EB-2019-0261

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

AND IN THE MATTER OF an Application by Hydro Ottawa Limited to the Ontario Energy Board for an Order or Orders approving or fixing just and reasonable rates and other charges for the distribution of electricity effective January 1, 2021.

HYDRO OTTAWA LIMITED
CUSTOM INCENTIVE RATE-SETTING APPLICATION FOR 2021-2025 DISTRIBUTION RATES AND CHARGES

ENERGY PROBE

INTERROGATORIES TO HYDRO OTTAWA

May 11, 2020

CUSTOM IR PLAN

1-EP-1
References: Exhibit 1, Tab 1, Sch. 10; OEB Handbook of Utility Rate Applications, October 13, 2016, page 26

Preamble: *"The index must be informed by an analysis of the trade-offs between capital and operating costs, which may be presented through a five-year forecast of operating and capital costs and volumes. If a five-year forecast is provided, it is to be used to inform the derivation of the custom index, not solely to set rates on the basis of multi-year cost of service. An application containing a proposed custom index which lacks the required supporting empirical information may be considered to be incomplete and not processed until that information is provided."*

a) Please confirm that Hydro Ottawa's five-year forecast of capital expenditures is used to set rates on a multi-year basis. Please explain your answer.

b) Please confirm that Hydro Ottawa's five year forecast of capital expenditures has not been used to inform the derivation of a custom index. Please explain your answer.

c) Please explain how Hydro Ottawa's proposed Custom Incentive Regulation plan provides incentives for the containment of capital and OM&A expenditures?

d) Please explain how Hydro Ottawa's proposed Custom IR plan differs from multi-year cost of service.

e) Please explain how Hydro Ottawa's Custom IR plan addresses trade-offs between capital and operating costs.

1-EP-2
Reference: Exhibit 1, Tab 1, Sch. 10, page 20

a) Did Hydro Ottawa seek OEB approval for a growth factor G in its previous Custom IR application, EB-2015-0004? If the answer is no, please explain why not. If the answer is yes, please explain what has changed that would make a growth factor necessary now?

b) Please explain how the OEB can be confident that the use of the growth factor G does not result in double recovery of customer related capital and OM&A costs.

1-EP-3
Reference: Exhibit 1, Tab 1, Sch. 10, page 13

Preamble: *After an analysis of both historical and forecast operations, maintenance and administration ("OM&A") expenditure data over the 2016-2020 period, Hydro Ottawa h as*

determined that a unique labour/non-labour weighting of 55.5% labour and 44.5% n on-labour is appropriate.

a) Please explain why the labour/non-labour weighing for Hydro Ottawa is different than the weighing for other electricity distributors in Ontario?

b) Is Ottawa's labour/non labour weighting same for Capital and OM&A expenditures? If the answer is yes, please explain why that is the case. If the answer is no, please provide the labour/non-labour weighing for each one.

1-EP-4
Reference: Exhibit 1, Tab 1, Schedule 10, Section 4.4.3

Preamble: Hydro Ottawa has incorporated a growth factor (g) into its proposed OM&A adjustment formula, $CPEF = I - \left(X + stretch_{factor}\right) + g$

a) Has Hydro Ottawa consulted with Clearspring Energy Associates on appropriate growth factors? If so, provide the CEA opinion view(s).

b) Please confirm the customer growth rate 2012-2020 (Table 7)

c) Please provide the growth in OM&A/customer 2015-2020 and calculate the implicit growth factor and AGCR.

d) Please confirm that Hydro Ottawa proposes a g-factor of 0.40%, for OM&A for the CIR Plan.

e) Please confirm the capital portion of costs is not included in the growth factor.

f) Please provide examples where the capital has been included in the growth factor.

g) Please calculate the historic growth in capital/customer and provide an estimate a capital additions growth factor.

h) Please blend this with the OM&A g-factor to produce a composite g-factor

1-EP-5
Reference: Exhibit 1, Tab 1, Schedule 10, Section 4.4 ESM

Please provide examples of other ESMs that have been approved, including Hydro Ottawa:
- By the OEB
- In other Canadian jurisdictions
  Provide dates and references as appropriate.

FINANCIAL PERFORMANCE

1-EP-6
Reference: Exhibit 1, Tab 1, Schedule 10, Attachment A

a) Please provide Hydro Ottawa actual ROE and comparison to the OEB allowed ROE for 2015-2019.

b) Please provide the Actual Debt/Equity Ratios for 2015-2019.

c) Please provide the Dividends paid to the City of Ottawa 2015-2019.

COST BENCHMARKING

1-EP-7
Reference: Exhibit 1, Tab 1, Schedule 12, Attachment A; EB-2015-0004, Exhibit D-1-5 Attachment

Preamble: Comparison of 2014 and 2019 Study Samples

a) Please provide a tabular comparison of the 2014 and 2019 study samples.

b) Please list/highlight/explain the material changes to the sample of US utilities in the current study sample.

c) Please confirm the Hydro One data is for Distribution only.

d) Please provide for the listed Ontario Utilities:
- How many years data are available/used for each (TC and Reliability)?
- What is the OEB/PEG Cohort positioning for each (include historic and latest)?

e) Given over 5 years of Ontario data, why were the specific utilities selected and why was a larger Ontario Sample not used? Please discuss/explain.

1-EP-8
Reference: Exhibit 1, Tab 1, Schedule 12, Attachment A, Original; EB-2015-0004 Ex D-1-5 Attachment

Preamble: EP wishes to understand better the 2019 Clearspring EA Econometric Model at a similar level of detail and a comparison to that provided in the PSE Ottawa Hydro 2015 Report and Evidence.

a) Please provide the full Clearspring EA Econometric Model specification and formulation in reasonable detail with explanatory notes.

b) Please provide additional information as to how the T-statistic for the Explanatory Variables was calculated and the significance of each of the Statistics.

c) Please provide more information on the Trend, Constant, Coefficients and the calculation of the adjusted R-Squared.

d) Please provide a Comparison Table with the PSE 2015 Model/Report Table 3-1 and the 2019 Model/Report Table 6. List, discuss the rationale for and indicate directionally impact on relative TC score, resulting from each of the changes to the Explanatory Variables, including specifically addition of the Congested Urban and Ontario Binary variables and elimination of Capital Price and Density.

e) Please describe/provide the Hydro Ottawa data set (Section 2.3.3 Other Business Condition Variables) for each of the variables underlying each of the coefficients and projections corresponding to the results presented in Table 6.

f) How did Clearspring EA determine the appropriate Coefficient for each cost variable? Please provide details of the methods.

g) Why is there no Underground Plant variable in the TC model like other models (e.g.Toronto Hydro) and in the Reliability Econometric Model?

h) Why are CU*CU and RD*RD given quadratic functions?

i) Is the structure/formulation of the Clearspring EA Model "standard" and used for other utilities (such as Toronto Hydro and other examples) or "custom" for Ottawa Hydro? Please explain in terms of similarities and differences in the Model specifications and variables to prior models used in Ontario (e.g. Toronto Hydro and Hydro One).

