructed by PSE.
- d) Please advise whether the age of plant is a driver of cost. If so, please describe how the model accounts for the effect of system age on cost. Please discuss any age variables considered in the research.
- e) Please provide the source of data for the Advanced Metering Infrastructure (AMI) variable for U.S. companies. If the EIA-861 was used, please explain whether any distinction was made between AMI vs. Automatic Meter Reading (AMR) when constructing this variable.

1B-Staff-33

Ref: Exhibit 1B / Tab 4 / Schedule 2 / p. 21

Preamble:

PSE notes that its projection for Toronto Hydro's capital cost is based on the Conference Board of Canada's projections for Engineering Structures, Electric Power Generation, Transmission, and Distribution.

PSE notes that its projection for Toronto Hydro's OM&A cost is based on Toronto Hydro's projections for 2018, 2019, and 2020 and then the inflation factor formula proposed by Toronto Hydro. (Exhibit 1B / Tab 4 / Schedule 2 / p. 21).

Question(s):

- a) Please advise whether the Conference Board of Canada's projections for Engineering Structures, Electric Power Generation, Transmission, and Distribution is a Statistics Canada variable. If so, please provide the ID number.
- b) Please compare Toronto Hydro's OM&A projections for 2018, 2019, and 2020 to the inflation factor formula for those years.

1B-Staff-34

Ref: Exhibit 1B / Tab 4 / Schedule 2 / p. 24

Preamble:

PSE states, "we determine the relative levels of utility plant asset prices for 2012 by using the City Cost Indexes for electrical work in RSMeans' Heavy Construction Cost Data" (Exhibit 1B / Tab 4 / Schedule 2 / p. 24).

Question(s):

- a) Please advise whether a weighted average of RSMeans values for cities in each service territory was considered when assigning a value for a given company.
- b) If cost in higher population cities tends to exceed that in less populous cities, does it follow that a simple average will be lower than a weighted average for distributors that are assigned multiple cities?
- c) Assuming Toronto Hydro was only assigned the RSMeans value for Toronto, does it follow that Toronto Hydro will be assigned a higher relative price level when compared to a simple average for others than it would if weighted averages were taken?

1B-Staff-35

Ref: Exhibit 1B / Tab 4 / Schedule 2 / p. 25

Preamble:

PSE states, "there are 90 utilities included in the total cost sample (this number includes Toronto Hydro)" (Exhibit 1B / Tab 4 / Schedule 2 / p. 25).

Question(s):

- a) Please advise whether the sample selection process takes into account large transfers of utility plant from transmission to distribution and vice-versa. Would the perpetual inventory method include plant formerly classified as transmission? If so, please explain.
- b) Please explain how the model controls for differing amounts of sub-transmission work done by the companies in the sample.
- c) Please explain the logic of including only Ontario distributors that are classified as urban.

1B-Staff-36

Ref: Exhibit 1B / Tab 4 / Schedule 2 / pp. 36-37

Preamble:

PSE states:

“The estimates from the total cost model are presented in the following table. The results in the table show that the cost function parameter estimates have plausible signs and magnitudes. The output variables are fully interacted based on the translog cost function specification” (Exhibit 1B / Tab 4 / Schedule 2 / p. 36).

Question(s):

- a) Please explain why the sign on the %UG coefficient is negative. How is this consistent with the hypothesis that subterranean work is a major factor in higher cost?

1B-Staff-37

Ref: Exhibit 1B / Tab 4 / Schedule 2 / pp. 37, 40-43, 45

Preamble:

PSE provides a summary of its approach to the reliability benchmarking of system average interruption frequency index (SAIFI) and customer average interruption duration index (CAIDI) for Toronto Hydro. PSE states that the approach was similar to the regression-based approach used for total cost benchmarking, but includes some different variables and different model specifications.

PSE provides summary tables of the estimated explanatory variable coefficients and associated *t*-statistics for, respectively, the SAIFI and CAIDI models (Exhibit 1B / Tab 4 / Schedule 2 / p. 43 / Tables 9 and 10).

Question(s):

- a) Please provide Toronto Hydro's system average interruption duration index (SAIDI) and SAIFI values for all historic and projected years (2005-2024) in the following forms:
 - i. All events
 - ii. Excluding events relating to loss of supply (LOS)
 - iii. Excluding events relating to major event days (MEDs)
 - iv. Excluding MEDs and LOS
 - v. Excluding MEDs, LOS, and scheduled outages
- b) Please advise whether it is possible to derive performance on SAIDI from benchmarking only SAIFI and CAIDI.
- c) Toronto Hydro reported its reliability using a sustained outage definition of five minutes, which matches what most of the sample uses as a sustained outage definition (Exhibit 1B / Tab 4 / Schedule 2 / p. 40).
 - i. Please provide the source of information on the definition of a sustained outage.
 - ii. Please provide the number of companies in the sample that define a sustained outage to be five minutes.
 - iii. Please provide the range of sustained outage definitions.
 - iv. Please advise which companies in the sample include LOS.
 - v. Please advise which companies in the sample include planned outages.
 - vi. Please advise whether Toronto Hydro's metrics include LOS.
 - vii. Please advise whether Toronto Hydro's metrics include planned distribution system outages.
- d) Please advise whether the six other Ontario urban distributors included in the total cost benchmarking dataset were included in the reliability benchmarking dataset. Please explain your response.

- e) Please provide detailed regression summary tables similar to Table 6 (Exhibit 1B / Tab 4 / Schedule 2 / p. 37) for the SAIFI and CAIDI regression models summarized in Tables 9 and 10 (Exhibit 1B / Tab 4 / Schedule 2 / p. 43).
- f) PSE included “number of customers” as an explanatory variable in both the SAIFI and CAIDI models. In the SAIFI model, the estimated coefficient for this variable is -0.011 with a *t*-statistic of -1.565; it would be statistically insignificant at a 5% significance level given the number of observations. For the CAIDI model, the estimated coefficient is 0.024 with a *t*-statistic of 5.399, and would be statistically significant at a 5% level (Exhibit 1B / Tab 4 / Schedule 2 / p. 43). Please explain why PSE considers “number of customers” to be a relevant explanatory variable for estimating SAIFI and CAIDI, which are normalized to be on a per customer basis.
- g) In the CAIDI model, PSE includes both “sq. km. per customer” and “% congested urban” as explanatory variables. The “sq. km. per customer” variable has an estimated coefficient of 0.064 and a *t*-statistic of 5.999. The “% congested urban” variable has an estimated coefficient of 6.688 and a *t*-statistic of 2.709. Therefore, both variables are statistically significant at the 5% level (Exhibit 1B / Tab 4 / Schedule 2 / p. 43).

The positive coefficient value for “sq. km. per customer” is expected, as this corresponds with a utility serving a less dense, and probably larger service territory, and a utility may take longer on average to restore customers more geographically remote to operations centres, compared to utilities serving smaller developed communities.

It is less certain what the coefficient of the “% congested urban” variable should be. In addition to shorter travel distances (i.e. shorter times to have teams on site to respond to service interruptions), utilities serving major urban centres and with key industries (e.g., finance), government and other (e.g., hospital, education) sectors served may have invested in and manage infrastructures with increased redundancy and resiliency to avoid or recover from interruptions. At the same time, when interruptions do occur, recovery may take longer as evidenced by some underground vault incidents in Toronto in 2018.

For Toronto Hydro, it has a higher “% congested urban” variable level but a lower sq. km. per customer than is the case for most of the utilities in the benchmark dataset.

- i) Given the diversity of characteristics for the utilities, please explain why PSE considers that the dataset of U.S. utilities is suitable for comparing Toronto Hydro's reliability performance.
 - ii) With specific reference to Toronto Hydro, which of "sq. km. per customer" or "% congested urban" has a bigger impact on the residual difference of actual CAIDI less expected CAIDI.
- f) PSE shows that Toronto Hydro's SAIFI performance has historically been poor and will continue to be poor during the 2020-2024 Custom IR period (Exhibit 1B / Tab 4 / Schedule 2 / p. 45). Please explain why poor SAIFI performance is acceptable.

1B-Staff-38

Ref: Exhibit 1B / Tab 4 / Schedule 2 / pp. 18-19, 41

Preamble:

PSE provided a list of variables in Section 5.2 (which include percent forestation and square kilometres of territory per customer) (Exhibit 1B / Tab 4 / Schedule 2 / p. 41).

PSE noted that, "the reliability dataset is comprised of 74 distributors (this number includes Toronto Hydro)" (Exhibit 1B / Tab 4 / Schedule 2 / p. 41).

Question(s):

- a) Similar to the information provided in Section 2.3.4 (Exhibit 1B / Tab 4 / Schedule 2 / pp. 18-19), please discuss the reason that each variable is included in the model. If a variable only appears in one model, please state why that variable was excluded from the other model.
- b) Please provide the source of the data for square kilometres of territory per customer.
- c) Please discuss the development of the forestation variable from the data sources.
- d) Please advise if weather variables (e.g. precipitation) were considered.

- e) Please advise whether there are groupings of reporting standards used in the U.S. similar enough to merit their own binary variable (similar to the IEEE binary variable).
- f) Please advise whether Toronto Hydro was included in the estimation of the parameters used to benchmark Toronto Hydro. If so, please explain why.

1B-Staff-39

Ref: Exhibit 1B / Tab 4 / Schedule 2 / p. 38

Preamble:

PSE states:

“Toronto Hydro has consistently been below its expected benchmark levels. During the most recent historical period of 2015 to 2017, Toronto Hydro’s costs are 18.6% below the benchmark values. During the CIR period of 2020 to 2024, Toronto Hydro’s costs are 6.0% below the benchmark values on average” (Exhibit 1B / Tab 4 / Schedule 2 / p. 38).

Question(s):

- a) Please provide a 95% confidence interval around the reported -18.6% and -6.0% results for Toronto Hydro. Please explain whether these results for Toronto Hydro are statistically significantly different from zero.

1B-Staff-40

Ref: Exhibit 1B / Tab 4 / Schedule 2 / p. 43

Preamble:

PSE states, “we use an estimator that corrects for cross-sectional heterogeneity and addresses the panel form of the data” (Exhibit 1B / Tab 4 / Schedule 2 / p. 43).

Question(s):

- a) Please describe what estimator is used.
- b) Please advise whether the estimator also corrects for within-panel autocorrelation.

1B-Staff-41

Ref: Exhibit 1B / Tab 4 / Schedule 2 / pp. 15, 26, 50

Preamble:

The benchmarking dataset includes 83 U.S. utilities and 7 Ontario electricity distributors, including Toronto Hydro. PSE states that:

“Ontario distributors were added if a portion of their service territory was classified as “congested urban” (see Section 2.3.4). This added six Ontario distributors to the sample. No other Ontario distributors have been identified as containing “congested urban” service territory.” (Exhibit 1B / Tab 4 / Schedule 2 / p. 15)

The six Ontario electricity distributors, other than Toronto Hydro, in the data set, are:

- Enersource Hydro Mississauga (now part of Alectra Utilities)
- EnWin
- Horizon Utilities (now part of Alectra Utilities)
- Hydro Ottawa
- Kitchener-Wilmot Hydro
- London Hydro

Question(s):

- a) Please explain why PSE considers the sole criterion for inclusion of an Ontario distributor to be a non-zero “congested urban” variable.
- b) Please advise whether PSE considered inclusion of other Canadian utilities, in other provinces, that also serve major urban centres (e.g., Hydro-Québec, BC Hydro, Alberta Utilities). If so, why were these utilities not included? If they were not considered, please explain why not.
- c) In Table 13 (Exhibit 1B / Tab 4 / Schedule 2 / p. 50), 40 of the U.S. utilities show a congested area (sq. km.) value of “0”, which, trivially translates to a “0” value for the urban congestion variable. There are 6 other U.S. utilities for which the small size of the congested urban sq. km. relative to the utility’s total service area translates into a congested urban variable of “0.00%” (rounded to 2 decimal places). In effect, more than half (46 out of 83) of the U.S. utility sample does not meet the criterion use by PSE to decide whether to include or exclude an Ontario distributor.

- i. Please provide PSE's reasons for using different criteria for selecting Canadian or Ontario utilities relative to U.S. utilities.
- ii. Why does PSE consider the sample selected to be reasonable for comparing Toronto Hydro's performance given the differences in selection criteria?

1B-Staff-42

Ref: Exhibit 1B / Tab 4 / Schedule 2

Preamble:

PSE only included six other Ontario distributors based on the criterion that the urban congestion variable is non-zero. There are several GTA utilities (PowerStream (now part of Alectra), Hydro One Brampton Networks (now part of Alectra), Veridian Connections Inc., Oshawa PUC Networks, Burlington Hydro, Oakville Hydro) which have long-established cores (even if the "urban congestion" variable is not satisfied), and have many similarities to Toronto Hydro in terms of socioeconomic characteristics pertaining to population, economic activity, growth, etc.

There are other Ontario utilities, outside of the GTA, which may also display similar characteristics to Toronto in terms of socioeconomic characteristics, maintaining a network in a built-up urban centre established many decades ago in addition to servicing newer expansions. Utilities such as Kingston Hydro, Waterloo North Hydro, Energy+, Guelph Hydro (now part of Alectra), Niagara Peninsula Energy, Peterborough Utilities Commission, Whitby Hydro, Bluewater Power are obvious candidates. Thunder Bay Hydro, PUC Inc. (serving Sault Ste. Marie, ON), North Bay Hydro and Greater Sudbury Hydro may exhibit similarities to a lesser degree, but still have to deal with servicing long-established networks in more dense city centres in addition to serving more recently expanded networks as the communities have grown over time.

Question(s):

- a) Please explain why PSE believes that the six Ontario distributors are adequate to get a balanced and representative comparator data set, along with the 83 U.S. utilities.
- b) In PSE's opinion, would including a number of GTA-area and other Ontario distributors serving cities in Ontario improve the balance of the dataset on which to compare Toronto Hydro's cost performance.

1B-Staff-43

Preamble:

PSE states that its equation includes a new Ontario binary variable:

“The Ontario binary variable measures the estimated cost differences between operating in Ontario versus the U.S. The variable is set equal to “1” if the utility operates in Ontario and “0” if the utility operates in the States. This variable adjusts for regulatory and other differences that may impact distribution costs between the two countries” (Exhibit 1B / Tab 4 / Schedule 2 / p. 20).

The regression results filed in Table 6 (Exhibit 1B / Tab 4 / Schedule 2 / p. 37) show that the Ontario binary variable has a negative coefficient of -0.304 and is statistically significant (t-statistic of -35.592 and a p-value < 1%).

Question(s):

- a) Please explain why PSE considers that the Ontario binary variable is necessary for this updated study.
- b) Please discuss the regulatory differences between Canada (or Ontario) and the United States, which PSE has identified and considers to be reflected in this variable. In what manner do these differences affect the utilities' costs for benchmarking purposes?
- c) Please explain what “other differences” between Canada (or Ontario) and the United States PSE identified, which it considers are reflected in this variable.
- d) Please explain whether there are additional regulatory or “other” differences that would influence the costs of U.S. utilities in different state jurisdictions. If so, why it is not necessary to account for these differences to ensure that the comparison is on an apples-to-apples basis?
- e) Please explain why PSE decided that the Ontario binary variable is the appropriate way of accounting for differences, instead of including quantitative variables that directly reflect the drivers of any material differences.
- f) Please provide PSE's explanation of the statistically significant and negative coefficient for the Ontario binary variable.

1B-Staff-44

Ref: Exhibit 1B / Tab 4 / Schedule 2 / p. 37

Preamble:

Table 6 (Exhibit 1B / Tab 4 / Schedule 2 / p. 37) highlights the regression statistics and estimates for the total cost equation, including the coefficient estimates and associated *t*-statistics.

PSE notes that the equation used a translog functional form, which would account for inclusion of squares and cross-products of some of the variables.

Question(s):

- a) %AMI is the percentage of deployed meters with AMI capabilities. This includes smart meters as deployed to residential and small general service customers in Ontario. The variable %AMI² has an estimated coefficient of -0.029 and is statistically insignificant at a 5% significance level (*t*-statistic = -0.642). Please provide the following:
 - i. The interpretation of the variable %AMI².
 - ii. A discussion of why it is retained in the final model specification as the term is statistically insignificant.
- b) %CU is the percentage of service area that is “congested urban”. %UG is the percentage of distribution plant that is underground. %UGU is the cross-product (%CU × %UG). The equation contains all of these variables and their squares (%CU, %CU², %UG, %UG², %UGU, %UGU²). All of these variables have estimated coefficients which are statistically significant at a 5% significance level except %UG². Please provide the following:
 - i. An explanation as to why %UG² was retained in the final model, given its estimated coefficient of -0.002 and that it is statistically insignificant (*t*-statistic = -0.482).
 - ii. The rationale for including the square of the cross-product %UGU² in the model specification and interpretation of this variable.
- c) More than half of the U.S. utilities in the sample would have a value of “0” for %CU. This would mean that %CU, %CU², %UGU and %UGU² would be “0” for

all of these utilities. Having the same value for these four variables for half of the sample would detract from the ability of the Maximum Likelihood Estimation technique for the regression model. While recognizing that coefficients are statistically significant, indicating that there was adequate signal-to-noise in the values for the variables for other utilities in the sample, please explain what tests PSE performed for multicollinearity in the data. Please provide the results of such tests.

- d) The following table summarizes, from Table 6 (Exhibit 1B / Tab 2 / Schedule 1 / p. 37), the estimated coefficients and associated t-statistics for these variables:

Variable	Estimated Coefficient	t-statistic
%CU	160.845	19.382
%CU ²	-5664.714	-12.751
%UG	-0.077	-4.676
%UG ²	-0.002	-0.482
%UGU	104.843	10.564
%UGU ²	6080.017	7.620

OEB staff interprets that the level of the coefficients for %CU, %CU², %UGU and %UGU² may reflect the fact that the base variables themselves are percentages, and some squares and cross-products of these variables will be even smaller quantitatively. However, it is not intuitive on how to interpret the signs of the majority of these variables, particularly for the squares and cross-products.

- i. Please advise whether PSE had *a priori* assumptions about the coefficient signs for these variables. If so, what were these, and what was the basis for the *a priori* assumptions?
- ii. Please provide PSE's interpretation of the level and signs for each of these variables.

1B-Staff-45

Ref: Exhibit 1B / Tab 4 / Schedule 2 / pp. 31-33, 51-140

Preamble:

PSE set out its new approach to accounting for "urban congestion" and states that its approach was modelled on cities with populations of at least 200,000 (Exhibit 1B / Tab 2 / Schedule 1 / p. 31).

PSE also states that it applied its approach to use GIS mapping data to also define “urban congestion” in cities over 200,000 population served by utilities in the sample (Exhibit 1B / Tab 2 / Schedule 1 / p. 33).

Question(s):

- a) Please confirm that the 200,000 population criterion was also used, in addition to a non-zero “urban congestion” variable to restrict the Ontario sample to six distributors in addition to Toronto Hydro. In other words, were other GTA utilities, and utilities like Waterloo North Hydro, Kingston Hydro, Energy+, also excluded because of having populations less than 200,000.
- b) It is not clear that all U.S. utilities in the sample serve areas containing cities with a population of at least 200,000. Examination of the maps (Exhibit 1B / Tab 2 / Schedule 1 / pp. 51-140) suggest at least some that may not meet this criterion:
 - i. Minnesota Power Inc. (Duluth - 86,066)¹
 - ii. Black Hills Power Inc. (Rapid City, S.D. - 74,421, Belle Fourche - 5,553)²
 - iii. Monongahela Power Co. (Parkersburg - 29,993, Morgantown - 31,585, Clarksburg - 15,865)³
 - iv. Pennsylvania Electric Co. (Erie - 97,369, Altoona - 44,098)⁴

Please identify all U.S. utilities in the sample that do not serve a city with a population of at least 200,000.