1-EP-9
Reference: Exhibit 1, Tab 1, Schedule 12, Attachment A, Original; EB-2015-0004 Ex D-1-5 Attach

Preamble: *Additionally, for future years we can take Hydro Ottawa's cost projections through 2025, allowing us to also benchmark those forecasts "out of sample." We use the model (which is based on historical data) and apply the estimated coefficients and projected independent variable values for Hydro Ottawa to calculate a predicted benchmark value. This predicted benchmark value is then compared to Hydro Ottawa's projected total cost amount.*

a) With reference to the TC projections provided in Table 3-3 and Figure 1-1 of the 2015 Report, please provide a comparison in graphical form to:
    - Actual Total Costs to 2018 and the projection for 2019 and

- The current historic and projection in Table 1 and Figure 1 in the 2019 Report

b) Comment on the differences and if these relate to:
   - Changes to the Peer group
   - Performance of the peer group (industry TC/productivity)
   - or OH performance/productivity

c) Please discuss in detail why, based on the latest model results, (Table 7) for the period 2019-2025 OH is 7.1% lower in TC relative to the peer group, even though its actual costs are similar to those projected in the 2015 Report for the 2015-2020 IRM period.

d) What is the actual Hydro Ottawa TC score for 2019?

e) Why does the Hydro Ottawa TC score improve 2019-2025?

f) Please provide a discussion regarding what the models indicate regarding trends in industry Total Cost and TFP since 2006 and projections for the next 5 years.

1-EP-10
Reference: Exhibit 1, Tab 1, Schedule 12, Attachment A, Page 33

Preamble: In the 2015 PSE Report Mr. Fenrick concluded:
Question 3: Are the proposed spending levels during the Custom IR period reasonable from a benchmarking perspective and what stretch factor do the proposed spending levels indicate?
The Hydro Ottawa Custom IR spending projections still indicate a strong total cost performance benchmark outcome. In the 2016 test year, Hydro Ottawa's total cost performance is 18.2% below the benchmark. By 2020, the projections indicate total cost performance will be 13.9% below the benchmark. Hydro Ottawa's Custom IR total cost performance remains statistically superior at the 90% confidence level. ***These results indicate a stretch factor of 0.15% based on the 4th Generation IR stretch factor criteria.***
The corresponding 2019 Report Conclusion is:
Our total cost study findings for Hydro Ottawa show that during the Custom IR period, the Company's total cost benchmarking score is -7.1%. Based on the 4th Generation IR stretch factors, this suggests a stretch factor of 0.30%. The reliability benchmarking results provide no evidence that Hydro Ottawa is producing this better than average cost performance at the expense of reliability outcomes. Therefore, ***Clearspring Energy's recommended stretch factor for Hydro Ottawa's Custom IR application is 0.30%****.*

a) Please confirm that the 2019 study shows Hydro Ottawa total cost is 7.1 %, so the stretch factor indicated is 0.3%.

b) If Hydro Ottawa Total cost was 13.9% below benchmark in 2020 (as per 2015 study) what would be the recommended stretch factor.

c) Hydro Ottawa requested the two additional Scenarios with the large Capital projects removed. Discuss specifically how this change relates to the CEA recommended Stretch Factor(s).

1-EP-11
References: Exhibit 1, Tab 1, Schedule 12, Attachment A; Exhibit 1, Tab 1, Schedule 12, Attachment E, PEG Cost Benchmarking

Preamble: *For the reasons outlined above, Hydro Ottawa respectfully submits that, relative to the PEG model, the study prepared by Clearspring is better-suited to providing an accurate, effective assessment of Hydro Ottawa's efficiency. Clearspring's analysis is therefore an appropriate tool for evaluating the utility's total cost benchmarking performance and assigning the utility a stretch factor in the context of this Application.*

a) Please compare the Clearspring EA Report Input Parameters listed and in particular Ontario Sample, to those in the current PEG Report (when filed). Discuss the differences and indicate the impact on the relative TC score directionally.

b) Please provide a tabulation of the Hydro Ottawa data set (including 2018-2024 projections) and provide sources and explanations for each of the values.

c) For CSI/CDM costs please provide a Table that shows for the sample the amounts eliminated for each and as a percentage of cost.

d) Please explain detail why PSEs result shows Hydro Ottawa Total Costs are 7.1% below the Clearspring EA Benchmark compared to the referenced PEG Benchmark showing Toronto Hydro Cost Performance is ~21.5 % of peer group that is above.

e) Please discuss which result (PEG or PSE) should ratepayers and the OEB use in setting the CIR rate plan and the X/stretch factor and list all of the reasons why the Board should adopt the PSE recommendation.

ECONOMETRIC RELIABILITY MODEL

1-EP-12
Reference: Exhibit 1, Tab 1, Schedule 12, Attachment A, Page 28ff, Table 11, Figure 5: EB-2015-0004, Exhibit D, Tab 1, Schedule 5
Preamble: Clearspring EA States: *We find that Hydro Ottawa's most recent 3-year (2016 to 2018) SAIFI value is 11.3% above the benchmark value. The most recent 3-year CAIDI value is 13.7% below the benchmark value.*

a) Please explain in detail the reasons for the change from SAIFI and SAIDI reliability modelling to SAIFI and CAIDI. Comment specifically relative to OEB System reliability reporting requirements.

b) Please provide the full specification/details of 2019 Clearspring EA Reliability Econometric Model including the Hydro Ottawa input values for variables and the coefficients.

c) Please provide a comparison summary table with the 2015 Model.

d) Please confirm the definition(s) used for CAIDI dataset. Compare to the SAIDI and SAIFI definitions in the 2015 PSE Report.

1-EP-13

Reference: Exhibit 1, Tab 1, Schedule 12, Attachment A, Page 28ff , Table 11, Figure 5; EB-2015-0004, Exhibit D, Tab 1, Schedule 5

Preamble: The 2015 Report indicates

3. The company's SAIFI for their 2012-2014 average is 25.6% above benchmark expectations. This implies Hydro Ottawa customers experience 25.6% more outages versus what the models predict. This result, in conjunction with the total cost result of lowcost performance, is suggestive of an aged infrastructure.

4. The company's SAIDI for their 2012-2014 average is 7.2% above benchmark expectations. This implies Hydro Ottawa customers experience 7.2% more outage minutes versus what the models predict. This is because of the higher than expected SAIFI value discussed in the prior conclusion.

a) With reference to the Reliability (SAIDI/SAIFI) projections provided in Table 4-4 and Figures 4-3 and 4-4 of the 2015 Report please provide a yearly comparison to the current data in the 2019 Report.

b) Please comment on the differences and if/how these relate to the peer group changes or Hydro Ottawa

c) Please provide Reliability projections using the model and Hydro Ottawa data in the current evidence, for the 2018-2024 forecast period. Please explain the approach and methodology in reasonable detail. Specifically indicate how regression of historic data is used to generate the projections.

d) Please provide a discussion if the models show Hydro Ottawa Reliability is/is not improving as shown for each indicator:
- For the Industry Peer group sample
- For Hydro Ottawa (given the increase in capital investment).

1-EP-14

Reference: Exhibit 1, Tab 1, Schedule 12, Attachment E, PEG Cost Benchmarking

a) What does the right-hand column in Attachment E indicate? Please label/correct.

b) Please provide a tabular and graphical comparison of Hydro Ottawa costs as determined by Clearspring EA to the actual and predicted costs in the referenced PEG exhibit.

c) Please discuss the material differences between the two cost benchmarks.

d) What does the PEG Cost Benchmark suggest for Hydro Ottawa's Stretch factor?

e) Why should the OEB accept the Clearspring EA benchmark rather than the PEG Benchmark? Add to the reasons in the evidence, including if the PEG 4GIRM benchmark is flawed, or out of date.

1-EP-15
Reference: Exhibit 1, Tab 1, Schedule 12, Attachment B, UMS Benchmark Study, Table II-1

a) Please confirm the adjustments for external factors for Hydro Ottawa are minimal i.e. Hydro Ottawa is at the median (Table C-6: Full-Scale Normalization Factors by Domain and Operating Environment).

b) Please explain why Pole Testing unit costs ($43) are in the lower quartile, if lower cost labour was used relative to the 70:30 Labor and Non-Labor Cost Split (Table C-1).

c) Please provide the range of costs and median for the peer group.

d) Please provide details of the Pole Testing calculation, and in particular compare the labour rate to that for other utilities.

e) What recommendation does UMS make to Hydro Ottawa in order to bring Hydro Ottawa Pole Testing costs in line with other utilities?

f) Two programs (Billing-Online and Meter Maintenance) match the Peer Group Median (i.e. straddle second and third quartiles).

- With regard to Billing On-line please explain why the chart shows relative costs in both the 2nd and 3rd quartile please explain why not use ***median*** for where the OH $0.25 cost lies.

- With regard to Meter Maintenance please explain why the chart shows relative costs in both the 2nd and 3rd quartiles please explain why not use ***median*** for where the OH $173 cost lies.

1-EP-16
Reference: Exhibit 1, Tab 1, Schedule 12, Attachment C, Table 1; Exhibit 1, Tab 1, Schedule 12, Attachment D

Preamble: Note that a downward trend indicates performance improvement for the following four measures: Number of General Public Safety Incidents, Rate per 1000 km of line, Average Number of Hours that Power to a Customer is Interrupted, and Average Number of Times that Power to a Customer is Interrupted.

a) Please provide the Hydro Ottawa SAIDI and SAIFI Data for the past 10 years (up to 2019) in tabular and graphical format.

b) Please provide the targets for 2020-2025.

c) Why has reliability not improved during the prior CIR Plan? Please discuss.

d) Please provide the 2015 and 2018 Cause Code charts. Compare and discuss main changes to Attachment D, Figures 8 and 9.

1-EP-17
Reference: Exhibit 1, Tab 1, Schedule 12, Attachment C

a) Please provide Figure 2 page 7 with the Hydro Ottawa data from Table 4 included, then update for 2018 and 2019.

b) Please update Figures 14 and 16 for 2018 and 2019 for provincial averages if possible, if not then for Hydro Ottawa.

1-EP-18
Reference: Exhibit 1, Tab 1, Schedule 12, Attachment C, Figures 19 and 20

a) Please update Figure 19 for 2019 for peer group if possible, if not for Hydro Ottawa.

b) Please update Figure 20 for 2019 for peer group if possible, if not for Hydro Ottawa.

1-EP-19
Reference: Exhibit 1, Tab 1, Schedule 12, Attachment F, Gartner Report, page 11

Preamble: *Hydro Ottawa has a lower ratio of IT full time equivalent staff (FTEs) as a percentage of company employees compared to the peer group average at 8.4% versus 10.1%. – Hydro Ottawa reported a higher allocation to outsourcing and managed services compared to the peer group average. The benchmark does not convert managed services contracts to an adjusted IT FTE. As a result, organizations using more managed services than a peer group using more in-house or staff augmentation will have a lower IT FTE per company employee ratio.*

a) Please explain in more detail how this finding affects Hydro Ottawa Ranking/score to the peer group.

b) Do outsourced Contractors use their own IT resources?

c) Specifically provide/compare the IT costs per user (including in-house contractors) and per employee.

d) Please confirm the Gartner Benchmark year is 2018.

e) Please provide the Hydro Ottawa IT costs for 2015-2020 in the 4 categories of Gartner benchmarking chart of accounts. Provide historic and test forecast to actuals Capital and O&M as reported in the OH evidence.

f) Please provide the Hydro Ottawa IT Cost projections for 2021-2025 in both the Gartner benchmarking chart of accounts format and as Capital, O&M and FTEs.