- c) Please explain why PSE considers it appropriate to use a different criterion for including (or excluding) Ontario distributors than it uses for the U.S. utilities included in the sample.
- d) Please explain why PSE considers its sample of U.S. and Ontario utilities constitutes a representative sample for benchmarking Toronto Hydro’s costs given the differences in selection criteria and the heterogeneity of the included U.S. utilities.

¹ <http://worldpopulationreview.com/us-cities/duluth-mn-population/>

² https://www.southdakota-demographics.com/cities_by_population

³ <http://worldpopulationreview.com/states/west-virginia-population/cities/>

⁴ https://www.pennsylvania-demographics.com/cities_by_population

- e) In the context of generally consistent data available for all Ontario distributors (i.e., through RRR data filings with the OEB and compiled in Statistical Yearbooks available on the OEB's website) and given the heterogeneity of U.S. utilities, please provide the following:
 - i. A discussion explaining why a sample based on all Ontario electricity distributors (with possible exclusions of Hydro One Networks Inc. and Algoma Power Inc. due to significant rural service territories) combined with the U.S. utility sample would not be a better comparator set for assessing Toronto Hydro's costs. Please advise whether PSE considered such a sample. If not, please explain.

1B-Staff-46

Ref: Exhibit 1B / Tab 4 / Schedule 2 / pp. 18-19, 37

Preamble:

PSE includes a variable %E accounting for the fact that a number of U.S. utilities operate as both electricity and natural gas distributors in their service territories. They also assign a value of 100% to the seven Ontario distributors, including Toronto Hydro, in the data set.

PSE defines %E as follows:

"The percentage of electric customers measures the percentage of electric customers served by a utility out of total gas and electric customers. This variable measures the economies of scope available from serving both electric and gas customers. Billing and other customer-related activities can be shared between the gas and electric divisions when a utility serves its customers with both commodities. The value is set to 100% for Toronto Hydro and the six Ontario distributors, since they do not serve natural gas customers" (Exhibit 1B / Tab 4 / Schedule 2 / pp. 18-19).

In the total cost model, summarized in Table 6 (Exhibit 1B / Tab 4 / Schedule 2 / p. 37), both %E and %E² are included, with the estimated coefficients being both positive and statistically significant.

Question(s):

- a) Please provide PSE's interpretation of the estimated coefficient of 0.407 (t -statistic = 17.433) for %E.

b) Please provide PSE's:

- i) Explanation for the inclusion of %E².
- ii) Interpretation of the significant positive coefficient of %E² (value = 0.348, *t*-statistic = 10.766).

Exhibit 1C – Corporate Information

Corporate Structure and Governance

1C-Staff-47

Ref: Exhibit 1C / Tab 2 / Schedule 1 / pp. 1, 3

Question(s):

- a) Please provide additional information with respect to the work that Toronto Hydro Energy undertakes (Exhibit 1C / Tab 2 / Schedule 1 / p. 1).
- b) Please advise whether Toronto Hydro-Electric System Limited's Board has 4 members with only the chair also acting as a Board Member on Toronto Hydro Corporation's Board (Exhibit 1C / Tab 2 / Schedule 1 / p. 3).

1C-Staff-48

Ref: Exhibit 1C / Tab 2 / Schedule 1 / pp. 7-8

Exhibit 1C / Tab 3 / Schedule 10 / p. 3

Exhibit 1C / Tab 3 / Schedule 3 / Appendix C / p. 5

EB-2005-0421 / Decision with Reasons / p. 42

Preamble:

Toronto Hydro notes that as the sole shareholder of Toronto Hydro Corporation, the City of Toronto has adopted a shareholder direction, which establishes a number of objectives and principles (and includes a dividend policy) (Exhibit 1C / Tab 2 / Schedule 1 / pp. 7-8).

In its 2017 Annual Report, Toronto Hydro Corporation notes that it approved amendments to its dividend policy whereby 60% of Toronto Hydro's immediately previous year's annual consolidated net income will be paid as a dividend to the City of Toronto) (Exhibit 1C / Tab 2 / Schedule 10 / p. 3).

In the OEB's Decision with Reasons for Toronto Hydro's 2006 rates proceeding, the OEB states "...the Board believes that it is appropriate that any dividend paid by the utility to the City of Toronto should be approved by a majority of independent directors" (EB-2005-0421 / Decision with Reasons / p. 42).

Question(s):

- a) Please file the current shareholder direction (including the dividend policy) (Exhibit 1C / Tab 2 / Schedule 1 / p. 8).
- b) Please provide the previous dividend policy that was in place prior to the amendment that was made (discussed at Exhibit 1C / Tab 3 / Schedule 10 / p. 3). Please advise who approved the dividend policy amendment.
- c) Please explain the disconnect between the dividends paid to Toronto Hydro Corporation and the level of dividends that Toronto Hydro Corporation ultimately pays to the City of Toronto (Exhibit 1C / Tab 3 / Schedule 3 / Appendix C / p. 5 and Exhibit 1C / Tab 3 / Schedule 10 / p. 3).
- d) Please provide the dividend checklist used by the Board Members at Toronto Hydro Electric-System Limited (Exhibit 1C / Tab 2 / Schedule 1 / p. 8).
- e) Please advise who at Toronto Hydro Electric-System Limited approves the payment of dividends to Toronto Hydro Corporation (Exhibit 1C / Tab 2 / Schedule 1 / p. 8).
- f) For each year in the 2015-2017 period, please provide the total payment of dividends by Toronto Hydro Electric-System. For each of the same years, please also provide the net income and the total debt.
- g) For each year 2015-2017, please provide the percentage of Toronto Hydro Corporations net income that is derived from Toronto Hydro Electric-System Limited's business.
- h) For 2017, please explain why a \$250 million equity investment from the City of Toronto led to payment of a \$75 million dividend to the City of Toronto (Exhibit 1C / Tab 3 / Schedule 10 / p. 3).

- i) Please provide rationale supporting the amended dividend policy that pre-approves the payment of 60% of Toronto Hydro's immediately previous year's annual consolidated net income as a dividend (Exhibit 1C / Tab 3 / Schedule 10 / p. 3).
- j) Please discuss how the current dividend policy is in accordance with the OEB's Decision with Reasons for Toronto Hydro's 2006 rates proceeding (EB-2005-0421 / Decision with Reasons / p. 42).

Financial Information

1C-Staff-49

Ref: Exhibit 1C / Tab 3 / Schedule 1 / pp. 2-3

Preamble:

Toronto Hydro discusses the implementation of three new International Financial Reporting Standards (IFRS) accounting standards effective January 1, 2018.

Question(s):

- a) In regards to the adoption of IFRS 16 (Exhibit 1C / Tab 3 / Schedule 1 / pp. 2-3), please explain how the regulatory treatment of right of use assets has changed compared to when they were classified as operating leases. Please explain how an operating lease would have been previously recovered in rates compared to how they will be recovered as a result of the accounting change.
- b) Please advise whether the accounting change results in ratepayers paying more for the lease than they otherwise would have under the old accounting policy. Please detail the benefits and drawbacks to ratepayers as a result of the accounting change.
- c) Please discuss whether there is a need to establish a variance account for the 2018-2019 period to capture the impact of operating leases that are still being recovered in rates as part of OM&A in 2018-2019 but have been reclassified to rate base effective January 1, 2018. If Toronto Hydro believes the impact is not material, please explain why that is the case.

1C-Staff-50

Ref: Exhibit 1C / Tab 3 / Schedule 4 / Appendix A-C

Preamble:

Toronto Hydro filed its reconciliations between its Reporting and Recordkeeping Requirement (RRR) filings and audited financial statement for the period 2015-2017.

Question(s):

- a) Please confirm that Toronto Hydro intends to file a similar reconciliation of its December 31, 2018 results as part of its application update.
- b) Please confirm that Toronto Hydro intends to file its December 31, 2018 audited financial statements as part of its application update.

Exhibit 2A – Rate Base

Rate Base and Working Capital Allowance

2A-Staff-51

**Ref: Exhibit 2A / Tab 1 / Schedule 1 / pp. 1-2
Exhibit 1C / Tab 3 / Schedule 3 / Appendix C / Note 6
Exhibit 1C / Tab 3 / Schedule 4
Chapter 2 Appendices / Appendix 2-BA
Exhibit 9 / Tab 1 / Schedule 1 / p. 31**

Question(s):

- a) Please confirm that the \$1.4 million of monthly billing-related assets that are added to rate base for 2020 (Exhibit 2A / Tab 1 / Schedule 1 / p. 2) reflect the depreciated value of the \$3.3 million capital investment in these assets (Exhibit 9 / Tab 1 / Schedule 1 / p. 31).
- b) Please confirm that the variances between closing Property, Plant and Equipment (PP&E) Net Book Value (NBV) in Table 1 (Exhibit 2A / Tab 1 / Schedule 1 / p. 2) and the closing balances in Appendix 2-BA are related to the adjustments for assets held for sale and monthly billing-related assets.
- c) The opening and closing NBV used in 2017 (Exhibit 2A / Tab 1 / Schedule 1 / p. 2 / Table 1) does not reconcile to Note 6 of the December 31, 2017 audited financial statements (Exhibit 1C / Tab 3 / Schedule 3 / Appendix C / Note 6),

even after both the 2016 closing and 2017 closing NBV are adjusted for construction in progress. Please provide a reconciliation between the numbers presented in Table 1 (Exhibit 2A / Tab 1 / Schedule 1 / p. 2 / Table 1) and Note 6 of the 2017 audited financial statements (Exhibit 1C / Tab 3 / Schedule 3 / Appendix C / Note 6). Please update the supporting continuity schedules as necessary.

- d) Please also reconcile the closing 2016 and closing 2017 NBV used in Table 1 (Exhibit 2A / Tab 1 / Schedule 1 / p. 2 / Table 1) to Toronto Hydro's RRR filing for each respective year (Exhibit 1C / Tab 3 / Schedule 4).
- e) If the asset continuity schedules provided in Appendix 2-BA are changed as a result of the above, please update Appendix 2-BA accordingly.

2A-Staff-52

Ref: Exhibit 2A / Tab 1 / Schedule 1 / p. 2
Exhibit 2A / Tab 4 / Schedule 1 / p. 3
Exhibit 1B / Tab 4 / p. 9
Exhibit 4B / Tab 1 / Schedule 1 / pp. 3-4

Preamble:

In calculating rate base, Toronto Hydro takes an average of opening and closing PP&E NBV and adds the working capital allowance (Exhibit 2A / Tab 1 / Schedule 1 / p. 2).

In calculating depreciation expense, Toronto Hydro uses the month in which the asset comes into service (as opposed to the half-year rule). Similarly, Toronto Hydro calculates depreciation associated with assets that are retired or fully depreciated within a given year based on the month of transaction (Exhibit 4B / Tab 1 / Schedule 1 / pp. 3-4).

Question(s):

- a) For the rate base calculation, in terms of capital in-service additions, does Toronto Hydro simply add all of the assets that went into service in a given year to the closing PP&E cost amount, with no adjustments to recognize when (which month) the asset came into service within the year?
- b) For the rate base calculation, in terms of depreciation, does Toronto Hydro: (a) use the depreciation expense calculated based on its monthly approach and add

that amount to the closing accumulated depreciation; and (b) then average opening and closing PP&E NBV?

- c) Please advise whether Toronto Hydro agrees that there is a disconnect between the manner in which it includes capital in-service additions (annual average of annual capital additions) and depreciation expense (annual average of monthly depreciation expense) in the calculation of rate base. Please provide rationale supporting the current approach.
- d) In the context of the manner that Toronto Hydro calculates depreciation expense, it seems that monthly forecast PP&E NBV data is available (Exhibit 4B / Tab 1 / Schedule 1 / pp. 2-3). Please advise whether this is true.
- e) If monthly data is available, please provide Toronto Hydro's position on using the monthly data to calculate its annual rate base amounts for the 2020-2024 period.
- f) Please provide the rate base amounts (including supporting documentation) for the 2020-2024 period that is based on using monthly data for the calculation of both capital additions and depreciation.
- g) Please provide the rate base amounts (including supporting documentation) for the 2020-2024 period that is based on Toronto Hydro's current approach for including capital in-service additions in rate base but instead applying the half-year rule in the calculation of depreciation expense.

2A-Staff-53

**Ref: Exhibit 2A / Tab 3 / Schedule 1 / pp. 2-3
Chapter 2 Appendices / Appendix 2-Z**

Question(s):

- a) Please explain the value shown in Table 1 (Exhibit 2A / Tab 3 / Schedule 1 / pp. 2-3) for 2020 interest on long-term debt.
- b) For the cost of power calculation, please advise whether Toronto Hydro has used the OEB's generic methodology as set out in Appendix 2-Z of the Chapter 2 Appendices. If not, please explain the differences in the methodology and provide rationale supporting Toronto Hydro's approach.

- c) If necessary, please provide a completed Appendix 2-Z and provide an updated working capital allowance that reflects the cost of power amount resulting from Appendix 2-Z.
- d) Please confirm that the assumptions used for the cost of power calculation will be updated to reflect the most up-to-date information available at the time of the draft rate order.

2A-Staff-54

Ref: Exhibit 2A / Tab 4 / Schedule 1 / p. 1

Preamble:

Toronto Hydro makes capital contributions to HONI to complete certain capital work. These contributions are recognized as intangible assets and amortized on a straight-line basis over 25 years.

Question(s):

- a) Please provide rationale supporting this approach and advise whether this approach has been previously approved by the OEB.

2A-Staff-55

**Ref: Exhibit 2A / Tab 4 / Schedule 1 / p. 2
Chapter 2 Appendices / Appendix 2-AA**

Preamble:

Toronto Hydro notes that the AFUDC rate applied under MIFRS is based on the weighted average cost of borrowing.

Question(s):

- a) Please confirm that Toronto Hydro uses its “actual” weighted average cost of borrowing for the historical period and its applied-for weighted average cost of borrowing for the forecast period (Exhibit 2A / Tab 4 / Schedule 1 / p. 2).
- b) Please provide the AFUDC percentages (%) for each year (2015-2024) and the total capital to which the AFUDC is applied. Please reconcile to the total annual AFUDC amounts shown in Appendix 2-AA.

2A-Staff-56

**Ref: Exhibit 2A / Tab 4 / Schedule 1 / p. 4 / Table 1
Exhibit 2B / Section A6 / p. 33.**

Preamble:

Toronto Hydro provided a table highlighting the movement between in-service additions and its CWIP account for the 2015-2020 period.

Question(s):

- a) Please explain the differences in the capital expenditures shown in Table 1 (Exhibit 2A / Tab 4 / Schedule 1 / p. 4) and the capital expenditures shown in Table 7 (Exhibit 2B / Section A6 / p. 33).
- b) Please confirm that the line titled "Deductions (In-Service Additions)" in Table 1 (Exhibit 2A / Tab 4 / Schedule 1 / p. 4) are the in-service additions shown in Appendix 2-BA.

2A-Staff-57

**Ref: Chapter 2 Appendices / Appendix 2-AB
Chapter 2 Appendices / Appendix 2-AA
Exhibit 2B / Section E5.1 / p. 14**

Question(s):

- a) Please file an expanded Appendix 2-AB as follows:
 - i. Includes data for the years 2010-2024
 - ii. Expands system OM&A by sub-category
 - iii. Provides total system OM&A as a percentage (%) of gross and net capital expenditures.
- b) Please explain whether the capital contributions included in Appendix 2-AB are all of the capital contributions that Toronto Hydro received during the 2015-2019 period and forecasts to receive during the 2020-2024 period. Please provide your answer in the context that the capital contributions shown for the customer connection program (Exhibit 2B / Section E5.1 / p. 14) are larger than the total capital contributions shown at Appendix 2-AB in almost every year.

- c) Please explain the terminology “customer contribution” (Exhibit 2B / Section E5.1 / p. 14). Please advise whether this is different from a capital contribution.
- d) Please advise whether for some capital programs Toronto Hydro subtracts the capital contribution (or customer contribution) before showing the total capital expenditure amount (instead of showing it as a gross amount with a separate adjustment for the capital contribution). If so, please explain why and provide a list of all the capital programs where the capital expenditure amount is presented in that manner.
- e) Please explain the variance in capital contributions (as shown in Appendix 2-AB) between 2017 actual and the 2020 test year. Please advise whether there was a change in what is considered a capital contribution for that line item in Appendix 2-AB.

2A-Staff-58

Ref: Chapter 2 Appendices / Appendix 2-D

Question(s):

- a) Please provide an expanded Appendix 2-D that includes information for 2010-2020.

Eligible Renewable Generation Investments

2A-Staff-59

Ref: Exhibit 2A / Tab 6 / Schedule 1 / pp. 4-5

Exhibit 2A / Tab 6 / Schedule 3

Exhibit 2A / Tab 6 / Schedule 5

Preamble:

Toronto Hydro notes that the opening balances in Appendix 2-FB arise from the Renewable Enabling Improvement (REI) investments approved by the OEB in Toronto Hydro’s 2015-2019 Custom IR proceeding. Toronto Hydro notes that the balances reflect the current forecast for these previously approved programs.

Question(s):

- a) Please provide specific page references in the DSP that reconcile to the forecasted REI-related costs shown in Table 1 (Exhibit 2A / Tab 6 / Schedule 1 / pp. 4-5).
- b) Please provide specific references (both evidentiary and in the OEB's decision) to the capital projects that were approved in Toronto Hydro's 2015-2019 Custom IR proceeding.
- c) Please expand Appendix 2-FB (for both the energy storage projects and the generation protection projects) to include a continuity of the revenue requirement calculations beginning when the assets first came into service.
- d) Please reconcile the provincial benefit portion of the REI-eligible assets shown in Appendix 2-FB to Appendix 2-BA (socialized REI line item).

Exhibit 2B – Distribution System Plan and Capital Expenditures

Forecast Capital Expenditures and In-Service Additions

2B-Staff-60

Ref: Exhibit 2B / Section A6 / p. 33
Chapter 2 Appendices / Appendix 2-AA

Preamble:

Toronto Hydro provided the following summary table with respect to its historical and proposed capital expenditures for the 2015-2024 period.

Table 7: Historical (2015 to 2019) and Forecast (2020 to 2024) Expenditures (\$ Millions)

Category	Actuals			Bridge		Forecast				
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<i>System Access</i>	58.3	79.0	65.5	100.8	97.1	91.8	93.3	93.9	106.0	116.4
<i>System Renewal</i>	304.1	266.1	250.3	229.4	253.4	306.6	325.7	323.1	339.0	325.5
<i>System Service</i>	37.9	53.3	72.4	41.4	41.8	34.2	60.1	71.3	33.6	38.5
<i>General Plant</i>	79.4	109.5	98.9	70.0	40.2	78.8	93.7	89.0	77.7	85.2
<i>Other</i>	11.6	3.7	10.7	6.3	2.4	7.0	9.0	9.8	9.5	8.7
Total Capex	491.4	511.6	497.8	447.8	434.9	518.4	581.8	587.1	565.7	574.4
<i>System O&M</i>	116.1	126.5	126.3	126.9	131.0	130.4				

Question(s):

- a) For the forecast period (2020-2024), at the same level of detail as Appendix 2-AB, please provide the proposed capital in-service additions.
- b) For the forecast period (2020-2024), at the capital program level similar to Appendix 2-AA, please provide the following:
 - i. The gross capital expenditures, the associated capital or customer contributions (as appropriate) and the net capital expenditures.
 - ii. The gross capital in-service additions, the associated capital or customer contributions (as appropriate) and the net capital in-service additions.
- c) Please confirm that Toronto Hydro is seeking approval of the capital in-service amounts provided in response to part (a) of this question.
- d) Please advise whether Toronto Hydro would be willing to file with the OEB an annual status update with respect to its capital expenditures and capital in-service additions.
- e) Please advise whether Toronto Hydro expects to update the capital expenditure (and in-service addition) proposals set out in its DSP at the time of its application update to reflect the most recent forecasts of the capital work that will be completed during the 2015-2019 period.