1-EP-20
Reference: Exhibit 1, Tab 1, Schedule 12, Attachment G, Mercer Benchmark

Please file the previous Hydro Ottawa Mercer Compensation Benchmark Report filed with the Board (reference case and Exhibit number).

1-EP-21
Reference: Exhibit 1, Tab 1, Schedule 12, Attachment G, Mercer Benchmark Page 3

Preamble: MEARIE survey data is effective 2016, 2017, 2018 and 2019 and has been aged by a total of 8.00%, 5.06%, 2.8% and 0% respectively to reflect the annual median salary increases since 2017 (as reported in Mercer's *Compensation Planning Surveys).*

a) Please list positions that are based on MEARIE data.

b) Please provide the Mercer Compensation Planning Results for 2016-2019 corresponding to the aging percentages.

c) Why are the indicated aging percentages materially above inflation in 2016-2018?

1-EP-22
Reference: Exhibit 1, Tab 1, Schedule 12, Attachment G, Mercer Benchmark Comparison, Pages 6-7

a) Please indicate why MEARIE Positions have no data under Total Cash Compensation?

b) Please explain if this deficiency may result in some positions having greater Total Compensation than the peer group.

c) Please list all positions with a Total Cash Compensation 10% greater than P50. Separate into front and back office positions.

d) Please discuss the reasons why each of these positions are compensated above P50+10%

1-EP-23
Reference: No Reference

a) Does Hydro Ottawa have a Total Compensation benchmark comparison for Senior Executive positions?

b) If so please file this. If not, please explain how ratepayers can be satisfied that Hydro Ottawa Executive Compensation is reasonable.

1-EP-24
Reference: Exhibit 1, Tab 1, Schedule 13, page 4; Exhibit 4 -1-1.

Preamble: *Custom IR Framework The Custom Price Escalation Factor utilized in this Application will embed productivity savings for customers by capping any increases to operational funding. The productivity escalator that has been applied to OM&A expenditure levels for 2022-2025 is 2.51%. As a result, OM&A spending was reduced by approximately $ 13.1 million over the term of the Custom IR rate plan. (For more details on projected O M&A expenditures for the upcoming five-year rate term, please see Exhibit 4 -1-1: Operations, Maintenance and Administration Summary).*

a) Please provide a Table with more details of the $13.1 million in productivity savings.

b) Please reconcile to the $13.1 million.

c) Please confirm the OM&A escalator includes a growth factor. Provide more information how this applied.

CUSTOMER SATISFACTION

1-EP-25
Reference: Exhibit 1, Tab 2, Schedule 1, Attachment C, Customer Satisfaction Survey

Preamble: 54% of Hydro Ottawa customers indicated they had experienced a Power Outage compared to 49% national and 44% Ontario.

a) Please indicate the background information provided to respondents.

b) Please indicate if the 2018 MEDs were discussed and therefore this is why the high response occurred.

c) Please comment on the difference to the response to the question on reliability (page 16-92%).

1-EP-26
Reference: Exhibit 1, Tab 2, Schedule 1, Attachment E, Innovative Reliability & Power Quality

a) Please provide the comparable results from 2015 for the two questions.

- In the past 12 months, how many power outages do you recall experiencing at home? [asked of all respondents, Hydro Ottawa; n=450]

- Please indicate how satisfied you are with the way that Hydro Ottawa is performing on each of the following attributes related to your electrical service. Please use the scale from 0 to 10, where 0 means very dissatisfied and 10 means very satisfied. [asked of all respondents who experienced outages, Hydro Ottawa; n=390]

b) Please comment on possible reasons for the differences e.g. recollection higher/lower, decrease in reliability, recent major event days

1-EP-27
Reference: Exhibit 1, Tab 2, Schedule 1, Attachment E, Innovative Reliability& Power Quality pages75 and 76

a) Were the respondents given any information or examples of technology prior to the question?

b) Please discuss why technology to improve reliability ranks first, when respondents indicated reliability is satisfactory in earlier questions.

1-EP-28
References: Exhibit 1, Tab 2, Schedule 2, Attachment A, Innovative Phase II, Pages 5-7; Exhibit 1, Tab 2, Schedule 2, Attachment A, Page 27, 1.6 Appendices

a) Please clarify and provide a copy of the information provided to respondents on the OH Distribution System Plan.

b) Prior to responding to the Pacing of Investment questions were respondents given information on the underground and overhead parts of the distribution plant? If so provide this information (such as that in second reference).

c) If not discuss how respondents distinguished underground and overhead assets and accelerated investment in each.

d) How was "serving a growing city" defined for respondents? Please expand on definition provided to respondents.

e) Discuss why respondents are split on reliability investments e.g. not understanding question or couldn't decide between options, etc.

1-EP-29
Reference: Exhibit 1, Tab 3, Schedule 1, Attachment A, Financial Statements

Please provide the 2018 audited and 2019 unaudited Financial Statements

RATE BASE

2-EP-1
Reference: Exhibit 2, Tab 1, Sch. 1, page 12

a) Please provide detail explanations for the $60.6 variance caused by the expenditures in the construction of the three substation projects. For each project please file a table that shows the approved estimates and the actual expenditures showing amounts for materials, labour, overheads, and interest during construction with variance explanations for each amount.

b) Does Hydro Ottawa expect the OEB to conduct a prudence review of the $60.6 million variance? If the answer is no, please explain why not.

2-EP-2
References: Exhibit 2, Tab 4, Sch. 3, Table 8.30, page 329, and page 332; Exhibit 2, Tab 4, Sch. 3, Att. F, Pages 6 and 7

a) Please provide a list of Fleet vehicles purchased each year from 2016 to 2020.

b) Please provide the number of Fleet vehicles in service at the start of 2016 and at the year end of each year from 2016 to 2020.

c) Please provide a detail explanation of Fleet variances for each year from 2016 to 2020 shown in Exhibit 2, Tab 4, Sch. 3, page 329, Table 8.30.

d) Does Hydro Ottawa own all its Fleet vehicles? If the answer is yes, has Hydro Ottawa considered leasing some or all of its vehicles. If the answer is no, what proportion of Fleet vehicles are leased?

DISTRIBUTION SYSTEM PLAN

2-EP-3
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, page 2

Preamble: *There are currently 7 transformers operating beyond their expected service life of 55 years; this will increase to 62 transformers by the end of 2025 if no transformers are replaced under this program.*

a) If Hydro Ottawa proceeds with its proposed station transformer replacement program, how many transformers will be beyond their expected service life of 55 years by the end of 2025.

b) Is the 55 year expected service life of a transformer based on industry standard or is it based on historical data on service lives of Hydro Ottawa transformers? If it is not based on Hydro Ottawa historical information, what is the expected service life of transformers based on Hydro Ottawa information?

c) Does Hydro Ottawa have only one type of station transformer in service from one manufacturer? If the answer is no, please list the types of station transformers that Hydro Ottawa has in service with the number of each type and the expected service life for each type. If there are differences in service life between manufacturers, please list them.

d) Is the age of the transformer the primary justification for a planned replacement? Please explain your answer.

2-EP-4
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.2, page 5 and Table 1.6, page 12

Preamble: *The station transformer renewal program will enable Hydro Ottawa to reduce transformer failures by replacing high-risk transformers before they fail. This will manage transformer failure risk to an acceptable level, and maintain low failure rates to meet customer expectations for reliability.*

Why is Hydro Ottawa's target to "Maintain SAIFI and SAIDI" and not to improve them?

2-EP-5
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Figure 1.3, page 7

Preamble: Figure 1.3 Station Transformer Failure Rate per Planned Replacement Level covers a period from 2018 to 2066.

a) Why was this period selected?

b) How many stations transformers does Hydro Ottawa have now and how many does it expect to have in 2066?

c) What is the accounting depreciation rate for station transformers?

d) Are the failure rates for 2018 and 2019 actual failure rates? If the answer is no please explain why?

e) Please file a figure similar to Figure 1.3 that shows the historical failure rates for Hydro Ottawa station transformers for the 20 years prior to 2018 or for as many years as there are records.

2-EP-6
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, page 8

Preamble: *Unplanned replacements are usually carried out by Hydro Ottawa's own crews, whereas planned replacements can be performed by both internal and external resources. The preferred alternative will lead to more planned renewal projects, where appropriate staffing resources can be allocated, rather than unplanned renewal projects that would take resources away from other work.*

a) In Hydro Ottawa's experience with station transformer replacement projects what is the cost difference between using external resources instead of Hydro Ottawa's own crews?

b) Is the objective to have appropriate staffing levels a significant reason to avoid unplanned station transformer replacements?

2-EP-7
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.8, page 16

Please break down the $2.36 million cost estimate into the following components: materials, labour, overhead and interest during construction.

2-EP-8
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.9, page 19

Preamble: *As shown in Figure 1.6, Figure 1.7, Figure 1.8, and Figure 1.9 below, 560 of Hydro Ottawa's station breakers are operating at or past their expected operating life. By 2025, the*

number of station breakers that will be at or past their expected life will increase to 561 if no planned replacements are made.

a) Please compare Hydro Ottawa's actual historical life of each of the four types of breakers with industry provided probabilities of failure listed in Table 1.9.

b) Please define the term "expected life" and explain what percentage of circuit breakers would fail when expected life is reached?

c) Please provide Hydro Ottawa's accounting depreciation rate for each type of breaker listed in Table 1.9.

d) If 560 station breakers are currently operating at or past their expected operating life and 561 will be operating at or past their expected life in 2025 if no replacements are made, does that mean that only one additional circuit breaker will reach its expected life between 2020 and 2025?

2-EP-9
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Figure 1.6, page 20

a) Does the information in Figure 1.6 indicate that a majority of Hydro Ottawa's station oil breakers have exceeded the industry predicted expected life? If the answer is yes, does that mean that the industry predicted expected life may need to be revised? If the answer is no, please explain your answer.

b) Is circuit breaker age the main criteria for replacement?

2-EP-10
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Figure 1.13, page 27

a) Please file a figure similar to Figure 1.33 that shows the historical failure rates for Hydro Ottawa circuit breakers for the 20 years prior to 2018 or for as many years as there are records.

b) Figure 1.13 implies a certain accuracy in forecasting. Please explain the reason for the sharp reduction in the number of circuit breaker failures in 2053 for the preferred alternative of 13 assets/year scenario.

2-EP-11
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.11, page 30

a) Are all switchgear replacement units identical? If the answer is no, please list different types of switchgear replacement units with the cost of each type.

b) Please explain the disconnect between annual program costs and the number of switchgear replacement units.

2-EP-12
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, page 33

Preamble: *This graph was made with the assumption that all breakers have an expected life of 42 years, regardless of their type.*

a) Are all types of breakers fully depreciated after 42 years?

b) What is Hydro Ottawa's accounting treatment for retirement of breakers that are not fully depreciated?

2-EP-13
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.16, page 36

Please break down the $6.7 million cost estimate into the following components: materials, labour, overhead and interest during construction.

2-EP-14
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Figure 1.16, page 40

a) Please confirm that Figure 1.16 indicates that electromechanical relays have hasted much longer than expected.

b) Are electromechanical relays fully depreciated at the expected life of 40 years?

2-EP-15
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.19, page 45

Please explain the disconnect between annual program costs and the number of P&C relay replacement units.

2-EP-16
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.31, page 69

Please break down the $33.4 million cost estimate into the following components: materials, labour, overhead and interest during construction.

2-EP-17
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, pages 76 and 77

Preamble:
Hydro Ottawa has considered the following scenarios:
● *Only reactively replace poles that have failed;*
● *Reactively replace poles that have failed with the proactive planned replacement of 400 poles on a like-for-like basis;*
● *Reactively replace poles that have failed with the proactive planned replacement of 700 poles on a like-for-like basis;*
● *Reactively replace poles that have failed with the proactive planned replacement of 850 poles on a like-for-like basis.*

a) Has Hydro Ottawa carried out a discounted cash flow analysis of the four pole replacement scenarios? If the answer is yes, please file it. If the answer is no, please explain why not.

b) Was the impact on SAIFI considered in the selection of the preferred scenario? If the answer is yes, please file the estimated impact on SAIFI that was considered. If the answer is no, please explain why not.