Distribution System Plan Overview

2B-Staff-61

Ref: Exhibit 2B / Section A4.1.3 / p. 16

Preamble:

Toronto Hydro stated:

“Another relevant aspect of economic growth in the City of Toronto is the number of large, third-party infrastructure renewal and expansion projects that require Toronto Hydro to relocate its existing infrastructure. Toronto Hydro is obligated by the *Public Service Works on Highway Act* (“PSWHA”) and section 3.4 of the Distribution System Code (“DSC”) to accommodate these third-party requests in a fair and reasonable manner. For the 2020-2024 period, the utility is expecting greater needs in this area due to a larger number of committed relocation and expansion projects by Metrolinx, the

Toronto Transit Commission, and the City of Toronto.” (Exhibit 2B / Section A4.1.3 / p. 16)

Question(s):

- a) Please advise whether Toronto Hydro had the same expectation in the 2015-2019 DSP and explain whether the expected level of incremental relocation work was required on an actual basis. If not, please explain why Toronto Hydro believes that a greater amount of relocation work will be required over the 2020-2024 period.

2B-Staff-62

Ref: Exhibit 2B / Section A4.4 / pp. 22-23

Preamble:

Toronto Hydro lists the following sources of cost savings resulting from its capital programs: Grid Modernization; Capacity Improvements; Standardization; Area Rebuilds; Conservation First; Safety and Environmental Costs; Enhanced Work Coordination; Facilities Asset Management System; and Procurement (Exhibit 2B / Section A4.4 / pp. 22-23).

Question(s):

- a) Please provide estimated cost savings attributed to each of the above categories and explain how these savings will be monitored over the 2020-2024 period.

Coordinated Planning with Third-Parties

2B-Staff-63

Ref: Exhibit 2B / Section B / Appendix C / p. 34

Question(s):

- a) Please update section 7.1.3 (Recommended Plan and Current Status) (Exhibit 2B / Section B / Appendix C / p. 34) with updated information and explain how the details from the provided update have been incorporated into the proposed DSP.

2B-Staff-64

Ref: Exhibit 2B / Section B / Appendix E / pp. 36-38

Preamble:

The technical assessment of the electricity system serving Central Toronto uncovered a number of system needs to be addressed by actions in the near term and medium term. The near-term needs (0 to 5 years) and the medium-term needs (6 to 10 years), and the options and recommended actions for addressing these needs are summarized in Table 6-1 (Exhibit 2B / Section B / Appendix E / p. 37).

Question(s):

- a) Please provide any updates to Table 6-1 (Exhibit 2B / Section B / Appendix E / p. 37) based on the most recent available information.

Performance Measures

2B-Staff-65

Ref: Exhibit 1B / Tab 2 / Schedule 1 / p. 7
Exhibit 2B / Section C2 / pp. 5-7, 22-23
Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 17

Preamble:

Toronto Hydro provided a list of 15 custom performance measures (incremental to the 29 generic measures) to be reported to the OEB annually. The targets for the metrics are described as either improve or monitor.

Toronto Hydro notes that if the approvals differ from those sought in the application it will need to reassess the forecasted attainable performance related to the custom metrics (Exhibit 2B / Section C2 / pp. 4-5).

Question(s):

- a) Please confirm that Toronto Hydro is seeking approval of the custom performance measures (Exhibit 2B / Section C2 / p. 5).
- b) If the revenue requirement-related approvals differ from those sought in the application, please advise whether Toronto Hydro intends to update the targets for the custom performance measures at the draft rate order stage of the

proceeding (Exhibit 2B / Section C2 / p. 5). Alternatively, please explain whether Toronto Hydro would consider establishing targets with bandwidths to accommodate risks outside the utility's control.

- c) Please advise whether Toronto Hydro considered whether it would be appropriate to apply incentives / penalties for achieving / underperforming relative to the targets (only those targets that are described as improve).
- d) Please provide Toronto Hydro's position on presenting the metrics, which are currently titled "improve", as an actual numerical target as opposed to a directional target. Please discuss for which measures there is an established numerical target (and provide the target). For those where there is no established numerical target, please explain how improvement will be measured and explain why no numerical target can be established.
- e) With respect to the e-billing measure (Exhibit 2B / Section C2 / p. 7), please advise whether the correct understanding is that Toronto Hydro will have succeeded on this measure if it manages to have a total of 347,000 customers on e-billing by 2024.
- f) With respect to the average wood pole replacement cost measure (Exhibit 2B / Section C2 / p. 22), please explain why there is no baseline cost to use for this measure in the context of the information contained in the unit cost benchmarking study (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 17).
- g) With respect to the vegetation management cost per km measure (Exhibit 2B / Section C2 / p. 23), please explain why there is no baseline cost to use for this measure in the context of the information contained in the unit cost benchmarking study (Exhibit 1B / Tab 2 / Schedule 1 / Appendix B / p. 17).

Asset Management Process

2B-Staff-66

Ref: Exhibit 2B / Section D2 / p. 12

Question(s):

- a) Please explain how the amounts included in Table 1 (Exhibit 2B / Section D2 / p. 12) were calculated.

2B-Staff-67

Ref: Exhibit 2B / Section D3 / pp. 4, 11, 13-14, 22-24, 30, 47

Question(s):

- a) Regarding the planned maintenance activities (Exhibit 2B / Section D3 / p. 4), please explain how the cycles (number of years) were established.
- b) Regarding the repair of failed or defective equipment (Exhibit 2B / Section D3 / p. 11), please explain how these costs are treated (capital or OM&A) and provide the total cost of these types of repairs over the 2015-2019 period.
- c) With respect to overhead switches (Exhibit 2B / Section D3 / p. 13), please explain why Toronto Hydro does not have a dedicated proactive renewal strategy for this class of asset.
- d) With respect to overhead conductors (Exhibit 2B / Section D3 / p. 14), please explain why Toronto Hydro does not have a dedicated proactive renewal strategy for this class of asset.
- e) Please explain how asset condition assessment, predictive failure modelling, historical reliability analysis and economic risk-based analysis interact in terms of determining how to direct capital expenditures.
- f) Please advise whether a scope of work document is produced for every project or only for major projects. Please provide a sample scope of work document (Exhibit 2B / Section D3 / p. 47).

2B-Staff-68

Ref: Exhibit 2B / Section D4 / p. 1

Question(s):

- a) Please provide a list of the asset categories that are included in the facilities asset management strategy (Exhibit 2B / Section D4 / p. 1).

UMS Group - Asset Management Review**2B-Staff-69**

Ref: Exhibit 2B / Section D / Appendix A / pp. 6-7

Preamble:

In the Distribution System Plan Asset Management Review, UMS Group states that it did not directly examine Toronto Hydro's asset data and instead relied on interviews regarding the data.

UMS Group also states that Toronto Hydro does not use a standardized method tracking the risk of deferred investments and that asset class level risk registers would assist in ensuring risks beyond reliability are kept within certain tolerances (Exhibit 2B / Section D / Appendix A / pp. 6-7).

Question(s):

- a) Please explain why UMS Group did not take a sampling of Toronto Hydro's asset data to determine whether it is sufficient to support asset management decision-making processes (Exhibit 2B / Section D / Appendix A / p. 6). Please advise whether UMS Group typically would look at the asset data in completing a review of this nature.
- b) Please provide Toronto Hydro's response to the improvements recommended by UMS Group (i.e. standardized method for tracking the risk of deferred investments and risk registers) (Exhibit 2B / Section D / Appendix A / pp. 6-7).

2B-Staff-70

Ref: Exhibit 2B / Section D / Appendix A / pp. 7, 9-11

Preamble:

UMS Group scored Toronto Hydro at an average maturity level of 2.1 across the 11 ISO 55001 domains that were assessed. In total, there are 24 ISO 55001 domains. UMS Group states that it only evaluated Toronto Hydro on 11 of the domains as some are not directly involved in the development of a DSP and Toronto Hydro wanted a more focused evaluation.

UMS Group compared Toronto Hydro's asset management maturity to 14 transmission and distribution utility business units for which UMS Group had previously conducted assessments ((Exhibit 2B / Section D / Appendix A / p. 7).

Question(s):

- a) Please provide the full list of 24 domains and explain why the subset of 11 were selected (Exhibit 2B / Section D / Appendix A / p. 7).
- b) Please confirm that the reason Toronto Hydro was compared to the selected 14 transmission and distribution utility business units was due to UMS Group only completing these types of reviews for 14 other utilities (Exhibit 2B / Section D / Appendix A / p. 11).
- c) Please explain the difference between the “DSP Review Domains” presented in Table III-1 (Exhibit 2B / Section D / Appendix A / p. 9) and the “DSP Domains” shown in column 1 of Table III-2 (Exhibit 2B / Section D / Appendix A / p. 10).
- d) Please explain the following statement: “while these utilities were not specifically selected to represent the industry as a whole... UMS believes that the results are consistent with its qualitative view of asset management maturity across the North American utility industry” (Exhibit 2B / Section D / Appendix A / p. 11). Please advise whether this means that the comparator group is representative of the North American industry.
- e) In its summary of results, UMS Group provided a number of potential improvements (e.g. risk of deferred investments is not assessed beyond reliability). Please provide Toronto Hydro’s plan to respond to these recommendations (Exhibit 2B / Section D / Appendix A / pp. 12-16).
- f) Please further explain why the level of condition assessment used to drive investments varies for different asset classes (Exhibit 2B / Section D / Appendix A / p. 14).

Asset Condition Assessment Methodology

2B-Staff-71

Ref: Exhibit 2B / Section D / Appendix C / p. 9, 11-13,

Question(s):

- a) If available, please provide the future health scores in the same format as Table 3 (Exhibit 2B / Section D / Appendix C / p. 11) under the assumption that the DSP (and associated spending) is approved as filed.

- b) Please provide a list of major asset classes for which health score information is not currently available (Exhibit 2B / Section D / Appendix C / p. 12). Please advise whether Toronto Hydro is working towards gathering the necessary information in order to calculate the health score information for these major asset classes in the future.
- c) Please advise whether Toronto Hydro plans to add new measures, similar to the System Health – Asset Condition (Poles), to its performance measures in the future (Exhibit 2B / Section D / Appendix C / p. 12).
- d) Toronto Hydro notes that it intends to update its useful life values and age-based probability of failure curves in the future (Exhibit 2B / Section D / Appendix C / p. 13). Please advise whether Toronto Hydro is intending to file this information in its next rebasing proceeding.

AECOM – Climate Change Vulnerability Assessment

2B-Staff-72

Ref: Exhibit 2B / Section D / Appendix D

Preamble:

Toronto Hydro has undertaken an in-depth study titled, Climate Change Vulnerability Assessment. The study looked at the vulnerability of Toronto Hydro's system to a changing climate.

Question(s):

- a) Please explain how the capital programs contained in the distribution system plan address the results found in the noted study.

Capital Expenditure Planning Process

2B-Staff-73

**Ref: Exhibit 2B / Section E2 / pp. 6-8, 12
Exhibit 2B / Section A1 / p. 1
Chapter 2 Appendices / Appendix 2-AA**

Preamble:

Toronto Hydro notes that through its iterative planning activities it developed an initial, penultimate and final capital plan.

Question(s):

- a) Please provide a summary table that compares the capital expenditures included in each of the iterations of the capital plan. Please provide the summary table at the same level of detail as Appendix 2-AA (if possible). Please provide rationale supporting all major adjustments between each iteration of the plan.
- b) With respect to changes between the penultimate and final plan, Toronto Hydro noted that it made adjustments to reflect customer support for programs related to preventing network floods and fires (Exhibit 2B / Section E2 / p. 7). Please list all programs in the DSP that address network flood and fire issues. Please provide the dollar amount of the changes made between the penultimate and final plan to address these issues.
- c) With respect to the system renewal category, Toronto Hydro reduced the budget by \$325 million between the initial and penultimate versions of the plan. Between the penultimate and final plans, Toronto Hydro increased system renewal expenditures by \$70 million (Exhibit 2B / Section E2 / pp. 6-7). Please explain how Toronto Hydro expects current levels of system average reliability to be maintained with this overall decrease to expenditures (as between the initial and final plans).
- d) With respect to the system service capital programs, the capital expenditures were reduced by \$110 million between the initial and final plans. The reductions include changes to the scope of work and pacing of system enhancement programs (e.g. SCADA-switch installation in the Horseshoe Region of Toronto) (Exhibit 2B / Section E2 / pp. 6-8). Toronto Hydro noted that “technology and innovation are driving a more dynamic system that is transitioning away from the usual patterns of supply and demand, adding additional complexity and urgency to the challenge of modernizing the grid...” (Exhibit 2B / Section A1 / p. 1). Please explain how this urgency can be accommodated when the projects associated with addressing these issues are being undertaken at a slower pace.
- e) In 2015, Toronto Hydro’s percentage of assets past end of useful life was 26% (with an additional 7% forecasted to reach expected useful life by 2020). Toronto Hydro’s percentage of assets past end of useful life in 2018 is 24% (with an additional 9% expected to reach that point by 2025) (Exhibit 2B / Section E2 / p.

12). Please explain why there has been very little change in the assets past useful life metrics in the context of the significant capital investment made during the 2015-2019 period.

Capability for Renewable Energy and Conventional Generation

2B-Staff-74

Ref: Exhibit 2B / Section E3 / pp. 5-6, 9

Preamble:

Toronto Hydro notes that based on historical trends and the end of the Independent Electricity System Operator's (IESO) Feed-in Tariff (FIT) program in 2018, Toronto Hydro anticipates the pace of REG connections to slow slightly beginning in 2019. However, forecasted REG installations will be larger compared to the past due to cost reductions for solar panels. Between 2019 and 2024, Toronto Hydro forecasts approximately 830 incremental REG connections (totalling 69 MW) to the distribution system (Exhibit 2B / Section E3 / pp. 5-6).

Question(s):

- a) Please provide more detailed evidence supporting Toronto Hydro's REG connection and capacity forecasts for the 2019-2024 period (Exhibit 2B / Section E3 / pp. 5-6).
- b) Please provide further evidence supporting Toronto Hydro's claim that the REG installations will be larger capacity than historically (Exhibit 2B / Section E3 / p. 5).
- c) Please provide a comparison of historical REG unit capacity size and forecasted REG unit capacity size (Exhibit 2B / Section E3 / p. 5).
- d) Please advise whether the forecasted 581 MW of DG is the total forecast for the 2020-2024 period. Alternatively, advise whether this includes forecasts for 2018-2019 (Exhibit 2B / Section E3 / p. 9).

Capital Expenditure Summary - Historical Capital Expenditures and In-Service Additions

2B-Staff-75

Ref: Exhibit 2B / Section E4 / pp. 2-15
Chapter 2 Appendices / Appendix 2-AA
EB-2014-0116 / Decision and Order / pp. 21, 27

Preamble:

Toronto Hydro provided the following summary table with respect to historical capital expenditure variance analysis. The comparison is based on planned vs. actual (as opposed to approved vs. actual) (Exhibit 2B / Section E4 / p. 2).

In its Decision and Order in Toronto Hydro's 2015-2019 rates proceeding, the OEB ordered a 10% reduction to Toronto Hydro's proposed capital expenditures and the application of the stretch factor to the C-factor (EB-2014-0116 / Decision and Order / pp. 21, 27).

Category	Historical									Bridge					
	2015			2016			2017			2018			2019		
	Plan	Act.	Var.	Plan	Act.	Var.	Plan	Act.	Var.	Plan	For.	Var.	Plan	For.	Var.
<i>System Access</i>	86.1	58.3	(32%)	95.3	79.0	(17%)	104.9	65.5	(38%)	95.8	100.8	5%	92.3	97.1	5%
<i>System Renewal</i>	251.7	304.1	21%	239.6	266.1	11%	256.2	250.3	(2%)	275.9	229.4	(17%)	287.3	253.4	(12%)
<i>System Service</i>	76.5	37.9	(50%)	70.7	53.3	(25%)	65.1	72.4	11%	52.6	41.4	(21%)	80.2	41.8	(48%)
<i>General Plant</i>	104.6	79.4	(24%)	101.5	109.5	8%	30.3	98.9	226%	34.2	70.0	105%	30.3	40.2	33%
<i>Other</i>	12.2	11.6	(5%)	11.6	3.7	(68%)	10.8	10.7	(1%)	11.5	6.3	(46%)	12.1	2.4	(80%)
Total CAPEX	531.1	491.4	(7%)	518.8	511.6	(1%)	467.4	497.8	7%	470.0	447.8	(5%)	502.2	434.9	(3%)
<i>System O&M</i>	128.8	116.1	(10%)	126.5			126.3			126.9			131.0		

Question(s):

- a) Please provide variance analysis similar to as shown in Table 1 (Exhibit 2B / Section E4 / p. 2) for each year 2015-2019 as follows:
 - i. Comparing OEB-approved capital expenditures and actual capital expenditures. Please show both variances in gross capital expenditures and net capital expenditures. At a minimum, please provide the comparison at the total capital expenditure level (i.e. not by capital category).

- ii. Comparing OEB-approved capital in-service additions and actual capital in-service additions. Please show both variances in gross capital in-service additions and net capital in-service additions. At a minimum, please provide the comparison at the total capital in-service addition level (i.e. not by capital category)
- b) Please provide variance analysis, at the capital program level similar to Appendix 2-AA, for the years 2015-2019 as follows:
 - i. Comparing planned capital expenditures and actual capital expenditures (with a breakdown of gross capital expenditures, associated capital or customer contributions and net capital expenditures).
 - ii. Comparing planned capital in-service additions and actual capital in-service additions (with a breakdown of gross capital in-service additions, associated capital or customer contributions and net capital in-service additions).
- c) In table format, for all major capital projects (>\$10 million) planned for the 2015-2019 period, please provide:
 - i. the planned capital expenditure amount.
 - ii. the actual capital expenditure amount (or latest forecast capital expenditure amount if not yet completed).
 - iii. the planned capital in-service addition amount by year.
 - iv. the actual capital in-service addition by year (or latest forecast if not yet completed).
- d) With respect to part (c), for any major capital project that experienced a major cost variance or in-service date change, please provide additional supporting discussion.

2B-Staff-76

Ref: Exhibit 2B / Section E4 / pp. 5-6
Exhibit 9 / Tab 1 / Schedule 1 / p. 32

Preamble:

Toronto Hydro notes that there is a \$46.5 million cost variance with respect to the Operating Centre Consolidation Program (OCCP) during the 2015-2019 period.

Toronto Hydro notes that there is an \$18.3 million cost variance with respect to the Information Technology (IT) / Operational Technology (OT) program during the 2015-2019 period (Exhibit 2B / Section E4 / pp. 5-6).

Question(s):

- a) Please provide a detailed breakdown of the cost variance for the OCCP program for the 2015-2019 period (Exhibit 2B / Section E4 / pp. 5-6).
- b) Please provide a breakdown, by property, of net gains from sales that is proposed to be returned to customers as part of the current application. Please advise whether all of these sales are included in the credit balance in the OCCP variance account or if there are property gains from sales that are being disposed separate from the account. Please explain fully.
- c) Please provide a detailed breakdown of the cost variance for the IT/OT program for the 2015-2019 period (Exhibit 2B / Section E4 / p. 6).
- d) With respect to the Enterprise Resource Planning (ERP) system (which forms part of the IT/OT program), please provide a detailed breakdown of the cost overruns related to this project (Exhibit 2B / Section E4 / p. 6).