2-EP-18
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.35, page 80

Please expand the Planned Pole Renewal Table 1.35 by breaking down the annual expenditure line into capital, labour, overheads, and interest during construction, and by showing the cost per unit for each year.

2-EP-19
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.42, page 94

Please expand the Overhead Switch Renewal Table 1.42 by breaking down the annual expenditure line into capital, labour, overheads, and interest during construction, and by showing the cost per unit for each year.

2-EP-20
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.52, page 110

Please provide a table that breaks down the Vault Renewal $2,479,899 cost estimate into the following elements: capital, labour, overheads, and interest during construction for each year. Please show how many vaults are being renewed each year.

2-EP-21
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.60, page 112

a) Please explain how Hydro Ottawa determined that the expected service life of a cable chamber is 52 years.

b) Are all cable chambers identical and do they all have the same expected service life?

2-EP-22
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.60, page 123

Please provide break down the Civil Renewal $5,050,351 cost estimate into the following components: capital, labour, overhead, and interest during construction.

2-EP-23
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Figure 1.50, page 133

Why do failure rates for three scenarios decline between 2055 and 2063 and then start increasing?

2-EP-24
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Figure 1.51, page 134

a) Please explain the reason for the sharp reduction followed by a sharp increase in the number of failures in 2066.

b) Please file a figure similar to Figure 1.51 that shows the Hydro Ottawa historical underground cable failure rates for all types of cables for the 20 years prior to 2018 or for as many years as there are records.

2-EP-25
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.65, page 138

Please file Table 1.65 with the $ cost/ km line added.

2-EP-26
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.68, page 143

Please provide a table that breaks down the Underground Cable Replacement $44,413,624 cost estimate into the following components: capital, labour, overhead, and interest during construction.

2-EP-27
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, page 150

Preamble: *The main driver for this program is to replace assets that are at the end of their service life. The secondary drive for this program is reliability.*

Does reliability decrease linearly with the length of service or is there a sharp drop in reliability at the end of service life?

2-EP-28
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.80, page 165, and Table 1.81, page 166

Please explain why the Emergency Renewal Program and the Critical Renewal Program have no O&M costs if "the asset is repaired, refurbished, or replaced" as stated in Tables 1.80 and 1.81.

Please provide a table that breaks down the Emergency Renewal Program $4,482,000 cost estimate and the Critical Renewal Program $4,297,000 cost estimate into the following components: capital, labour, overhead, and interest during construction.

2-EP-29
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, page 195

Preamble: *Conversely, the do nothing option would cost $324,490 per year in maintenance costs and continue to tie up technician time in meter maintenance.*
Additionally, Hydro Ottawa will continue to pay $264K per year to operate the phone lines, have meters with limited outage management capabilities and customer functions.

Are the $324,490 per year and the $264K per year savings in O&M that will accrue to the shareholder? Please explain your answer.

2-EP-30
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.107, page 198

Will the write-offs in 2021 and 2022 be expensed or charged against accumulated depreciation?

2-EP-31
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.110, page 205
Preamble: *Finally, this project will permanently reduce inventory overhead one-time by $ 263K.*

Is inventory part of Working Capital or some other component of Rate Base and will this project reduce Rate Base by $263K?

2-EP-32
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 1.111, page 206

a) Please convert the labour hours into labour costs.

b) Are labour costs Capital or O&M costs?

2-EP-33
References: Exhibit 2, Tab 4, Sch. 3, Att. E, page 206 and Table 1.112, Page 208

Please reconcile the 33,330 Rex 1 meters mentioned in the Project Scope on Page 206 with the 6,600 units per year from 2021 to 2025 shown in Table 1.112 on page 208.

2-EP-34
References: Exhibit 2, Tab 4, Sch. 3, Att. E, Page 209
Preamble: *The primary risk to project completion is a shortage of labour due to the prioritization of reactive maintenance work or other capital work. To mitigate this risk, Hydro Ottawa can distribute the work to an independent contractor.*

a) How does Hydro Ottawa decide which work would be done by an independent contractor?

b) Is all work that is done by independent contractor tendered?

c) Please provide a cost comparison between Hydro Ottawa's hourly fully burdened labour costs and the labour costs charged by independent contractors to Hydro Ottawa.

2-EP-35
References: Exhibit 2, Tab 4, Sch. 3, Att. E, Page 216

Please provide a table that lists all projects with cost estimates in the Distribution System Plan where the main driver is System Standardization. Please calculate the total cost and provide it.

2-EP-36
References: Exhibit 2, Tab 4, Sch. 3, Att. E, Page 218, and Exhibit 3, Tab 1, Schedule 1, Table 2, Page 3.

Preamble: *The prioritized projects under the Station Capacity Upgrades Program alleviate short to long term capacity constraints within Hydro Ottawa's distribution system.*

Please reconcile need for the Station Capacity Upgrades Program with the forecast of load growth shown in Exhibit 3, Tab 1, Schedule 1, Table 2.

2-EP-37
References: Exhibit 2, Tab 4, Sch. 3, Att. E, Table 2.1, Page 220

Please provide an estimate of the improvement in SAIFI/SAIDI that the proposed System Service projects are expected to achieve together with the total cost of all proposed System Service projects that will be needed to achieve this improvement.

2-EP-38
References: Exhibit 2, Tab 4, Sch. 3, Att. E, page 344, and Table 2.53, page 348, and Table 2.55, page 352, and Exhibit 2, Tab 4, Sch. 3, Att. E, 2.3.3, Updated, pages 1 and 2

Preamble: *The Smart Grid Fund Initiatives program is designed to provide a funding stream for a portfolio of innovation initiatives. These innovation initiatives will provide for the enhancement of tools, technologies, training, or processes in a system operating context that are core to Hydro Ottawa operations and effectiveness. In addition to having a continued internal funding mechanism, Hydro Ottawa will pursue external innovation funding sources such as provincial and federal governments and non-government organizations (e.g Natural Resources Canada, Ontario Ministry of Energy or Independent Electricity System Operator of Ontario).*

The Smart Energy Roadmap, is the integrated "whole of company" plan to achieve Hydro Ottawa's Smart Energy vision. This vision is articulated in the company's Strategic Direction 2016-2020, which also offers the following definition of "smart energy": "an energy system that makes effective u se of available technologies to maximize consumer, community and environmental benefit. It is sustainable, customer-centric, reliable, cost-effective, secure, and constantly evolving.

a) Is there a possibility that provincial and federal governments would provide funding for some or all of the cost? If the answer is yes, would it be treated as a capital contribution?

b) Please confirm that Hydro Ottawa energy system needs to change because it does not make effective use of available technologies to maximize consumer, community, and environmental benefit. It is not sustainable, customer-centric, reliable, cost-effective, secure, and is not constantly evolving.