2B-Staff-77

Ref: Exhibit 2B / Section E4 / pp. 3-4

Question(s):

- a) Toronto Hydro completed a higher amount of overheard system renewal in 2015 and 2016 due to declining reliability in 2013 and 2014. Please explain the reasons for the declining reliability in 2013 and 2014 (Exhibit 2B / Section E4 / p. 3).
- b) Due to the higher forecast spending on system renewal in 2015 and 2016, Toronto Hydro reduced spending in 2017-2019 to remain in alignment with the original 2015-2019 forecast for system renewal capital expenditures (Exhibit 2B / Section E4 / p. 4). Please advise whether this means that Toronto Hydro has

moved spending out of the 2015-2019 period and into the 2020-2024 period. If so, does this mean that Toronto Hydro will not meet its 2015-2019 proposed plan for system renewal.

System Access Investments

2B-Staff-78

Ref: Exhibit 2B / Section E5.1 / pp. 12-13, 16-17

Question(s):

- a) Please provide the forecast from Toronto Hydro's last rebasing proceeding for generation connections and capacity for the 2015-2019 period. Please provide a comparison to the amount of connections and capacity that has been actually placed in-service or is expected to be placed in service in those years (Exhibit 2B / Section E5.1 / pp. 12-13).
- b) Please show the calculation supporting the 46% average capital contribution that has been applied to determine the net customer connection capital expenditures for the 2020-2024 period (Exhibit 2B / Section E5.1 / p. 16).
- c) Please explain why the capital contributions for generation connections were higher in some years than the costs (Exhibit 2B / Section E5.1 / p. 17).

2B-Staff-79

Ref: Exhibit 2B / Section E5.4 / pp. 6, 14, 16-17

Question(s):

- a) Please explain why there are no costs recorded in 2015 and 2016 in Table 5 for large customer and interval metering (Exhibit 2B / Section E5.4 / p. 14). Please provide the response in the context of the 74 and the 186 large user meters installed during 2015 and 2016 respectively (Exhibit 2B / Section E5.4 / p. 6).
- b) Please advise whether in accordance with Toronto Hydro's selected option (Option 2 - replace meters over a 6-year period – 2022-2027), any meters would be replaced prior to their end of useful lives (Exhibit 2B / Section E5.4 / p. 16).

- c) Please provide the total non-adjusted cost of Option 4 (replace meters over a 4-year period (2024-2027)) and advise how much of that capital expenditure would come into service in the 2020-2024 period (Exhibit 2B / Section E5.4 / p. 17).

System Renewal Investments

2B-Staff-80

Ref: Exhibit 2B / Section E6.1 / pp. 21, 25, 27-28

Question(s):

- a) Please provide the total forecast capital expenditures necessary to convert all rear lot served customers (Exhibit 2B / Section E6.1 / p. 21). Please provide the expected final year in which all rear lot configurations will have been converted based on Toronto Hydro's proposal in this proceeding and provide the total number of rear lot configurations expected to be remaining at the end of 2019 and 2024.
- b) Please provide a detailed calculation of the average cost per customer for rear lot conversions (including the inflation, engineering and support costs) (Exhibit 2B / Section E6.1 / p. 21). Please reconcile this amount to the total capital expenditures forecast for this category of spending for 2020-2024 period.
- c) Please provide a detailed calculation of the average cost per customer for box pole construction conversions (including the inflation, engineering and support costs) (Exhibit 2B / Section E6.1 / p. 25). Please reconcile this amount to the total capital expenditures forecast for this category of spending for the 2020-2024 period.
- d) For rear lot conversions, please provide an estimate of the cost of Option 3 (replace rear lot distribution with overhead front lot distribution) for the 2020-2024 period assuming the same amount of conversions were undertaken (Exhibit 2B / Section E6.1 / pp. 27-28).

2B-Staff-81

Ref: Exhibit 2B / Section E6.2 / pp. 2, 22, 26, 28, 31-32

Question(s):

- a) Toronto Hydro plans to prioritize the replacement of underground transformers that are at risk of failure, which are known to, or at a risk of, containing PCB-contaminated oil (Exhibit 2B / Section E6.1 / p. 2). Please explain how Toronto Hydro will know when all PCB-contaminated equipment has been eliminated as there is no accurate database of this inventory (in the context of Toronto Hydro's statement that it will prioritize replacement of underground transformers that are at risk of containing PCB-contaminated oil).
- b) Please reconcile the statement that 723 switches are at or beyond their useful life as of 2017 (Exhibit 2B / Section E6.2 / p. 26) with the information in Table 8 (Exhibit 2B / Section E6.2 / p. 22).
- c) Toronto Hydro states that its 2020-2024 underground circuit renewal budget is based on historical unit cost trends (Exhibit 2B / Section E6.2 / p. 28). Please provide the historical and forecast unit costs for underground cable, transformers and switches. Please show how historical costs have influenced the forecast capital budget.
- d) Please provide the total cost of Option 1 (spot replacement of transformers in deteriorated condition at or beyond their useful life) and Option 2 (area rebuilds) for the 2020-2024 period (Exhibit 2B / Section E6.2 / pp. 31-32). Please compare to the total cost of the selected option for the same period.

2B-Staff-82

Ref: Exhibit 2B / Section E6.3 / pp. 2-3, 29

Preamble:

Toronto Hydro plans to replace 2% of existing paper-insulated lead covered (PILC) cable, 20% of asbestos-insulated lead (AIRC) covered cable, and an estimated 15 chamber rebuilds, 24 chamber roof rebuilds and 3 chamber abandonments each year during the 2020-2024 period (Exhibit 2B / Section E6.3 / pp. 2-3).

Question(s):

- a) Please explain why the proposed volume of replacement was selected (i.e. 2% of PILC cable, 20% of AIRC, and the proposed amount chamber rebuilds) (Exhibit 2B / Section E6.3 / pp. 2-3). Please also explain how Toronto Hydro will determine what sections of cable and which chambers to address first.

- b) Please provide the historical costs per circuit km (2015-2017) for PILC cable and AILC cable replacement that support the forecast costs (2020-2024) (Exhibit 2B / Section E6.3 / p. 29). Please explain any major variances in costs per circuit km.

2B-Staff-83

Ref: Exhibit 2B / Section E6.4 / pp. 23, 25-26

Question(s):

- a) Please provide the historical (2015-2017) and forecast (2020-2024) costs per unit for automatic transfer switches (ATS) and reverse power breakers (RPB) replacements (Exhibit 2B / Section E6.4 / p. 23). Please explain any major variances in per-unit costs.
- b) With respect to network vault renewal, please provide the historical (2015-2017) and forecast (2020-2024) unit costs (Exhibit 2B / Section E6.4 / pp. 25-26). Please explain any major variances in per-unit costs.

2B-Staff-84

Ref: Exhibit 2B / Section E6.5 / pp. 17-18

Question(s):

- a) Toronto Hydro states that it will have spent almost 25% more on overhead system renewal during the 2015-2019 period than planned (Exhibit 2B / Section E6.5 / p. 17) due to increased work volume. Please provide a comparison of the 2015-2019 planned number of overhead unit replacements and actual (or most recent forecast) number of overhead unit replacements in the same format as Table 7 (Exhibit 2B / Section E6.5 / p. 18).
- c) Toronto Hydro states that its 2020-2024 forecast capital expenditures related to overhead system renewal is based on the historical unit cost trends (Exhibit 2B / Section E6.5 / p. 18). Please provide the historical and forecast unit costs for poles, transformers, overhead switches and conductors (per km). Please show how historical costs have influenced the forecast capital budget.

2B-Staff-85

Ref: Exhibit 2B / Section E6.6 / pp. 44, 60

Preamble:

Toronto Hydro states that spending in the stations renewal program is expected to be less than planned during the 2015-2019 period due to changes in its execution plan. Due to the challenges and delays experienced during the 2015-2019 period, there is a back-log of high priority station projects that need to be completed urgently.

Question(s):

- a) Please provide a variance analysis between historical planned and actual (or most recent forecast) for the 2015-2019 period with respect to the number of units replaced for all sub-categories of spending (e.g. TS switchgear, TS outdoor breakers, MS switchgear, etc.) in the stations renewal program. In the same table, provide the variance between historical planned and actual (or most recent forecast) capital expenditures (\$) for those same sub-categories of spending.
- b) Please provide, at the same level of detail as Table 25 (Exhibit 2B / Section E6.6 / p. 44), the amount of capital expenditures that has been moved from the 2015-2019 period to the 2020-2024 period. Of the total \$141.5 million in stations renewal spending for 2020-2024, what percentage is related to capital spending that was originally planned for the 2015-2019 period.
- c) Please explain how the unit costs for the DACSCAN remote terminal units (RTUs) and MOSCAD RTUs were calculated (Exhibit 2B / Section E6.6 / p. 60).

2B-Staff-86

Ref: Exhibit 2B / Section E6.7 / pp. 1, 10

Question(s):

- a) Please list the projects in the reactive and correction capital program that overlap with proactive capital programs. Please explain where the line is drawn as between reactive and proactive capital work.
- b) Please further explain the statement that consistent with the 2015-2019 reactive and corrective capital program, the 2020-2024 program includes allowances for streetlight reactive pole replacement, reactive streetlight replacement and streetlight spot improvements (Exhibit 2B / Section E6.7 / p. 1). Please explain what streetlight assets are being referred to and why they form part of rate base.

- c) Toronto Hydro estimated the volumes of forecast (2020-2024) meter replacements based on historic failure rates (Exhibit 2B / Section E6.7 / p. 10). Please provide the historical failures rates and explain how those failure rates support the 2020-2024 forecast.

System Service Investments

2B-Staff-87

Ref: Exhibit 2B / Section E7.2 / p. 1
Exhibit 2A / Tab 6 / Schedule 5

Preamble:

For the energy storage systems (ESS) program, Toronto Hydro provides forecast (2020-2024) rate base of \$5.8 million, net costs of \$10.5 million, and gross costs of \$52.8 million (Exhibit 2B / Section E7.2 / p. 1).

Question(s):

- a) Please advise whether the difference between gross costs and net costs is the forecast capital contributions. If not, please explain.
- b) Please advise whether the difference between net costs and rate base is the amount that will be recovered through the provincial benefit program. If not, please explain.
- c) Please provide the capital expenditures related to each of the three sub-categories of the energy storage system program (grid performance ESS, renewable enabling ESS, and customer-specific ESS) in terms of their contribution towards each of rate base, net costs and gross costs.
- d) Please advise whether there are any OM&A costs (both upfront and ongoing) related to any of the three categories of ESS. If not, please explain. If yes, please provide the amount by category and for each category explain how the OM&A costs are proposed to be recovered (e.g. through the proposed OM&A budget, directly from customers, etc.). Specifically, please explain why there do not seem to be any OM&A costs proposed to be recovered through the provincial benefit program.

2B-Staff-88

Preamble:

Toronto Hydro proposed three categories of ESS investments: (a) grid performance; (b) renewable enabling investments; and (c) customer-specific ESS (Exhibit 2B / Section E7.2 / p. 2).

For ESS, Toronto Hydro stated that one of the benefits would be the deferral of conventional infrastructure investments (Exhibit 2B / Section E7.2 / pp. 17, 29).

Toronto Hydro notes “ESS is not always the most economic REI option” and has planned wires solutions in most instances as a result (Exhibit 2B / Section E7.2 / p. 25).

Question(s):

- a) Please explain how Toronto Hydro determines the value of deferred capital investment for the purpose of comparing the costs and benefits of its investment options.
- b) Please provide a table showing the amounts of deferred capital investment as a result of the ESS projects by category and project.
- c) Please provide a table showing the expected timeframe for each deferred investment (i.e. the estimated amount of time until the deferred investment must be made).
- d) Please indicate the difference in the estimated costs of the conventional infrastructure investments if those investments were made now versus if they are made later on (having deferred the need for investment with the proposed storage projects).
- e) Please indicate whether any results from Toronto Hydro’s existing storage projects were used to estimate the costs and benefits of the storage projects proposed in this application. If yes, please summarize.
- f) Given that energy storage is not always the most economic option, please elaborate on how Toronto Hydro determined that energy storage was appropriate in some instances but not other instances, where different forms of grid performance or REI investments are proposed.

- g) Please explain the basis for the estimates of the cost of ESS, which appear to be CAD\$526 per kWh for deployments in 2018 through 2024, and reconcile with the statement that ESS costs “continue to decline...from US\$300 per kWh in 2015 to an expected US\$110/kWh in 2024” (Exhibit 2B / Section E7.2 / p. 38).

2B-Staff-89

Ref: Exhibit 2B / Section E7.2 / pp. 17-28

Exhibit 2A / Tab 6 / Schedule 1 / pp. 1-5

Ontario Energy Board Act, Section 79.1(1)

Filing Requirements for Electricity Distribution Rate Applications / Chapter 2 / Section 2.2.2.7 / pp. 20-21

Preamble:

Toronto Hydro proposes to use energy storage to enable connection of renewable generation.

Toronto Hydro states that about 830 additional renewable energy generation connections, totaling 69MW, will be connected to its distribution system between 2019 and 2024. Toronto Hydro anticipates that the pace of these connections will slow with the end of the FIT program, however, the unit size may be larger due to cost reductions in solar photovoltaic panels and net metering benefits (Exhibit 2B / Section E7.2 / pp. 17-18).

The table below summarizes the costs associated with Toronto Hydro’s planned REI investments over the 2020 to 2024 period (Exhibit 2A / Tab 6 / Schedule 1 / p. 4).

Table 1: Renewable Enabling Improvements (“REI”) from 2020-2024 (\$ Millions)

Capital Program	2020	2021	2022	2023	2024	Total
Generation, Protection, Monitoring, and Control	3.7	2.3	2.4	2.5	2.7	8.6
Energy Storage	1.0	1.0	1.0	1.0	1.0	5.0
Totals	4.7	3.3	3.4	3.5	3.7	13.6

Toronto Hydro stated that it applied the 6% direct benefit, provided by the OEB, to calculate the provincial rate protection amounts (Exhibit 2A / Tab 6 / Schedule 1 / p. 5).

Toronto Hydro notes that renewable enabling ESS can be installed anywhere on a feeder and to avoid additional costs these units will be connected to existing Toronto Hydro assets. However, where such assets or locations are unavailable, Toronto Hydro will install new assets to accommodate the proposed ESS (Exhibit 2B / Section E7.2 / p. 26).

Question(s):

- a) Please explain why no REI investment occurred in 2015, 2016 and 2017 (Exhibit 2B / Section E7.2 / p. 23 / Table 13).
- b) Please explain how Toronto Hydro's REI investment plan will change if forecasted renewable generation connections do not materialize.
- c) Please explain how Toronto Hydro determined that, of the total \$13.6M in renewable enabling investments, \$5M should be spent on energy storage projects and \$8.6M should be spent on conventional investments. Please discuss with reference to the materiality provision that newly applies to REI funding as a result of the change to section 79.1(1) of the OEB Act.
- d) The OEB's Chapter 2 Filing Requirements note that "distributors will continue to have the option to undertake a more rigorous "detailed" direct benefit assessment based on the criteria set out in the Direct Benefits Report where the distributor believes the standard percentages will not be reflective of the direct benefits of its project(s)" (Chapter 2 Filing Requirements / Section 2.2.2.7 / pp. 20-21). Given energy storage can provide additional system benefits, please explain why recovering 94% of the renewable enabling ESS project costs from provincial ratepayers is still appropriate. Please advise whether Toronto Hydro studied if any additional benefits associated with these storage assets would accrue to Toronto Hydro's customers. If not, please explain.
- e) Please explain the rationale for installing new assets to support renewable enabling ESS when feeders other than those targeted could be used. Please describe the cost consequences of doing so for the project (Exhibit 2B / Section E7.2 / p. 26).

2B-Staff-90

Ref: Exhibit 2B / Section E7.2 / pp. 29-42
Exhibit 2B / Section E7.2 / p. 32
Exhibit 2A / Tab 4 / Schedule 1 / p. 2

**EB-2011-0004 / Report of the Board: Supplemental Report on Smart Grid
Affiliate Relationships Code for Electricity Distributors and Transmitters**

Preamble:

Toronto Hydro noted that customer reliability needs can be met regardless of whether the ESS is located “in front of the meter” or “behind the meter” and that the physics of ESS confers distribution service benefits to the customer in either scenario. Toronto Hydro further noted that if reliability were the only customer need that Toronto Hydro needed to address, the distribution asset would typically be located in front of the meter. However, to meet the customer’s financial need, Toronto Hydro has to site the ESS behind the meter to achieve peak-shaving (Exhibit 2B / Section E7.2 / p. 32).

Toronto Hydro confirmed that no non-distribution activities are included in its proposed capital plan (Exhibit 2A / Tab 4 / Schedule 1 / p. 2).

The OEB reaffirmed that the provision of behind the meter services and applications that fall within the parameters set out in sections 71(2) or 72(3) of the OEB Act is a non-utility activity (EB-2011-0004 / Report of the Board – Supplemental Report on Smart Grid / p. 5). In accordance with the OEB’s policies related to activities under those sections, such activities must be accounted for separately from utility activities and be undertaken on a full cost recovery basis (i.e. not recovered in rates).

The Affiliate Relationships Code for Electricity Distributors and Transmitters sets out requirements to prevent a utility from cross-subsidizing affiliate activities and prevent a utility from acting in a manner that provides an unfair business advantage to an affiliate that is an energy service provider.

Question(s):

- a) Please confirm Toronto Hydro’s intention to own behind the meter storage units as distribution assets.
- b) In light of the OEB’s determination on behind the meter activities (EB-2011-0004 / Report of the Board – Supplemental Report on Smart Grid / p. 5), and Toronto Hydro’s statement that no non-distribution activities are included in its proposed capital plan (Exhibit 2A / Tab 4 / Schedule 1 / p. 2), please explain why Toronto Hydro believes providing behind the meter ESS services is a distribution activity.

- c) Please explain why Toronto Hydro is not delivering these services through an affiliate given that it is a competitive activity.
- d) Please advise whether the customers that are being provided behind the meter ESS are aware that this is not a distribution service and, therefore, they are not required to procure this service from Toronto Hydro.
- e) Please provide a breakdown of the cost estimates in Table 19 (Exhibit 2B / Section 7.2 / p. 32) assuming this service were provided through an affiliate instead as part of the regulated distribution business. The breakdown should include Toronto Hydro's fully-allocated cost to provide services to the affiliate, as well as the estimated fair market value for the service provided by the affiliate to Toronto Hydro, as contemplated in section 2.3 of the Affiliate Relationships Code.

2B-Staff-91

Ref: Exhibit 2B / Section E7.2 / pp. 31-32

Toronto Hydro stated alternatives that entail individualized customer benefits result in costs that would be outside of the utility's distribution system investment in the normal course. In accordance with the beneficiary pays principle, these costs are fully allocated to the customer who benefits through a capital contribution (Exhibit 2B / Section 7.2 / p. 31).

The table below shows the historical and forecast cost of the Customer-specific ESS (Exhibit 2B / Section 7.2 / p. 32).