2-EP-39
References: Exhibit 2, Tab 4, Sch. 3, Att. E, page 346
Preamble: *Reliability: The primary strategic outcome sought by the Smart Energy Roadmap is the target of developing enhanced grid reliability, and service offerings to enable the provision of 100% reliable electrical service.*

Please define the term 100% reliable electrical service in terms of SAIDI and SAIFI.

Please provide a summary table that lists all components of the Smart Energy Roadmap including the cost and timing of each component.

2-EP-40
References: Exhibit 2, Tab 4, Sch. 3, Att. E, s 2.3 Updated, page 12

Preamble: *Overall, the MiGen program will help evolve the grid from being load-following to supply-following.*

a) Please explain how Hydro Ottawa currently responds to changes in load.

b) Please how Hydro Ottawa plans to respond to changes in load in the future

2-EP-41
Reference: Exhibit 2, Tab 4, Sch. 3, Att. E, pages 431 to 436

Please file a numerical analysis including cost estimates and a discounted cash flow analysis of the five alternatives that were considered for the Field Area Network that are described on pages 434 and 435. If no such analysis was performed, please explain why not.

2-EP-42
Reference: Exhibit 2, Tab 4, Sch. 3, Att. F, Page 8

Please confirm that according to Hydro Ottawa, the "Optimal Average Age" of a fleet vehicle is 50% of the replacement age.

a) Does keeping the vehicle fleet at the Optimal Average Age ensures that fleet costs are minimized?

b) Is Hydro Ottawa's objective to keep its fleet at the Optimal Average Age? If the answer is yes, how long has that objective been in place? If the answer is no, please explain why not.

2-EP-43
References: Exhibit 2, Tab 4, Sch. 3, Att. F, Table 5, Page 9 and Table 8, page 12

Please explain the apparent decline in cost per Light Duty vehicle between 2022 and 2024.

2-EP-44
Reference: Exhibit 2, Tab 4, Sch. 3, Att. F, Page 11

Preamble: *With respect to the annual trend in expenditures, 2021 has a higher level of capital expenditures on vehicle replacement than average due to the need to urgently replace critical assets. Many of these assets are significantly beyond their expected life and replacement has already been delayed. However, it is no longer possible to delay any further.*

Please explain why replacement of assets significantly beyond their expected life was delayed.

Please provide the list of asset replacements and the years that the delay in replacement took place.

2-EP-45
Reference: Exhibit 2, Tab 4, Sch. 3, Att. F, Figure 6, Page 23, and Figure 4, Page 24

Please describe Hydro Ottawa maintenance practices and procedures for the protection of vehicles from corrosion and rust formation.

2-EP-46
Reference: Exhibit 2, Tab 4, Sch. 3, Att. F, Figure 8, Page 26, and Table 19, Page 27

It appears from the evidence that there is an asset that is 51 years old and 36 years beyond the 15year replacement criteria but is not scheduled for replacement in the 2021to 2025 period. What is that asset and why it is not being replaced?

2-EP-47
Reference: Reference: Exhibit 2, Tab 4, Sch. 3, Att. F, Table 21, Page 29

Please add a line that shows the ratio of the number of field employees per vehicle.

2-EP-48
Reference: Reference: Exhibit 2, Tab 4, Sch. 3, Att. F, Page 32

a) Does Hydro Ottawa track maintenance and repair costs per vehicle? If not, please explain why not.

b) Does Hydro Ottawa use a discounted cash flow repair vs repair financial analysis in its Fleet Management? If not, please explain why not

2-EP-49
Reference: Exhibit 2, Tab 3, Sch. 4, Att. H

Preamble: OEB requires that filed documents should be in a searchable/unrestricted PDF format.

a) Why did Ottawa Hydro file this exhibit in a PDF format that does not meet OEB filing requirements that documents be in a searchable/unrestricted PDF format?

b) Please refile this exhibit in a searchable/unrestricted PDF format that meets OEB filing requirements.

2-EP-50
Reference: Exhibit 2, Tab 3, Sch. 4, Att. H

a) Did Hydro Ottawa issue an RFP for the production of this report? If the answer is yes, please file the RFP. If the answer is no, please explain why not.

b) Please file the engagement letter that Hydro Ottawa sent to RSI.

c) Please file the Statement of Work for this report.

2-EP-51
Reference: Exhibit 2, Tab 3, Sch. 4, Att. H

Please file a list of documents and any other information that Hydro Ottawa provided to RSI for the production of this report.

2-EP-52
Reference: Exhibit 2, Tab 3, Sch. 4, Att. H

a) Please file the CVs of the authors of the report.

b) Is Hydro Ottawa planning to qualify the authors of the report as expert witnesses? If the answer is yes, please file the Acknowledgement of Expert Duty Form "A" for each author. If the answer is no, please explain why not.

2-EP-53
Reference: Exhibit 2, Tab 3, Sch. 4, Att. I

Preamble: OEB requires that filed documents should be in a searchable/unrestricted PDF format.

a) Why did Ottawa Hydro file this exhibit in a PDF format that does not meet OEB filing requirements that documents be in a searchable/unrestricted PDF format?

b) Please refile this exhibit in a searchable/unrestricted PDF format that meets OEB filing requirements.

2-EP-54
Reference: Exhibit 2, Tab 3, Sch. 4, Att. I

a) Did Hydro Ottawa issue an RFP for the production of this report? If the answer is yes, please file the RFP. If the answer is no, please explain why not.

b) Please file the engagement letter that Hydro Ottawa sent to Stantec.

c) Please file the Statement of Work for this report.