Table 19: Bridge & Forecast Customer-Specific ESS (\$ Millions)

	Bridge		Forecast					Total
	2018	2019	2020	2021	2022	2023	2024	
<i>Metrolinx ECLRT</i>	9.6	17.7						27.3
<i>Metrolinx FWLRT</i>			6.0	10.0				16.0
<i>TTC Arrow Garage</i>			12.3					12.3
<i>Metrolinx Willowbrook Yard</i>			6.0	2.1	5.9			14.0
Total	9.6	17.7	24.3	12.1	5.9	0.0	0.0	69.6

Question(s):

- a) Please advise whether capital expenditures associated with the Metrolinx ECLRT (\$27.3 million in 2018 and 2019) were previously approved by the OEB in Toronto Hydro's 2015-2019 Custom IR proceeding. If not, please explain why Toronto Hydro believes that it was appropriate to undertake this project in the absence of OEB approval.
- b) Please provide updated year-to-date expenditures for the Metrolinx ECLRT ESS project.
- c) Please provide the amount of the capital contribution received from Metrolinx to date for this project.
- d) Please elaborate on Toronto Hydro's accounting process for any potential over- or under-spending on any of the ESS projects with respect to the payment of capital contributions.

2B-Staff-92

Ref: Exhibit 2B / Section E7.2 / pp. 7, 8, 13, 16

Preamble:

Toronto Hydro proposes to install grid performance ESS on feeders with "key account customers" who have made it clear that increased power quality and reliability is a high priority to them. One of the screening factors Toronto Hydro proposes to use for prioritizing suitable sites for these assets is "benefits to other area customers" (Exhibit 2B / Section E7.2 / p. 13).

Toronto Hydro notes that some customer-specific ESS projects may be reclassified as grid performance ESS (Exhibit 2B / Section E7.2 / p. 16).

Question(s):

- a) In the context that a large proportion of benefits associated with the grid performance ESS will accrue to "key account customers", please explain why Toronto Hydro has not proposed to recover a commensurate proportion of costs associated with this project from these customers.
- b) Please advise whether these "key account customers" have expressed a need for higher-than-average power quality or are these customers currently

experiencing power quality lower than that which Toronto Hydro provides on average.

- c) Please describe the criteria Toronto Hydro uses to classify grid performance ESS projects and customer-specific ESS projects. Please describe the reasons a project may be reclassified from one category to the other.

2B-Staff-93

Ref: Exhibit 2B / Section E7.4 / p. 1

Preamble:

The stations expansions program is a continuation of the expansion activities described in Toronto Hydro's 2015-2019 DSP.

Question(s):

- a) Please provide a list of the work that was described in Toronto Hydro's 2015-2019 DSP (including the dollar value) that will be completed during the 2020 – 2024 period.

2B-Staff-94

Ref: Exhibit 2B / Section E7.4 / pp. 10, 16

Preamble:

Toronto Hydro states that “upgrading these transformers in tandem with Hydro One’s renewal and sustainment plans would alleviate capacity constraints on the system and result in avoided costs of up to \$20 million (as shown in Table 12) thus reducing the burden on ratepayers” (Exhibit 2B / Section E7.4 / p. 16)

Question(s):

- a) Please advise whether capital contributions made to Hydro One are trued-up to the final cost of the project (Exhibit 2B / Section E7.4 / p. 10). If so, please explain the true-up process and how it affects rate base.
- b) Please confirm that the avoided costs referenced reflect costs avoided in Toronto Hydro’s rate base but instead would be included in Hydro One’s rate base (and the associated revenue requirement will be recovered from all ratepayers in

Ontario through the Uniform Transmission Rates (UTRs)) (Exhibit 2B / Section E7.4 / p. 16).

2B-Staff-95

Ref: Exhibit 2B / Section E7.4 / pp. 22-23, 25

Question(s):

- a) Please advise whether the Copeland TS – Phase 1 project is now completed and the assets are in-service. If not, please provide the most recent forecast in-service date (Exhibit 2B / Section E7.4 / pp. 22-23).
- b) Please provide a more detailed explanation of the events and factors (adverse weather, challenging site conditions, logistical challenges, contractor performance, etc.) that resulted in schedule and spending delays on the Copeland TS – Phase 1 project. Specifically, discuss the impact that contractor performance had on the overall budget (Exhibit 2B / Section E7.4 / pp. 22-23).
- c) Please explain the statement “... the overall Copeland TS – Phase 1 budget from project inception to project completion in 2018 has not materially changed.” Please provide the response in the context that the station is projected to cost \$15.1 million more than the cost forecasted in the 2015-2019 rates proceeding (Exhibit 2B / Section E7.4 / p. 23).
- d) Toronto Hydro states that the Copeland TS – Phase 2 project is expected to be completed by late 2023 or early 2024 (Exhibit 2B / Section E7.4 / p. 23). Please provide the forecast in-service date for the Copeland TS – Phase 2 project that was used for rate base calculation purposes.
- e) Toronto Hydro states that it intends to update the Copeland TS – Phase 2 project budget in late 2018 or early 2019 (Exhibit 2B / Section E7.4 / p. 23). Please advise whether Toronto Hydro intends to update its rate base forecast (used in the C-factor calculation) to reflect the updated budget for the project.
- f) Please provide breakdown between labour and material costs for the Copeland TS – Phase 2 project (Exhibit 2B / Section E7.4 / p. 25).

General Plant Investments

2B-Staff-96

Ref: Exhibit 2B / Section E8.1 / pp. 12, 17-18, 25

Question(s):

- i. Please advise whether the dual control centre will have greater functionality than its existing primary control centre. If so, please provide the costs associated with the incremental functionality (Exhibit 2B / Section E8.1 / p. 12).
- ii. Please advise whether it its Toronto Hydro's intent to eventually make the new dual control centre its primary control centre (Exhibit 2B / Section E8.1 / p. 12).
- iii. Please explain in more detail how a dual control centre protects against cyber threats (Exhibit 2B / Section E8.1 / p. 17).
- iv. Please confirm that the dual control centre is forecast to come into service in 2022 (Exhibit 2B / Section E8.1 / p. 18)
- v. Please confirm that the \$40.2 million budget for the dual control centre reflects the entire capital investment for the project (including all IT systems) (Exhibit 2B / Section E8.1 / p. 18).
- vi. Please provide the total annual impact that the dual control centre will have on OM&A costs (e.g. incremental Full Time Equivalents (FTEs), incremental maintenance, etc.) (Exhibit 2B / Section E8.1 / p. 18).
- vii. Please provide the total cost of Option 4 (Exhibit 2B / Section E8.1 / p. 25).

2B-Staff-97

Ref: Exhibit 2B / Section E8.2 / pp. 8, 11, 12-13, 19

Question(s):

- a) Please explain how Toronto Hydro will ensure that the work completed in the facilities management and security program is efficiently coordinated with its other capital programs. Please provide specific examples of how the work will be coordinated.
- b) Please provide the total 2020-2024 capital expenditure for renovating the trades training area at 500 Commissioners Work Centre (Exhibit 2B / Section E8.2 / p. 8).

- c) Please provide the total 2020-2024 capital expenditure for superstructure and concrete repairs at 500 Commissioners Work Centre (Exhibit 2B / Section E8.2 / p. 8).
- d) Please provide the total 2020-2024 capital expenditure for replacement of HVAC systems at 500 Commissioners and the associated OM&A cost reduction (resulting from lower electricity use) (Exhibit 2B / Section E8.2 / p. 11).
- e) Please provide the 2020-2024 total capital expenditure for sump pump replacement at six stations (Exhibit 2B / Section E8.2 / pp. 12-13).
- f) With respect to the security improvements-related capital expenditures, please provide the amount that is directly related to addressing cyber security threats (Exhibit 2B / Section E8.2 / p. 19).

2B-Staff-98

Ref: Exhibit 2B / Section E8.3 / pp. 8, 11

Preamble:

Toronto Hydro proposes to spend \$42.5 million during the 2020-2024 period compared to the \$19.1 million spent in the 2015-2019 period for the fleet and equipment services capital program. Toronto Hydro explains that this is due to requiring the replacement of a larger number of heavy duty vehicles, due to their age and condition (Exhibit 2B / Section E8.3 / pp. 8, 11).

Question(s):

- a) Please explain why, if historical replacements of both light and heavy vehicles were paced appropriately, there is such a large increase in the capital expenditures for this program in the 2020-2024 period.

2B-Staff-99

Ref: Exhibit 2B / Section E8.4 / pp. 14, 16, 18, 21-22

Question(s):

- a) Please provide the amount of the total IT capital budget that is directly related to addressing cyber-security threats (Exhibit 2B / Section E8.4 / p. 14).

- b) Please provide unit cost analysis comparing historical (2015-2019) to forecast (2020-2024) for the IT hardware categories listed in Table 6 (Exhibit 2B / Section E8.4 / p. 16).
- c) Please provide variance analysis between planned and actual capital expenditures for the IT systems / software upgrades listed in Table 7 (Exhibit 2B / Section E8.4 / p. 18), Table 8 (Exhibit 2B / Section E8.4 / p. 21), Table 9 (Exhibit 2B / Section E8.4 / p. 21), Table 10 (Exhibit 2B / Section E8.4 / p. 22).

Gartner – IT Budget Assessment Report

2B-Staff-100

Ref: Exhibit 2B / Section E8.4 / Appendix A / pp. 8, 13, 27, 30

Question(s):

- a) Please explain the revenue and operational expense amounts presented for 2017 and 2020 used in the benchmarking analysis (Exhibit 2B / Section E8.4 / Appendix A / p. 8). If it includes the electricity commodity costs and revenues, please explain why those amounts would be included.
- b) Please explain why Toronto Hydro's 2017 and 2020 hardware costs are significantly higher than the peer group and its software costs are significantly lower than the peer group (Exhibit 2B / Section E8.4 / Appendix A / pp. 13, 27).
- c) Please explain why Toronto Hydro's 2020 IT budget is more capital intensive than the peer group (Exhibit 2B / Section E8.4 / Appendix A / p. 30).

Exhibit 3 – Operating Revenue

Load Forecast

3-Staff-101

**Ref: Exhibit 3 / Tab 1 / Schedule 1 / pp. 1, 5
Exhibit 2B / Section E5.1 / p. 4**

Preamble:

Toronto Hydro's load forecast shows declining load and increasing customer count for 2020 relative to the historic period.

Toronto Hydro's DSP makes many references to the need for capital investments to address population growth in the City of Toronto.

Question(s):

- a) Please provide a high-level discussion that reconciles the divergent proposals in the application (i.e. the load forecast for 2020 is reduced relative to the historic period, the customer count is growing slowly, while significant capital expenditures are required to address population growth in the City of Toronto).
- b) Please advise whether Toronto Hydro intends to update its load forecast to reflect the inclusion of actual load up to December 2018 (as opposed to December 2017) in its regression model once that information becomes available (Exhibit 3 / Tab 1 / Schedule 1 / p. 5).

3-Staff-102

Ref: Exhibit 3 / Tab 1 / Schedule 1 / pp. 7, 10

Preamble:

Toronto Hydro states the following:

"The time trend variables used in the models are intended to capture trends which are not otherwise explained by the other driver variables. The Residential model uses a simple time trend variable which captures an increase in downward trend in consumption over the historical period from 2008 onward. The model is based on consumption with approved CDM loads "added back" to loads. Approved CDM activities alone do not account for additional natural conservation which seems most apparent in 2008 and onward. The GS<50 kW and GS 50-999 kW models use simple time trends over historical 2002 to 2017 in order to help account for trending that other driver variables and CDM adjustments do not fully speak to, as well as to improve overall model fit over the period" (Exhibit 3 / Tab 1 / Schedule 1 / p. 7).

Question(s):

- a) Please explain what drivers Toronto Hydro believes the time trend variable accounts for in the GS < 50 kW and GS 50-999 kW models (Exhibit 3 / Tab 1 / Schedule 1 / p. 7).
- b) Please advise whether the simple binary trend variable (2008-onwards) in the residential model is solely designed to capture CDM impacts or are there other drivers that Toronto Hydro believes are accounted for by this trend variable. Please explain the response (Exhibit 3 / Tab 1 / Schedule 1 / p. 7).
- c) Please describe what other variables Toronto Hydro attempted to use to in the various class-specific models and explain why these variables were rejected. If Toronto Hydro did not try to account for other factors, please provide an explanation (Exhibit 3 / Tab 1 / Schedule 1 / p. 7).
- d) If “approved CDM” was not added back to historical actuals but instead was used as an explanatory variable, the coefficient of the CDM variable, which could be different from 1 (one), could be informative about gross CDM impacts (natural and approved CDM, net of decay, “free riders”, etc.) (Exhibit 3 / Tab 1 / Schedule 1 / p. 7). Please advise whether Toronto Hydro tested the approach whereby approved CDM was used as an explanatory variable, If so, what were the results. If not, please explain.
- e) Please provide a high-level estimate of the potential magnitude of electric vehicles and distributed generation on Toronto Hydro’s load forecast for the 2020-2024 period (and in the longer term) (Exhibit 3 / Tab 1 / Schedule 1 / p. 11).

3-Staff-103

Ref: Exhibit 3 / Tab 1 / Schedule 1 / pp. 4-10

Question(s):

- a) Toronto Hydro discusses various variables, including a variable for Toronto unemployment (Exhibit 3 / Tab 1 / Schedule 1 / p. 6). However, in summary Table 3 (Exhibit 3 / Tab 1 / Schedule 1 / p. 10), there is no listing of an unemployment variable for any of the class-specific models. Please indicate where and how the unemployment rate was used in developing the customer or load forecast.
- b) Toronto Hydro states, “the forecast of the City of Toronto’s unemployment rate and population was derived based on the Conference Board of Canada forecast

of the Toronto Census Metropolitan Area (“CMA”) unemployment rate and population using a pair regression model” (Exhibit 3 / Tab 1 / Schedule 1 / p. 9).

- i. Please explain what Toronto Hydro means by a “pair regression model”.
- ii. Please provide the regression model, model statistics and results, or indicate where these are in the evidence.

3-Staff-104

Ref: Exhibit 3 / Tab 1 / Schedule 1 / Appendix A-2

Preamble:

In Appendix A-2, Toronto Hydro provides the regression model summary statistics for the six class regression models.

The Durbin-Watson statistics for these models are shown in the following table:

Model	Durbin-Watson Statistic	Number of Observations	Number of Variables	5% one-tailed Level	p-value for Null Hypothesis (no autocorrelation)
Residential	1.23	186	6	1.70519	<5%
CSMUR	1.33	56	5	1.38152	<5%
GS < 50 kW	1.13	186	9	1.67124	<5%
GS 50-999 kW	1.38	186	9	1.67124	<5%
GS 1000-4999 kW	1.04	186	9	1.67124	<5%
Large User	1.24	186	9	1.67124	<5%

The Durbin-Watson statistic is standard statistical test for autocorrelation between the residuals. In the context of time series regression,⁵ it indicates whether the residual errors show a trend or pattern. This can be indicative of other factors explaining the relationship.

The Durbin-Watson statistic varies between 0 and 4, with a value of 2 indicating no autocorrelation. Values away from 2 indicate a departure from this, with significance depending on the number of observations and the number of variables (i.e., the degrees of freedom). Standard tables are available.⁶

Based on the number of observations and variables, it would appear that all of Toronto Hydro’s class specific models would fail the null hypothesis of no autocorrelation.

⁵ In the time series context, autocorrelation is also referred to as serial correlation.

⁶ https://www3.nd.edu/~wevans1/econ30331/Durbin_Watson_tables.pdf

Question(s):

- a) Please advise whether Toronto Hydro formally tested for autocorrelation.
- b) If so, has Toronto Hydro attempted to correct for autocorrelation, such as through the use of an autoregressive (AR) model, where a previous period endogenous (left-hand side) variable is used to explain the current period. For example, for a monthly model, an AR(1) or AR(12) approach might be used. If Toronto Hydro has tried such an approach, please explain the results and why it was rejected. If Toronto Hydro has not tried to correct for autocorrelation, please explain.

3-Staff-105

**Ref: Exhibit 3 / Tab 1 / Schedule 1 / pp. 9, 16
Exhibit 3 / Tab 1 / Schedule 2 / p. 3**

Preamble:

Toronto Hydro states:

“Customer additions in Toronto Hydro’s service territory have been fairly steady over the recent period, driven mainly by Residential and CSMUR customer additions, while General Service classes remain more flat year over year. The utility’s forecast of new customers is primarily based on extrapolation models for each rate class with the exception of the CSMUR rate class (implemented on June 1, 2013), whose forecast customer additions are based on market knowledge of suite metering and multi-unit dwelling construction in Toronto Hydro’s service area, as well as an application of expert judgement” (Exhibit 3 / Tab 1 / Schedule 1 / p. 16).

Question(s):

- a) Please provide more information on the “extrapolation models” used to derive all customer class forecasts except the CSMUR rate class (Exhibit 3 / Tab 1 / Schedule 1 / p. 16).
- b) For the CSMUR rate class, please provide more detail on the model used to derive the load forecast for that class. Please advise to what extent qualitative judgement is used in deriving the forecast for this class. Please advise what factors are taken into account in applying that judgement (Exhibit 3 / Tab 1 / Schedule 1 / p. 16).

- c) Please explain why the customer count for the CSMUR rate class is expected to slow beginning in 2018 (relative to the previous years – 2013-2017) with the slower growth continuing through the 2020-2024 period (Exhibit 3 / Tab 1 / Schedule 2 / p. 3).
- d) Toronto Hydro references a Toronto city population forecast based on a Toronto Census Metropolitan Area forecast from the Conference Board of Canada (Exhibit 3 / Tab 1 / Schedule 1 / p. 9). Please advise whether this information is used in deriving the customer forecasts for any of the classes. If so, please explain how this data is used.

3-Staff-106

Ref: Exhibit 3 / Tab 1 / Schedule 1

The Toronto Transit Commission placed into service the extension of the Spadina subway line on December 17, 2017, extending the line from Downsview to Vaughan.⁷ As such, this extension was only in service for two weeks at the end of the historical actuals on which the load forecast is based.

The Metrolinx Crosstown LRT is currently being built along Eglinton Avenue from the west to the east of much of Toronto. The project is expected to be completed in 2021⁸, and will therefore come into service during the 2020-2024 period.

Both of these are major projects for electrified mass transit in Toronto. OEB staff recognize that there would also be electricity demand and consumption during the multi-year period for construction, testing and commissioning before going into service. However, it is not clear how Toronto Hydro has factored major projects like these into its load forecast for the applicable customer class.

Question(s):

- a) Were there any similar projects during the historical period 2012 to 2017, excepting construction of these two projects? If so, please identify.

⁷

https://www.ttc.ca/Spadina/Project_News/News_Events/News_by_Date/2017/December/SubwayOpens.jsp

⁸ <http://www.metrolinx.com/en/greaterregion/projects/crosstown.aspx>

- b) Has Toronto Hydro made any adjustments to account for the Spadina line extension in the forecast for the 2018-2024 bridge and test period? If so, please explain.
- c) Has Toronto Hydro made any adjustments to account for the Crosstown LRT entering service during the test period of the plan? If so, please explain.
- d) If Toronto Hydro has not adjusted for the Spadina subway extension and/or the Crosstown LRT, please provide the following:
 - i. Estimates of the kWh or kW, by year in the plan period on a best efforts basis, of the impact of these two major transportation systems
 - ii. Adjusted system load and demand (kWh and kW) including the estimates in part (i).

Revenue Offsets

3-Staff-107

Ref: Exhibit 3 / Tab 2 / Schedule 1 / p. 5
Exhibit 3 / Tab 2 / Schedule 2
Chapter 2 Appendices / Appendix 2-H

Question(s):

- a) Please provide a breakdown of the \$6.7 million total net gain on sales that occurred during the 2015-2017 period and explain why Toronto Hydro does not expect there to be any net gains of this nature during the 2020-2024 period (Exhibit 3 / Tab 2 / Schedule 1 / p. 5).
- b) Please provide the pole attachment revenues that Toronto Hydro has included in its revenue offset forecast for 2020 and compare to the 2015-2019 period. Please advise where that revenue is included in Appendix 2-H (Exhibit 3 / Tab 2 / Schedule 2).

Exhibit 4A – Operating Costs

OM&A Costs Summary

4A-Staff-108

Ref: Exhibit 4A / Tab 1 / Schedule 1 / pp. 2-3

Chapter 2 Appendices / Appendix 2-D

Question(s):

- a) Please provide 2015 OEB-approved OM&A amounts in the same format as Table 1 (Exhibit 4A / Tab 1 / Schedule 1 / pp. 2-3).
- b) At the segment level for each OM&A program (e.g. overhead line patrols, vegetation management, etc.), provide the total OM&A separated by capitalized and non-capitalized. Please reconcile the amount provided to Appendix 2-D and explain any variances.

Preventative and Predictive Overhead Line Maintenance

4A-Staff-109

Ref: Exhibit 4A / Tab 2 / Schedule 1 / pp. 33, 37

Question(s):

- a) Please provide the vegetation management costs from 2010-2014 (Exhibit 4A / Tab 2 / Schedule 1 / p. 33).
- b) Please explain whether Toronto Hydro believes that increased spending on vegetation management (Exhibit 4A / Tab 2 / Schedule 1 / p. 33) would result in lower capital spending requirements. Please explain in detail the relationship between Toronto Hydro's proposed capital spending and its vegetation management program.
- c) Please advise whether the 8-year seal extension for smart meters (after the meters pass testing) is a mandated extension period or a Toronto Hydro determined extension period (Exhibit 4A / Tab 2 / Schedule 1 / p. 37).

Preventative and Predictive Underground Line Maintenance

4A-Staff-110

Ref: Exhibit 4 / Tab 2 / Schedule 2 / p. 33

Question(s):

- a) Please further explain the change in treatment of the contact voltage segment from a capital program to an OM&A program (Exhibit 4A / Tab 2 / Schedule 2 / p. 33).

Emergency Response

4A-Staff-111

Ref: Exhibit 4A / Tab 2 / Schedule 5 / pp. 15-16

Question(s):

- a) The emergency response budget from 2015-2020 is essentially flat (Exhibit 4A / Tab 2 / Schedule 5 / p. 15). Please explain in the context of the activities undertaken within the program.
- b) Toronto Hydro notes that when emergency response call volume is low, this creates opportunities for the completion of other work (Exhibit 4A / Tab 2 / Schedule 5 / p. 16). Please advise whether this other work is included in the emergency response budget or in other OM&A program budgets.

Disaster Preparedness Management

4A-Staff-112

Ref: Exhibit 4 / Tab 2 / Schedule 6 / p. 13

Question(s):

- a) Please provide a breakdown of the program costs (2015-2020) between internal and external costs (Exhibit 4A / Tab 2 / Schedule 6 / p. 13).

Control Centre Operations

4A-Staff-113

Ref: Exhibit 4 / Tab 2 / Schedule 7 / pp. 11, 13

Question(s):

- a) Please provide the number of power system control apprentices hired in 2015-2017 (Exhibit 4A / Tab 2 / Schedule 7 / p. 11).

- b) Please advise whether Toronto Hydro is on track to hire 13 power system control apprentices in 2018 (Exhibit 4A / Tab 2 / Schedule 7 / p. 11).
- c) Please provide a breakdown of the cost increase in control centre operations (from 2015 to 2020) by cost driver (i.e. renewal of staff, 24/7 operation, and additional support) (Exhibit 4A / Tab 2 / Schedule 7 / p. 13).

Customer-Driven Work

4A-Staff-114

**Ref: Exhibit 4A / Tab 2 / Schedule 8 / pp. 5, 7
Exhibit 8 / Tab 2 / Schedule 1 / p. 2**

Question(s):

- a) Toronto Hydro notes that the decrease in customer-owned equipment service costs between 2015 and 2018 is driven by customer-specific payment for isolations (Exhibit 4A / Tab 2 / Schedule 8 / p. 5). Please further explain. Specifically, please advise whether prior to 2018 customers did not pay for this service directly. Please also advise whether this issue is related to the proposed change in the “service call – customer-owned equipment” specific service charge (Exhibit 8 / Tab 2 / Schedule 1 / p. 2).
- b) Please provide a status update with respect to the customer relationship management system pilot (Exhibit 4A / Tab 2 / Schedule 8 / p. 7).

Asset and Program Management

4A-Staff-115

**Ref: Exhibit 4A / Tab 2 / Schedule 9 / pp. 10, 20
Exhibit 4A / Tab 2 / Schedule 18 / p. 6**

Question(s):

- a) Please advise whether the DSP-related costs are included in the one-time costs for the application (Exhibit 4A / Tab 2 / Schedule 18 / p. 6) or in the asset and program management costs (Exhibit 4A / Tab 2 / Schedule 9).

- b) Please further explain the changes to the incentive payments for demand response programs (Exhibit 4A / Tab 2 / Schedule 9 / p. 10).
- c) Please advise whether the asset and program management budget includes any CWIP write-offs for the 2020 forecast (Exhibit 4A / Tab 2 / Schedule 9 / p. 20). If so, please provide the amount and explain why it is included in the forecasted budget for this program.

Work Program Execution

4A-Staff-116

Ref: Exhibit 4A / Tab 2 / Schedule 10 / p. 8

Question(s):

- a) Please provide the apprentice labour costs for the 2015-2020 period (Exhibit 4A / Tab 2 / Schedule 10 / p. 10).

Supply Chain Service

4A-Staff-117

Ref: Exhibit 4A / Tab 2 / Schedule 13 / pp. 6-8

Preamble:

Toronto Hydro notes that it is in the process of gradually transitioning the majority of operational procurement responsibilities to a third-party procurement provider.

Toronto Hydro also notes that a third-party logistics provider has assumed a significant role in Toronto Hydro's warehousing duties (Exhibit 4A / Tab 2 / Schedule 13 / pp. 6-8).

Question(s):

- a) Please provide additional information with respect to the transition to using third parties to provide these services. Specifically, for each year (2015-2020), please provide a breakdown of the costs in this program as between internal and external costs (Exhibit 4A / Tab 2 / Schedule 13 / pp. 6-8).

Customer Care

4A-Staff-118

**Ref: Exhibit 4A / Tab 2 / Schedule 14 / pp. 1, 13, 35
Exhibit 9 / Tab 1 / Schedule 1 / p. 30**

Question(s):

- a) Please advise whether the bad debt expense (shown at Exhibit 9 / Tab 1 / Schedule 1 / p. 30 for 2015-2019) is included in this program (Exhibit 4A / Tab 2 / Schedule 13 / p. 1). If so, please provide the bad debt expense for 2020. If not, please advise in which program the bad debt expense is included and provide the 2020 amount.
- b) Toronto Hydro notes that the net incremental cost of monthly billing is \$4.6 million per year (Exhibit 4A / Tab 2 / Schedule 14 / p. 13) and refers to Exhibit 9 / Tab 1 / Schedule 1 where a detailed calculation can be found. Please advise where the \$4.6 million figure can be found in the noted exhibit. Please advise whether this net incremental cost figure includes the offsets expected from Toronto Hydro's forecast of having more customers switching to e-billing by 2020.
- c) Please explain where (in which program or program segment) the coincident cost decrease related to the move of the Customer Operations Communications Office to the communications and public affairs program is found (Exhibit 4A / Tab 2 / Schedule 14 / p. 35).

Human Resources and Safety

4A-Staff-119

Ref: Exhibit 4A / Tab 2 / Schedule 15 / pp. 9, 24

Question(s):

- a) Please advise in which program (or program segment), the cost decreases associated with lower WSIB claims, lower WSIB NEER costs and WSIB rebates are found (Exhibit 4A / Tab 2 / Schedule 15 / p. 9). Please quantify these savings in terms of the budget reduction included in the 2020 forecast.
- b) Please provide the number of FTEs that are being hired to support the recruitment of employees to address planned retirements in all workforce segments (Exhibit 4A / Tab 2 / Schedule 15 / p. 24). Please provide the number

of FTEs that were or are planned to be in the Human Resources department for each year 2015-2020.

Finance

4A-Staff-120

Ref: Exhibit 4A / Tab 2 / Schedule 16 / p. 9

Preamble:

Toronto Hydro notes that the finance group provides regular reports and analysis of the capital work plan and this function enables Toronto Hydro to track and monitor its performance relating to the execution of its capital plan.

Question(s):

- a) Please advise whether the noted reports could be filed annually with the OEB.

Information Technology

4A-Staff-121

Ref: Exhibit 4A / Tab 2 / Schedule 17 / pp. 7, 14

Question(s):

- a) Please provide a detailed breakdown of the IT operations costs including separate lines for subscription fees / licensing fees and maintenance contracts (Exhibit 4A / Tab 2 / Schedule 17 / pp. 7, 14).

Legal and Regulatory Costs

4A-Staff-122

Ref: Exhibit 4A / Tab 2 / Schedule 18 / Appendix A

Question(s):

- a) Please explain why Toronto Hydro forecasts that the costs associated with the current application will be approximately \$2.6 million higher than the 2015-2019 Custom IR application. As part of the response, please discuss why forecast 2020 intervenor costs are \$0.35 million higher than 2015 actual costs.

- b) Please explain the methodology Toronto Hydro used to forecast 2020 OEB annual assessment costs and OEB Section 30 costs.
- c) Please explain the \$0.8 million other regulatory agency fee.

Charitable Donations and Low-Income Energy Assistance (LEAP) Program Funding

4A-Staff-123

Ref: Exhibit 4A / Tab 2 / Schedule 19 / p. 3

Question(s):

- a) Please provide the calculation supporting the annual LEAP contribution amount (Exhibit 4A / Tab 2 / Schedule 19 / p. 3).

Common Costs and Adjustments

4A-Staff-124

Ref: Exhibit 4A / Tab 2 / Schedule 20 / p. 2
EB-2015-0040 / Report of the Ontario Energy Board on Regulatory Treatment of Pension and Other Post-employment Benefit (OPEBs) Costs
EB-2014-0116 / Decision and Order / p. 13

Preamble:

The OEB established the use of accrual accounting as the default method on which to set rates for pension and OPEB amounts in cost based applications, unless the method does not result in just and reasonable rates (EB-2015-0040 / Report of the Ontario Energy Board on Regulatory Treatment of Pension and OPEB Costs).

As part of the current application, Toronto Hydro has proposed to account for its OPEB costs on an accrual basis for ratemaking purposes. For the 2015-2019 period, Toronto Hydro was ordered by the OEB to recover its OPEB costs on a cash basis pending the result of the OEB's generic consultation on the regulatory treatment of pension and OPEB costs. It further ordered Toronto Hydro to track the differential between cash and accrual for its OPEBs in a variance account (EB-2014-0116 / Decision and Order / p. 13).

Question(s):

- a) Using Toronto Hydro's most recent actuarial valuation and other relevant data, please prepare a table that compares the expected total OPEB costs on a cash basis versus on an accrual accounting basis over the next 10-years (i.e. from 2018 inclusive). If Toronto Hydro is unable to produce a forecast over the requested period, please explain why such an analysis is not possible and then prepare a forecast over a period of time that the current available information permits.
- b) With respect to the use of the accrual method as the default method to recover pension and OPEB costs, the OEB states:

“In summary, this Report establishes the use of the accrual accounting method as the default method on which to set rates for pension and OPEB amounts in cost-based applications. A panel of the OEB can use another method if accrual accounting does not result in just and reasonable rates” (EB-2015-0040 / Report of the OEB on the Regulatory Treatment of Pension and OPEB Costs / p. 2).
- i. Using the forecast of the OPEB costs that is provided in response to part (a), along with other relevant data and information, please explain why Toronto Hydro believes that the use of the accrual method to recover its OPEB costs will result in just and reasonable rates.

Allocations and Recoveries

4A-Staff-125

**Ref: Exhibit 4A / Tab 2 / Schedule 21 / pp. 1, 3
Chapter 2 Appendices / Appendix 2-D**

Question(s):

- a) For 2020, please breakout the amount of the on-cost recovery and fleet recovery offset that is capitalized and assigned to the capital budget (Exhibit 4A / Tab 2 / Schedule 21 / p. 1). Please show how the capitalized amount reconciles to Appendix 2-D.
- b) For the 2020 on-cost recovery and fleet recovery offset, please advise to which:

- i. OM&A programs the reductions are assigned.
 - ii. OM&A and capital programs the related increases are assigned.
- c) With respect to the programs provided in response to part (b), please explain whether the proposed budget amounts presented in the evidence for those programs are already net of the on-cost recovery and fleet recovery adjustments.
- d) Please provide a breakdown of the IT and occupancy charges as between the two categories (Exhibit 4A / Tab 2 / Schedule 21 / p. 3).
- e) Please advise whether the entire 2020 forecast of \$1.0 million for IT and occupancy is allocated to the non-rate regulated business. Please provide detailed calculations supporting the allocation (Exhibit 4A / Tab 2 / Schedule 21 / p. 3).

Non-Affiliate Services

4A-Staff-126

Ref: Exhibit 4A / Tab 3 / Schedule 1 / Appendix B

Question(s):

- a) For each sole sourced purchase listed, please provide rationale supporting the need to sole source the material or service.

Workforce Staffing and Compensation

4A-Staff-127

Ref: Exhibit 4A / Tab 4 / Schedule 1 / pp. 5, 7

Question(s):

- a) Please provide a breakdown for the increase in compensation costs from \$211.1 million in 2015 to \$244.2 million in 2020 as between costs for incremental employees and increased costs for existing positions (Exhibit 4A / Tab 4 / Schedule 1 / p. 5).
- b) Please confirm that the cost of employee benefits of \$64.8 million include both benefits and any pension / OPEBs costs for which Toronto Hydro is responsible.

If not, please provide the costs including all pension and OPEBs costs (Exhibit 4A / Tab 4 / Schedule 1 / p. 7).

4A-Staff-128

**Ref: Exhibit 4A / Tab 4 / Schedule 2 / p. 1
Exhibit 4A / Tab 4 / Schedule 3 / p. 11
Chapter 2 Appendices / Appendix 2-D**

Question(s):

- a) Please separate senior management (as described in Exhibit 4A / Tab 4 / Schedule 3 / p. 11) from the management (including executive) lines in the chart (Exhibit 4A / Tab 4 / Schedule 2 / p. 1).
- b) For salary and wages, please provide a breakdown of the total costs as between base salary, overtime and incentive pay (Exhibit 4A / Tab 4 / Schedule 2 / p. 1).
- c) Please advise whether are any forms of employee remuneration that are not captured under the total compensation line of the chart. If yes, please provide a description and dollar value to this remuneration (Exhibit 4A / Tab 4 / Schedule 2 / p. 1).
- d) Under the non-management category, please break out the costs for PWU members and SEP members (Exhibit 4A / Tab 4 / Schedule 2 / p. 1).
- e) Please provide a breakdown of employee total compensation costs as between capital and OM&A in each year and confirm that it reconciles to Appendix 2-D.

4A-Staff-129

Ref: Exhibit 4A / Tab 4 / Schedule 3 / p. 12

Preamble:

Toronto Hydro notes that from 2011 to 2013 it experienced a notable reduction in the size of its workforce, moving from approximately 1,737 FTEs to 1,527 FTEs in 2013. Toronto Hydro states that this reduction was the result of rebalancing of critical positions and organizational and job design (Exhibit 4A / Tab 4 / Schedule 3 / p. 12).

Question(s):

- a) Please advise whether Toronto Hydro received any external consulting help in assessing its FTE needs or if the assessment was completed internally. Specifically, please provide additional details on how it was determined that Toronto Hydro could operate effectively with approximately 200 fewer FTEs (Exhibit 4A / Tab 4 / Schedule 1 / p. 12).
- b) What, if any, similar analysis has been conducted with respect to Toronto Hydro's FTE needs for 2020?

4A-Staff-130

Ref: Exhibit 4A / Tab 4 / Schedule 3 / pp. 13, 20-21

Exhibit 4A / Tab 4 / Schedule 2 / p. 1

EB-2014-0116 / Exhibit 1A / Tab 2 / Schedule 1 / pp. 7-8

Preamble:

Toronto Hydro provided a discussion of the challenges it is facing on account of its aging workforce and notes that 23% of its current workforce will be eligible for retirement during the 2020-2024 period (Exhibit 4A / Tab 4 / Schedule 3 / p. 20).

In Toronto Hydro's 2015-2019 Custom IR application it notes that 25% of its workforce would be eligible for retirement during the 2015-2019 period (EB-2014-0116 / Exhibit 1A / Tab 2 / Schedule 1 / pp. 7-8).

Table 5 (Exhibit 4A / Tab 4 / Schedule 3 / p. 21) shows that Toronto Hydro significantly underestimated the number of retirements for the period 2015-2017

Question(s):

- a) Please explain what impact Toronto Hydro's aging workforce, and in particular its expected large number of retirements, have on its O&MA budget and compensation costs. To the extent that Toronto Hydro is expected to experience increased OM&A costs relative to the 2015-2019 rates application due to retirements, please discuss why this would happen in the context that the previous application described similar aging workforce and retirement challenges (EB-2014-0116 / Exhibit 1A / Tab 2 / Schedule 1 / pp. 7-8).
- b) Although Toronto Hydro expected up to 25% of its workforce to retire from 2015-2019 (EB-2014-0116 / Exhibit 1A / Tab 2 / Schedule 1 / pp. 7-8), and retirements exceeded expectations from 2015-2017 (Exhibit 4A / Tab 4 / Schedule 3 / p. 21),

Toronto Hydro's FTEs increased by 35 between 2015 and 2020. The average salary per employee also increased by about \$12,000 per year over this period (Exhibit 4A / Tab 4 / Schedule 2 / p. 1). Please explain why increased retirements resulted in more employees and higher average costs per employee.

- c) Please advise, using the latest available figures, what percentage of the then existing workforce actually retired. Please advise whether it is still expected that 25% of the workforce that was in place in 2015 will retire by the end of 2019.
- d) Please explain what changes, if any, Toronto Hydro has made to its methodology for predicting retirements in light of the accuracy of the forecasts made in the 2015-2019 Custom IR application (Exhibit 4A / Tab 4 / Schedule 3 / p. 21).
- e) Toronto Hydro experienced significantly more retirements than it was anticipating from 2015-2017 (Exhibit 4A / Tab 4 / Schedule 3 / p. 21). Please explain what impact this had on Toronto Hydro's forecast versus actual compensation costs over the 2015-2017 period.

4A-Staff-131

Ref: Exhibit 4A / Tab 4 / Schedule 3 / p. 25

Preamble:

Toronto Hydro notes that one of its mitigation strategy for its aging workforce is to rely on third-party service providers.

Question(s):

- a) Please explain what restrictions, if any, are contained in Toronto Hydro's collective agreements with the PWU and/or the SEP with respect to contracting work out to third-party service providers.
- b) Please provide the 2015 forecast and 2015-2019 actual and forecast costs for third-party service providers.
- c) Please advise whether Toronto Hydro has increased its reliance on third-party service providers since 2015. If yes, please provide any business cases that were completed to support the increased reliance on third-party service providers.

- d) Please provide the forecast costs for third-party service providers in 2020.

4A-Staff-132

Ref: Exhibit 4A / Tab 4 / Schedule 4 / pp. 14-15

Preamble:

In Table 7, Toronto Hydro provides its historical and forecast Pension costs for the 2015-2020 period (Exhibit 4A / Tab 4 / Schedule 4 / p. 15). Toronto Hydro is part of the OMERS pension plan.

Since Toronto Hydro is part of the OMERS pension plan, its level of contributions to the plan in a given year would represent its accrual pension cost for the year and what is seeks to recover in rates for regulatory purposes.

Question(s):

- a) Using the contribution formula presented for 2020 in Table 6 (Exhibit 4A / Tab 4 / Schedule 4 / p.15), please provide a detailed calculation of the test period 2020 pension costs. Where possible, please ensure that all inputs used in the calculation are referenced to the appropriate compensation sections of the current application.

4A-Staff-133

**Ref: Exhibit 4A / Tab 4 / Schedule 4 / p. 16
Exhibit 4A / Tab 4 / Schedule 6**

Preamble:

In Table 8, Toronto Hydro provides its historical and forecast OPEB costs for the 2015-2020 period (Exhibit 4A / Tab 4 / Schedule 4 / p. 16).

Question(s):

- a) Please confirm whether the amounts presented in Table 8 (Exhibit 4A / Tab 4 / Schedule 4 / p. 16) have been prepared on an accrual basis, cash basis, or a combination of the two depending on which method Toronto Hydro was approved to use for each year.

- b) Please explain what is underpinning the OPEB costs presented for 2020 in light of the fact that the OPEB valuation that Toronto Hydro submitted (Exhibit 4A / Tab4 / Schedule 6) is to value its fiscal year 2017 OPEB costs. Please explain how the amount presented in 2020 was quantified, provide the necessary supporting evidence, and explain why the amount being sought for the test year is reasonable.
- c) Given that interest rates have been on the rise since 2017, OEB staff would expect to see declining OPEB expense amounts from 2017 and onward. However, Table 8 (Exhibit 4A / Tab 4 / Schedule 4 / p. 16) projects stable OPEB costs amount of between \$15 million and \$16 million. Please explain why this would be a reasonable assumption in the context of rising interest rates.

Mercer – Non-Executive Compensation and Benefits Review

4A-Staff-134

Ref: Exhibit 4A / Tab 4 / Schedule 5 / pp. 1-2

Question(s):

- a) The study only examines non-executive employees (Exhibit 4A / Tab 4 / Schedule 5 / p. 1). Please advise what positions are categorized by Toronto Hydro (and Mercer) as executive level and therefore not covered by the report.
- b) Please explain why Mercer did not review executive compensation and benefits.
- c) Please advise what analysis Toronto Hydro has conducted to assess the reasonableness of its executive compensation and benefits costs. Please file any relevant documents.
- d) The report does not include any analysis regarding Toronto Hydro's overall compliment of employees (i.e. analysis on whether the number of employees is comparable to other similar organizations). Please advise whether Toronto Hydro conducted any analysis on its overall number of employees. If so, please provide any relevant documents.
- e) Please advise whether the 9 page report (including appendices) filed by Toronto Hydro is all of the material and analysis Toronto Hydro received from Mercer. If not, please file any additional materials.

- f) The analysis includes 265 of the 582 management and professional employees and 531 of the 850 bargaining unit positions (which comprises 56% of the total population considered in-scope for the review) (Exhibit 4A / Tab 4 / Schedule 5 / p. 2). Please explain how the job positions included in the review were selected.

4A-Staff-135

Ref: Exhibit 4A / Tab 4 / Schedule 5 / pp. 3-4

Preamble:

The report includes a table that compares Toronto Hydro employee compensation levels with comparator groups (Exhibit 4A / Tab 4 / Schedule 5 / p. 4).

Question(s):

- a) Please advise whether, in assessing the base salary, target total cash compensation, and total remuneration for the matched Toronto Hydro positions (grades), Mercer used the mid-point of the relevant salary band as the point of comparison. If not, please explain.
- b) Please advise whether any Toronto Hydro employees earn base salaries, target total cash compensation, or total remuneration higher than would ordinarily be permitted under their salary band.
- c) The table shows 17 positions (grades) that were compared (Exhibit 4A / Tab 4 / Schedule 5 / p. 4). The PWU and SEP are each assigned only one grade. Please advise whether all SEP and PWU members have the same position and salary band. If there is a more detailed break out of SEP and PWU positions available, please provide and explain how those positions compare to the comparator groups.
- d) Please add a column to the chart showing the number of Toronto Hydro employees under each grade for 2017 (the year reflected in the study) (Exhibit 4A / Tab 4 / Schedule 5 / p. 3). If more SEP and PWU positions are added pursuant to question (c) please provide the number of employees for each of these positions as well.
- e) Please advise whether Mercer conducted any company-wide weighted analysis of the Toronto Hydro's total remuneration as compared to the two peer groups. If so, please provide.

4A-Staff-136**Ref: Exhibit 4A / Tab 4 / Schedule 5 / p. 5**

The report states, “W2 grade total cash compensation continues to exceed the market median due to upward pay pressures between management and directly supervised union positions. Society represented positions roles are paid above the competitive range relative to the energy peer group” (Exhibit 4A / Tab 4 / Schedule 5 / p. 5).

Question(s):

- a) Please list the SEP position(s) that work under the W2 position. Please provide the data showing how much above P50 these positions are for total remuneration. Please explain whether this is an issue for other positions as well.

4A-Staff-137**Ref: Exhibit 4A / Tab 4 / Schedule 5 / pp. 4-6**

Preamble:

Tables 1 and 2 (Exhibit 4A / Tab 4 / Schedule 5 / pp. 5-6) show the value of Toronto Hydro’s active benefits and pensions for each employee group considering employer provided value compared to the market 50th percentile across two peer groups.

Question(s):

- a) Please advise whether the positions captured under the management category are the same positions (other than PWU and SEP) that are listed on the compensation comparison table (Exhibit 4A / Tab 4 / Schedule 5 / p. 4).
- b) Please explain whether all management positions enjoy the same active benefits and pension.
- c) For the management active benefits and pensions analysis, please advise whether all positions are weighted equally or are they instead weighted based on the number of employees in each position.
- d) Please advise whether all PWU and SEP employees enjoy the same active benefits and pensions.

- e) For the PWU and SEP active benefits and pensions analysis, please advise whether all positions are weighted equally or are they instead weighted based on the number of employees in each position.

Shared Services and Corporate Cost Allocations

4A-Staff-138

Ref: Exhibit 4A / Tab 5 / Schedule 1 / pp. 4-6

Question(s):

- a) Please explain why all of Toronto Hydro Energy employees were transferred to Toronto Hydro and provide the year in which this transfer occurred (Exhibit 4A / Tab 5 / Schedule 1 / p. 5).
- b) Please confirm that, in 2015, the net revenue related to the shared services with Toronto Hydro Energy was a \$0.1 million revenue offset for Toronto Hydro (Exhibit 4A / Tab 5 / Schedule 1 / p. 4).
- c) Please confirm that, for 2020, the net revenue of the shared services with Toronto Hydro Energy is forecast to be a \$1.6 million revenue offset for Toronto Hydro (Exhibit 4A / Tab 5 / Schedule 1 / p. 4). For 2020, please provide the costs that are included in Toronto Hydro's OM&A budget related to employees previously employed by Toronto Hydro Energy (Exhibit 4A / Tab 5 / Schedule 1 / pp. 4-5).
- d) Please explain how the costs of the services provided to Toronto Hydro's non-rate regulated business are reflected in the revenue requirement (Exhibit 4A / Tab 5 / Schedule 1 / p. 6).
- e) Please confirm that the \$3.9 million of revenues associated with services provided by Toronto Hydro to Toronto Hydro Corporation forecast for 2020 are treated as a revenue offset (Exhibit 4A / Tab 5 / Schedule 1 / p. 6).
- f) Please confirm that the \$4.6 million of costs paid to Toronto Hydro Corporation for services received by Toronto Hydro forecast for 2020 are included as an adjustment to the proposed OM&A budget (Exhibit 4A / Tab 5 / Schedule 1 / p. 6).

Exhibit 4B – Depreciation and PILs

Depreciation

4B-Staff-139

Ref: Updated Exhibit 4B / Tab 1 / Schedule 1 / pp. 2-4
Exhibit 4B / Tab 1 / Schedule 1 / Appendix A
Updated Exhibit 4B / Tab 1 / Schedule 1 / Appendix C

Question(s):

- a) For the asset categories that Toronto Hydro proposed Useful Life (ULs) outside the Kinectrics range, please provide supporting rationale (Updated Exhibit 4B / Tab 1 / Schedule 1 / Appendix C).
- b) Please explain how Toronto Hydro accurately forecasts, over a 5-year period, the particular month in which an asset will enter service (Exhibit 4B / Tab 1 / Schedule 1 / pp. 3-4).
- c) Please provide detailed working papers (showing the monthly data) supporting the depreciation expense schedule (Exhibit 4B / Tab 1 / Schedule 1 / Appendix A).

4B-Staff-140

Ref: Exhibit 4B / Tab 1 / Schedule 1 / pp. 4-6
Exhibit 1C / Tab 3 / Schedule 3 / Appendix C

Preamble:

Toronto Hydro discusses its decommissioning provision, and in particular the accounting behind the recognition of the liability and the offsetting debit to the carrying amount of the related asset (Exhibit 4B / Tab 1 / Schedule 1 / pp. 4-5).

Question(s):

- a) Please advise whether the decommissioning liabilities that have been capitalized to assets are included in the asset values that form part of rate base.
- b) Please explain whether Table 3 (Exhibit 4B / Tab 1 / Schedule 1 / p. 5) represents the total decommissioning liabilities that have been capitalized to date within Toronto Hydro capital assets or are these the incremental decommissioning liabilities that were recognized in each of the years presented.

- c) If the response to part (b) is that the amount shown in Table 3 (Exhibit 4B / Tab 1 / Schedule 1 / p. 5) represent incremental (new) liabilities recognized in each year, then please quantify the total year-to-date NBV of decommissioning liabilities that are included in Toronto Hydro's capital assets.
- d) Provide a continuity schedule of the decommissioning liability starting with the December 31, 2017 audited balance to 2020.
- e) Please explain whether the annual accretion expense related to the decommissioning liabilities, as presented in Table 4 (Exhibit 4B / Tab 1 / Schedule 1 / p. 5), forms part of the total depreciation and amortization expense that Toronto Hydro is seeking to recover, as shown in Table 5 (Exhibit 4B / Tab 1 / Schedule 1 / p. 6).
- f) Please reconcile the actual depreciation expense for 2017 in Table 5 (Exhibit 4B / Tab 1 / Schedule 1 / p. 6) to the depreciation expense shown in Note 6 of the 2017 audited financial statements (Exhibit 1C / Tab 3 / Schedule 3 / Appendix C).

Derecognition

4B-Staff-141

Ref: Exhibit 4B / Tab 1 / Schedule 2 / pp. 1-2

Question(s):

- a) Please provide a detailed breakdown of the assets disposed by category that generates the derecognition expense in each year 2015-2020 (Exhibit 4B / Tab 1 / Schedule 2 / p. 1).
- b) Please explain how the \$25.8 million forecasted derecognition expense for 2020 was calculated (Exhibit 4B / Tab 1 / Schedule 2 / p. 1). Please provide Toronto Hydro's position on using an average of the actual / forecasted derecognition expense for 2015-2019.

PILs

4B-Staff-142

**Ref: Exhibit 4B / Tab 2 / Schedule 1 / p. 1
Exhibit 4B / Tab 2 / Schedule 3**

Exhibit 1B / Tab 4 / Schedule 1 / p. 9
PILs Model

Question(s):

- a) Please provide a reference to where the investment tax credits of \$1.9 million are shown in the OM&A budget (Exhibit 4B / Tab 2 / Schedule 1 / p. 1).
- b) Please file the 2017 Corporate Tax Return.
- c) Toronto Hydro has not provided its PILs calculations for all years of the proposed Custom IR term. Currently only the 2020 calculations have been filed on the record of this proceeding. Please provide the PILs calculation for 2021-2024 in order to support the PILs amounts being sought in the C-factor for those years (Exhibit 1B / Tab 4 / Schedule 1 / p. 9).
- d) Please provide all supporting schedules for the 2021-2024 PILs calculations, including CCA continuities for each year.

Exhibit 5 – Cost of Capital

5-Staff-143

Ref: Exhibit 5 / Tab 1 / Schedule 1 / pp. 1, 5-6
Exhibit 5 / Tab 1 / Schedule 2 / p. 2

Question(s):

- a) Please provide Toronto Hydro's actual debt to equity ratio for each year 2015-2017 and forecast debt to equity ratio for each year 2018-2020.
- b) Please advise whether the 5 basis point fee charged for administration is the same fee that was approved as part of Toronto Hydro's 2015-2019 Custom IR proceeding (Exhibit 5 / Tab 1 / Schedule 1 / p. 5).
- c) Please describe the type of costs that 5 basis point administration fee covers. Please confirm that these same administrative costs are not already included in Toronto Hydro's OM&A budget (including any shared services payments to Toronto Hydro Corporation).

- d) For each promissory note with rates greater than the current deemed long-term debt (Exhibit 5 / Tab 1 / Schedule 1 / p. 5), please provide the following:
- i. The start date of the debt.
 - ii. The deemed long-term debt rate in place at the time the debt was issued.
 - iii. The need for the debt and rationale supporting taking the debt at the rate offered.
- e) Please explain the \$45 million promissory note that is due on demand. Specifically, please explain why the rate is set at the deemed long-term debt rate (Exhibit 5 / Tab 1 / Schedule 1 / p. 5).
- f) Please provide rationale supporting the need for the forecasted debt issues (Exhibit 5 / Tab 1 / Schedule 1 / p. 6).
- g) Please confirm that the 3.71% long-term debt rate (Exhibit 5 / Tab 1 / Schedule 2 / p. 2) includes the forecast debt to 2020 and the exclusion of any debt issuances that end in advance of the test year. Please provide the supporting calculation.

Exhibit 7 – Cost Allocation

7-Staff-144

Ref: Exhibit 7 / Tab 1 / Schedule 1 / p. 3
Exhibit 3 / Tab 1 / Schedule 2 / p. 3
Cost Allocation Model / Sheet I5.2

Toronto Hydro states:

“At 135 customers per kilometre, Toronto Hydro’s density factor is well above the 60 customers per kilometre ratio. The OEB’s model acknowledges that the customer related proportion of jointly determined costs is lower for denser systems. Given that Toronto Hydro’s density factor is much higher than the top grouping; the utility believes it is appropriate to use a custom-related proportion, which is aligned with the realities of Toronto Hydro’s system. For the current application, Toronto Hydro uses a density factor of 23 percent, as approved by the OEB in the EB-2014-0116 decision” (Exhibit 7 / Tab 1 / Schedule 1 / p. 3).

Question(s):

- a) Please explain the source of the 135 customers per km figure (Exhibit 7 / Tab 1 / Schedule 1 / p. 3). Specifically, please advise whether this is a historical number, and, if so, please provide the vintage of the number.
- b) Toronto Hydro refers to the multi-unit dwellings as a significant driver of demand over the test period (Exhibit 3 / Tab 1 / Schedule 2 / p. 3). Please advise whether the 135 customer per km estimate will remain the same during the 2020-2024 period (Exhibit 7 / Tab 1 / Schedule 1 / p. 3). If not, please provide a revised estimate of the value.
- c) Please explain why Toronto Hydro believe that the 23% density factor approved in the 2015-2019 Custom IR proceeding continues to be appropriate (Exhibit 7 / Tab 1 / Schedule 1 / p. 3). Please provide rationale supporting Toronto Hydro's proposal to not update the density factor for growth in multi-unit (i.e., high-density) dwellings (as experienced in the recent past and forecasted to continue over the 2020-2024 period).
- d) Please provide additional details supporting the weighting factors for billing and collections (Cost Allocation Model / Sheet I5.2), which are based on estimates developed by Toronto Hydro's billing specialists (Exhibit 7 / Tab 1 / Schedule 1 / p. 3).

7-Staff-145

Ref: Exhibit 7 / Tab 1 / Schedule 1 / p. 5

Preamble:

The following table highlights the 2015 OEB-approved and 2020 proposed revenue-to-cost ratios.

Revenue-to-Cost Ratios (%)

Rate Class	2015 OEB Approved	2020		OEB's Guideline Ranges
		Model	Proposed	
Residential	94.3	103.2	103.2	85-115
Competitive Sector Multi-Unit Residential	100.0	101.4	100.0	
General Service < 50 kW	91.5	89.6	89.8	80-120
General Service 50-999 kW	119.0	105.3	105.3	80-120
General Service 1000-4999 kW	101.9	94.9	95.0	80-120
Large Use	95.3	84.6	85.0	85-115

Street Lighting	82.7	108.9	108.9	80-120
Unmetered Scattered Load	90.5	94.6	94.7	80-120

Question(s):

a) Please explain the significant changes in the revenue-to-cost ratios for the following rate classes (between 2015 OEB-approved and 2020 proposed):

- i. Residential
- ii. GS 50-999 kW
- iii. GS 1000-4999 kW
- iv. Large User
- v. Street Lighting

b) Toronto Hydro is proposing to adjust the revenue-to-cost ratio for the Large Use class from 84.6% to 85.0% (between the model output and proposed), which is the minimum of the guideline range (Exhibit 7 / Tab 1 / Schedule 1 / p. 5). Please explain why Toronto Hydro is not proposing to increase the revenue-to-cost ratio for the Large Use class higher than the minimum of the guideline range in order to bring the class revenue-to-cost ratio closer to unity.

Exhibit 8 – Rate Design

Rate Design

8-Staff-146

Ref: Exhibit 8 / Tab 1 / Schedule 1 / pp. 5-6, 9, 11
Exhibit 9 / Tab 3 / Schedule 1 / p. 1
EB-2014-0116 / Decision and Order / p. 46

Question(s):

a) Please provide rationale supporting the proposal to not change the existing transformer allowance credit (Exhibit 8 / Tab 1 / Schedule 1 / p. 5).

b) Please provide illustrative examples showing the application of standby charges to a generation customer applying different assumptions regarding the status of generation output (and associated requirements for standby power) in a given month (Exhibit 8 / Tab 1 / Schedule 1 / p. 6).

- c) In the context of the OEB's findings in Toronto Hydro's 2015-2019 Custom IR proceeding that loss factors should be updated at the next rebasing proceeding (EB-2014-0116 / Decision and Order / p. 46), please explain why a line loss study was completed only for the Large Use rate class (Exhibit 8 / Tab 1 / Schedule 1 / p. 9).
- d) For the rate riders associated with: (a) the sale of property (excluding those property sales part of the OCCP); (b) accounts receivable credits; and (c) funds collected related to excess expansions deposits, please confirm that there are currently no existing DVAs in which the credit amounts are encumbered (Exhibit 8 / Tab 1 / Schedule 1 / p. 11).
- e) Please explain why the proceeds from the sale of the 50 / 60 Eglinton Ave. property are not included in the balance of the OCCP variance account (Exhibit 8 / Tab 1 / Schedule 1 / p. 11).
- f) Please show the calculation supporting the \$8.0 million after-tax gain related to the sale of the 50 / 60 Eglinton Ave. property (Exhibit 8 / Tab 1 / Schedule 1 / p. 11). Please also confirm that this amount is included in deferred gain on disposals line in the rate rider calculation schedule (Exhibit 9 / Tab 3 / Schedule 1 / p. 1 / Line 11). If not, please explain. If yes, please explain what else is included in the noted line item (as the total for that line item is \$11.7 million).
- g) With respect to the accounts receivable credits (\$3.2 million), please explain why no credits accrued after 2011 (Exhibit 8 / Tab 1 / Schedule 1 / p. 11).

Specific Service Charges

8-Staff-147

Ref: Exhibit 8 / Tab 2 / Schedule 1 / pp. 2

Question(s):

- a) Please provide a discussion of the types of services that fall under the Service Call – Customer Owned Equipment specific service charge (Exhibit 8 / Tab 2 / Schedule 1 / p. 2).

- b) Please explain the demand billable charge structure that Toronto Hydro proposes to apply for the services that fall under the Service Call – Customer Owned Equipment category (Exhibit 8 / Tab 2 / Schedule 1 / p. 2).

8-Staff-148

Ref: Toronto Hydro Conditions of Service (2019)

Preamble:

In Toronto Hydro's updated 2019 Conditions of Service⁹, there seem to be a number of charges for different services that do not have a dollar amount set out but instead the methodology for charging customers for those services is discussed.

For example, Section 1.7.5 (page 12 of the Conditions of Service) states that customers requiring vault access shall pay a fair and reasonable charge based on cost recovery principles for a Toronto Hydro person-in-attendance.

Question(s):

- a) Please provide a list of all the services set out in the Conditions of Service where Toronto Hydro charges for a service and there is no dollar amount set out for the charge and instead a methodology for calculating the charge is discussed.
- b) For each of the services listed in response to part (a), please provide the following:
- i. The average charge applied for the service.
 - ii. The total amount collected in each year 2015-2017.
 - iii. How the amounts collected are treated (e.g. are they considered revenues offsets).
 - iv. The forecast amount for 2020 (and references to where the amounts are accounted for in terms of offsets to the revenue requirement).

Bill Impacts

8-Staff-149

Ref: Exhibit 8 / Tab 6 / Schedule 1

⁹ <https://www.torontohydro.com/sites/electricsystem/business/ConditionsofService/Pages/default.aspx>.

Question(s):

- a) For each rate class, please provide a table showing the sub-total A amounts for each year 2010-2024 in the following two ways:
 - i. Including rate riders
 - ii. Excluding rate riders

Exhibit 9 – Deferral and Variance Accounts

9-Staff-150

Ref: Exhibit 9 / Tab 1 / Schedule 1 / pp. 5-6, 13

Preamble:

Toronto Hydro stated that the amounts proposed for disposition in its DVAs include the balances as reflected in the audited financial statements for the fiscal year ended December 31, 2017 (Exhibit 9 / Tab 1 / pp. 5-6). In addition, some accounts seem to include forecasted balances to December 31, 2019 (e.g. the CRRVA) (Exhibit 9 / Tab 1 / Schedule 1 / p. 13).

Question(s):

- a) For each DVA that Toronto Hydro is seeking approval to dispose as part of the current proceeding, please provide the following:
 - i. A statement as to which year-end balance is being sought for clearance.
 - ii. A statement as to whether Toronto Hydro intends to update the 2018 forecast year-end balances with actual 2018 year-end balances as part of the application update.
 - iii. A statement as to whether the account includes any forecast balances for clearance.
- b) The OEB's policy is to review and approve the disposition of audited DVA account balances. The OEB relies on audited DVA account balances in order to assist with its overall assessment of the validity and accuracy of the disposition amounts. To that end, it is the OEB's expectation that all 2020 rate applications will seek to dispose of 2018 audited DVA balances. In light of this, please explain why Toronto Hydro is proposing to dispose of some 2019 forecast DVA balances as part of its 2020 rates application. Please further explain why Toronto Hydro

believes that a deviation from the OEB policy is appropriate and results in just and reasonable rates.

- c) For all DVAs that include forecasted amounts, which may eventually be approved for disposition in the current application, please confirm that it is Toronto Hydro's intention to continue to track and record the actual transactions for each account up to the end of the 2019 for the purpose of truing-up the amounts that were approved for disposition to actual.

9-Staff-151

Ref: Exhibit 9 / Tab 1 / Schedule 1 / pp. 6-7

Preamble:

Toronto Hydro indicates that it recorded true-up adjustments to previously approved balances by the OEB in both Account 1555 Stranded Meters and Account 1575 IFRS US GAAP Transitional PP&E Amounts. In both instances, Toronto Hydro indicated that the true-up was necessary in order to bring the approved balance of each account in-line with actual, and that each true-up is consistent with the underlying guidance issued by the OEB.

Question(s):

- a) Please advise whether the actual December 31, 2014 NBV of the stranded meters can be reconciled to the December 31, 2014 audited financial statements. If not directly, then please provide the underlying asset continuity schedule for 2014 that reconciles to the 2014 audited financial statements and that presents the actual NBV of these stranded meters.
- b) Please advise whether the actual \$28.9 million of IFRS transitional adjustment to PP&E is disclosed in the transitional note disclosure that was provided in the audited financial statements in the year of transition. If so, please provide that note disclosure and reconcile accordingly. If this amount is part of a larger balance that is disclosed in the notes, then please provide a break-down of that larger balance and show that this component is picked-up in that balance.
- c) Please advise whether Toronto Hydro proposes to close the Stranded Meters account and IFRS USGAAP Transitional PP&E Amounts account. If not, please explain why.

9-Staff-152

Ref: Exhibit 9 / Tab 1 / Schedule 1 / pp. 7-10

EB-2012-0079 / Decision and Order / p. 8

EB-2015-0040 / Report of the Ontario Energy Board on Regulatory Treatment of Pension and OPEB Costs

Preamble:

Toronto Hydro is seeking disposition of a debit (recovery) balance of \$85.3 million in Account 1508 – Other Regulatory Assets, Subaccount – Impact for USGAAP, which captures the impact of the change in the accounting for OPEBs as a result of Toronto Hydro's transition to a different accounting framework.

Question(s):

- a) Initially, when this account was approved by the OEB, it was to capture the OPEB transition adjustment related to Toronto Hydro's transition from CGAAP to USGAAP, mainly to recognize the unamortized actuarial gains and losses at the date of transition as a regulatory asset instead of in OCI (Exhibit 9 / Tab 1 / Schedule 1 / p. 7). As set out in the Decision and Order, this OPEB transitional impact was \$30 million (EB-2012-0079 / Decision and Order / p. 8). However, per the DVA continuity schedule that Toronto Hydro submitted as part of this application, it is showing an initial impact (in 2012) of \$61.5 million (Exhibit 9 / Tab 2 / Schedule 1 / p. 1). Please explain why there is such a significant difference compared to what was disclosed in the original application.
- b) Please advise whether this initial transitional balance of \$61.5 million recorded in the DVA continuity (Exhibit 9 / Tab 2 / Schedule 1 / p. 1) can be reconciled to the transitional impacts note disclosure of the audited financial statements for the transition year. If so, please provide and reconcile accordingly. If not, then please provide the back-up that was used quantify and record this amount.
- c) The balances recorded in the account that relates to the difference in OPEB accounting arising from the transition to USGAAP was to continue to be amortized annually like it would have under CGAAP. Please explain where this annual amortization has been recorded in the DVA continuity schedule. If there was no amortization of the balance, please explain why.
- d) For all years in which this account has transactions recorded, please provide a table to breakout each annual transactions balance in the DVA continuity

between the portion that relates to amortization, gains and losses, and plan amendments and also itemize any other components that are captured in the account. Also for each of the years, please indicate whether the account is picking up the difference between CGAAP and USGAAP or USGAAP and IFRS.

- e) Please confirm that all components that are itemized within the table requested in part (d) can be tied directly to an actuarial valuation done for the respective years. For any item that cannot be tied directly to an actuarial valuation, please explain the source of the entry and how it was quantified.
- f) The OEB indicates that utilities that have an OEB-approved account to capture annual actuarial gains and losses that are recognized to OCI under IFRS (and never amortized) may propose disposition of the account in future rates proceedings if the gains and losses tracked in this account do not substantively offset over time (OEB Report on the Regulatory Treatment of Pension and OPEB Costs / p. 13). In the context that the noted report does not define the length of period needed in order to make such a determination, please explain why Toronto Hydro believes that the current time-period that has elapsed and has been examined within its analysis is long enough to conclude this balance will not be offset over-time.
- g) Please clarify, and quote the source of any data that is being used to justify Toronto Hydro's position (including the period that the data relates to) that interest rates will remain stable (Exhibit 9 / Tab 1/ Schedule 1 / pp. 8-9).
- h) Please provide the discount rate that would be used if an OPEB valuation was done as of December 31, 2018, calculated on the same basis as the December 31, 2017 discount rate that was used in Toronto Hydro's last OPEB valuation (3.5%) (Exhibit 9 / Tab 1/ Schedule 1 / p. 9).
- i) Fluctuations in discount rates are only one aspect of an actuary's assumptions that can give rise to actuarial gains and losses. There are other assumptions, such as mortality rates, demographics, and health costs that can vary compared to actual experience and result in actuarial gains and losses. Please explain why Toronto Hydro has not given any consideration to these factors.
- j) From its last actuarial valuation, please breakdown the total actuarial gain and loss that is attributed to each key assumption (e.g. percentage of total gain/loss relating to discount rate assumption, percentage relating to health cost, etc).

Please provide a breakdown of the top 5 assumptions, with the remainder going to “other.”

- k) Please advise whether Toronto Hydro investigated other ways to dispose of the balance in this account. For example, was any consideration given to employing the corridor approach used by USGAAP to the balance in this account, or amortizing over the average remaining service life of the employees. Please explain what other methodologies were considered in order to minimize the impact on ratepayers.

9-Staff-153

Ref: Exhibit 9 / Tab 1 / Schedule 1 / pp. 10-11

Preamble:

Toronto Hydro notes that \$36.8 million of the variance recorded in the CRRVA is related to an error in the estimated UL used to calculate the depreciation for meters in the 2015-2019 forecast. The effect of the error is that the approved capital-related revenue requirement that was funded through rates was higher than required (Exhibit 9 / Tab 1 / Schedule 1).

Question(s):

- a) Please advise when the depreciation rate error first occurred (i.e. in the pre-filed evidence or in the draft rate order). Please provide excerpts from the 2015-2019 Custom IR evidence that highlights where the error can be found.
- b) Please confirm that the depreciation rate used for meters has been properly updated in the current application to fix the error on a go-forward basis. Please provide specific evidence references to Toronto Hydro’s depreciation evidence (Exhibit 4B / Tab 1).
- c) Please explain what controls Toronto Hydro has in place to ensure that this type of error does not occur again in the future.

9-Staff-154

Ref: Exhibit 9 / Tab 1 / Schedule 1 / pp. 10-12

Preamble:

The variance recorded in the CRRVA that is not related to the depreciation error is \$20.8 million. This variance is related to the difference between the actual mix of capital programs and the forecasted and actual timing of capital assets entering service (Exhibit 9 / Tab 1 / Schedule 1 / p. 11).

Question(s):

- a) Please provide an estimate of the proportion (%) of the non-depreciation error related variance recorded in the CRRVA that was driven by in-service delays.
- b) Please provide detailed calculations or references to the approvals granted in the 2015-2019 rates proceeding supporting the following line items in Table 3 (Exhibit 9 / Tab 1 / Schedule 1 / p. 12):
 - i. Line 3 – Capital-related revenue requirement from February 29, 2016 rate order.
 - ii. Line 4 – Revenue requirement impact from the application of the stretch factor.
 - iii. Line 8 – Other adjustments.
 - iv. Line 10 – Actual historic and forecast bridge capital-related revenue requirement.
- c) With respect to adjustments for the amounts captured in the Externally Driven Capital Variance Account and the Derecognition Variance Account, please advise whether carrying charges have been included in the adjustment. If so, please explain why carrying charges should form part of the adjustment.

9-Staff-155

Ref: Exhibit 9 / Tab 1 / Schedule 1 / pp. 14-17

Question(s):

- a) Please explain why the Externally Driven Capital Variance Account is required going forward assuming the CRRVA is continued. Please confirm that the CRRVA, in its current form, captures the same variances.
- b) Please explain how the actual and forecast bridge capital in-service addition amounts shown in Table 5 (Exhibit 9 / Tab 1 / Schedule 1 / p. 15 / Line 2) were calculated.

9-Staff-156**Ref: Exhibit 9 / Tab 1 / Schedule 1 / pp. 17-18**

Preamble:

In Table 6 (Exhibit 9 / Tab 1 / Schedule 1 / p. 18), Toronto Hydro provided its calculation of the balance in the Derecognition Variance Account.

Question(s):

- a) Please explain why the Derecognition Variance Account is required going forward assuming the CRRVA is continued. Please confirm that the CRRVA, in its current form, captures the same variances.
- b) Please provide references to the approvals granted in the 2015-2019 rates proceeding supporting the losses on derecognition included in approved rates (Exhibit 9 / Tab 1 / Schedule 1 / p. 18 / Table 6 / Line 1).
- c) For the actual losses on derecognition (Exhibit 9 / Tab 1 / Schedule 1 / p. 18 / Table 6 / Line 2), please advise whether the amounts for each year can be tied to the audited financial statements. If so, provide the reference in the audited statements to where each balance can be found.
- d) Please explain the basis for the forecast losses on derecognition for 2018 and 2019 (Exhibit 9 / Tab 1 / Schedule 1 / p. 18 / Table 6 / Line 2).
- e) Please explain what the PILs component relates to and how it was calculated (Exhibit 9 / Tab 1 / Schedule 1 / p. 18 / Table 6 / Line 4).

9-Staff-157**Ref: Exhibit 9 / Tab 1 / Schedule 1 / pp. 20, 24**

Preamble:

Toronto Hydro notes that its Monthly Billing Deferral Account is intended to record the incremental costs and savings resulting from the mandatory transition to monthly billing. Toronto Hydro noted that it did not include any costs or savings with the mandatory transition in its 2015-2019 Custom IR application (Exhibit 9 / Tab 1 / Schedule / p. 20).

Question(s):

- a) Please explain, specifically, what variance is recorded in the account (e.g. is the account recording the incremental costs / savings of monthly billing relative to the amount built into rates for Toronto Hydro's existing billing-related activities based on bi-monthly billing). If so, please provide the amount built into rates for billing-related activities (considering the inflationary factor applied during the 2016-2019 period) and confirm that the variance recorded in the account is truly incremental to those costs.

9-Staff-158

Ref: Exhibit 9 / Tab 1 / Schedule 1 / p. 32

Preamble:

In Table 14, Toronto Hydro quantifies the variance associated with the forecast gains on the sale of property and the actual gains realized (Exhibit 9 / Tab 1 / Schedule 1 / p. 32).

Question(s):

- a) Please provide the detailed calculation for each of the actual net gain amounts presented in the table. Ensure that the calculation is broken down in sufficient detail to show the proceeds received, NBV of property at time of disposition, costs incurred on the transaction (and an explanation of the types of costs), the tax on the gain, and the gross up for PILs tax savings. In addition, please provide the forecasted net gain in a comparable format.
- b) Please explain whether Toronto Hydro intends to close the OCCP account. If not, please explain why the account is still necessary.

9-Staff-159

Ref: Exhibit 9 / Tab 1 / Schedule 1 / pp. 33-34

Preamble:

In Table 15, Toronto Hydro calculates its annual cash vs accrual differential related to its OPEB costs (Exhibit 9 / Tab 1 / Schedule 1 / p. 34).

Question(s):

- a) Please provide the reference to the evidence from the 2015-2019 rates proceeding where the approved amounts for the period 2015 to 2019 related to the Forecasted OPEB Costs (OM&A programs) can be found (Exhibit 9 / Tab 1 / Schedule 1 / p. 34 / Table 15 / Line 1). If there is no direct link in the evidence, please explain how these amounts have been determined.
- b) Please explain how Toronto Hydro is able to segregate the OPEBs that have been capitalized to assets for purposes of calculating the depreciation related to capitalized OPEBs costs. Please explain how this was quantified and why the resulting amounts are reasonable.
- c) Please advise whether the Estimated Capital Depreciation Collected For OPEBs (Exhibit 9 / Tab 1 / Schedule 1 / p. 34 / Table 15 / Line 2) represents the depreciation related to OPEBs that were capitalized in that particular year, or the depreciation associated with the YTD unamortized OPEB costs that have been capitalized to assets.
- d) Please advise whether the actual cash payments that were made in respect OPEBs for the period 2015-2019 can be tied to the Employee Future Benefits note of the audited financial statements. If not, please explain why and the source of these amounts.
- e) Please explain why Toronto Hydro is multiplying the variance (Difference (C) = (A)-(B)) by the OpEx/CapEx split (Exhibit 9 / Tab 1 / Schedule 1 / p. 34 / Table 15 / Line 7). Please confirm that the starting point is already the OPEB costs that were approved in OM&A. Please explain why applying the OpEx/CapEx split to that number would be appropriate.
- f) Please explain the basis of the forecast actual cash payments for 2018 and 2019 and why Toronto Hydro believes it to be a reasonable estimate.

9-Staff-160

Ref: Exhibit 9 / Tab 1 /Schedule 1 / pp. 36-37

Preamble:

Toronto Hydro explains that a credit refund due to ratepayers that has accumulated in Account 1551 as a result of a new Smart Metering Entity charge that the OEB had approved effective January 1, 2018 (Exhibit 9 / Tab 1 / Schedule 1 / pp. 36-37).

Question(s):

- a) Please advise whether the balance in this account was previously disposed as part of Toronto Hydro's 2019 rates proceeding (Exhibit 9 / Tab 1 / Schedule 1 / p. 37). If not, please advise if Toronto Hydro will be seeking disposition of the balance in this account as part of the current proceeding (as part of its application update).

9-Staff-161

Ref: Exhibit 9 / Tab 1 / Schedule 1 / p. 39
Exhibit 9 / Tab 3 / Schedule 1 / p. 1

Question(s):

- a) Please provide rationale supporting the proposed allocator for each DVA and the balances that are proposed for disposition that are not recorded in a DVA.

9-Staff-162

Ref: Exhibit 9 / Tab 1 / Schedule 1 / p. 40

Question(s):

- a) Please advise whether Toronto Hydro is seeking approval to maintain the Excess Expansion Deposits Variance Account for the 2020-2024 period (or if it is intended to only deal with variances that accrued during the 2016-2019 period).

9-Staff-163

Ref: Exhibit 9 / Tab 1 / Schedule 1 / p. 42
EB-2015-0040 / Report of the Ontario Energy Board on Regulatory Treatment of Pension and OPEB Costs

Preamble:

Toronto Hydro discusses the mechanics of the Pension and OPEB differential tracking account that was introduced by the OEB (EB-2015-0040 / Report of the Ontario Energy Board on Regulatory Treatment of Pension and OPEB costs). Toronto Hydro noted that in accordance with the report it is a generic account for which utilities will not have to submit an accounting order (Exhibit 9 / Tab 1 / Schedule 1 / p. 42).

Question(s):

- a) In its description outlining how the account operates, there is no indication provided by Toronto Hydro on how it intends to treat amounts that have accumulated within its Account 1508 – Other Regulatory Assets, Subaccount – OPEB Cash vs Accrual. If approved for disposition, the Report of the Ontario Energy Board on Regulatory Treatment of Pension and OPEB costs requires that balances within this account be transferred to the new differential tracking account as they are being recovered from ratepayers. Please confirm that Toronto Hydro intends to follow the guidance provided in the noted report.

9-Staff-164

Ref: Updated Evidence / EB-2014-0116 Approved Accounting Orders / pp. 8-9

Question(s):

- a) Please explain the status of the Variance Account for 2015 Opening Rate Base to Capture Prudence-Based ICM Disallowances. Specifically, advise whether this account was ever disposed and whether it has been or should be closed.

9-Staff-165

Ref: Exhibit 9 / Tab 2 / Schedule 1

Preamble:

Toronto Hydro has filed an incomplete version of the OEB issued DVA continuity schedule.

Question(s):

- a) Please confirm that it is Toronto Hydro's intention to file a completed version of the latest OEB issued DVA continuity schedule, which can be accessed on the OEB's website (released July 12, 2018), as part of its application update.