2-EP-55
Reference: Exhibit 2, Tab 3, Sch. 4, Att. I

Please file a list of documents and any other information that Hydro Ottawa provided to Stantec for the production of this report.

2-EP-56
Reference: Exhibit 2, Tab 3, Sch. 4, Att. I

a) Please file the CVs of the authors of the report.

b) Is Hydro Ottawa planning to qualify the authors of the report as expert witnesses? If the answer is yes, please file the OEB Acknowledgement of Expert Duty Form "A" for each author. If the answer is no, please explain why not.

2-EP-57
References: Exhibit 2, Tab 3, Sch. 4, pages 280-281 and Attachments H and I

Preamble: "*Renewal of aged, and decayed overhead infrastructure to withstand climatic forces from storm events is key to resilience over t he long term for the system. Most notably, Pole Renewal programs support the development of this resilience".*

"Increased operational capability: Hydro Ottawa will continue to invest in appropriate technologies to augment its response to outages when weather events do cause interruption. These include system capacity investments to maintain sufficient operational capacity and redundancy, as well as, automation investments, to enable remote and automatic isolation and restoration of faulted system components."

a) Please provide a list of 2021-2025 capital expenditures with dollar amounts, for each expenditure, each year that Hydro Ottawa is proposing to deal with the risks identified in the reports filed as Exhibit 2, Tab 3, Sch. 4, Attachments H and I. For each capital expenditure explain how it mitigates the specific risk that it is addresses and identify any that are required to maintain redundancy.

b) Please provide a list all 2021-2025 OM&A expenditures with dollar amounts for each expenditure for each year that Hydro Ottawa is proposing to deal with the risks identified in the reports filed as Exhibit 2, Tab 3, Sch. 4, Attachments H and I. For each OM&A expenditure explain how it mitigates the specific risk that it is addresses.

2-EP-57
Reference: Exhibit 2, Tab 3, Sch. 4, Att. J, page 32

Please file a table that describes the actions that Hydro Ottawa is taking in response to the recommendations resulting from the ISO55000 Gap Analysis listed on page 32.

2-EP-58
Reference: Exhibit 2, Tab 3, Sch. 4, Att. K, pages 15, 18, and 51

a) Were Hydro Ottawa ratepayers in Kanata-Marchwood surveyed as part of the Market Analysis? If the answer is no, please explain why not.

b) Please confirm that avoided transmission costs may not result in a saving for Hydro Ottawa ratepayers since Hydro Ottawa is not an electricity transmitter.

c) According to Figure 5-1 approximately 5% of Eligible Customers in the Kanata-Marchwood are participating in CDM and that percentage is expected to increase to 15% by 2025. Please confirm that the expectation is based on mathematical model projections and not a survey of Kanata-Marchwood customers.

SERVICE QUALITY AND RELIABILITY PERFORMANCE

2-EP-59

Reference: Exhibit 2, Tab 4, Schedule 6, Table 5

a) Please provide a graphical representation of Hydro Ottawa System Reliability2014-2019 (SAIFI and SAIDI and OEB standard).

b) Please determine relative Hydro Ottawa historic reliability among its Ontario Peer group and provide a chart showing where Hydro Ottawa is relative to the Ontario peer group (SAIDI and SAIFI) (https://www.oeb.ca/oeb/_Documents/RRR/2018_Yearbook_of_Electricity_Distributors.pdf)

c) Why is Hydro Ottawa SAIFI worse than the Clearspring EA benchmark group, given the increase in Capex over the past 5 years? Please discuss.

d) Is Hydro Ottawa targeting its System Renewal Capital towards improving Reliability? Discuss and provide examples.

2-EP-60

Reference: Exhibit 2, Tab 4, Schedule 6, pages 9 and 10, Table 8, Figure 1, Table 9 and Figure 2

a) Please confirm that LOS is a major contribution to outages.

b) Please provide the historic and 2019 year data for LOS (% of outages) with MEDs excluded. Discuss the significance of the result and compare to defective equipment (% of outages.)

c) What is Hydro Ottawa doing to reduce LOS interruptions?

d) Why are tree contacts not reducing, given the increase in VM in recent years? Please discuss and indicate if the current VM cycles are/are not appropriate.

e) Please provide the SAIFI and SAIDI targets for the 2020-2025 CIRP period.

2-EP-61

Reference: Exhibit 2, Tab 4, Schedule 6

a) Does Hydro Ottawa record Momentary Interruption data?

b) If so please, provide the 2015-2019 MAIFI data and discuss trends

OPERATING REVENUE

3-EP-1
References: Exhibit 3, Tab 1, Sch. 1, Tables 1, 2, and 3 pages 2 and 3

a) For the Residential customer class please reconcile the increase in the 2021-2025 energy sales shown in Table 1 with the decline in the 2021-2025 demand sales forecast shown in Table 2.

b) For the Residential customer class please reconcile the decline in the 2021-2025 demand sales forecast shown in Table 2 with the increase in the number of Residential customers shown in Table 3.

3-EP-2
References: Exhibit 3, Tab 1, Sch. 1, Table 2; Exhibit 2, Tab 4, Sch 3, page 280; Exhibit 2, Tab 4, Sch.3, Att. H, RSI report, Table 5, page 95

Please reconcile the decline in the 2021-2025 demand sales forecast shown in Exhibit 3, Tab 1, Sch. 1, Table 2 with the increased probability of Extreme Heat in the Ottawa area by the 2050s. shown in the RSI report, Exhibit 2, Tab 4, Sch.3, RSI Report, Att. H, Table 5, page 95 and discussed at Exhibit 2, Tab 4, Sch 3, page 280.

3-EP-3
References: Exhibit 3, Tab 1, Sch. 1, Att. C, Table 5, page 17

a) Are the Average Use and Sales numbers shown in the table weather normalized? If the answer is yes, please discuss the reasons for the decline in residential average use and sales in 2017 followed by the large increase in 2018. If the answer is no, please explain the weather conditions that caused the changes in those two years.

b) Please explain the reasons for the increase in residential average use and sales in 2024.

3-EP-4
References: Exhibit 3, Tab 1, Sch. 1, Att. C, Table 6, page 22

a) Please explain the reasons for the decline in sales in 2017 for the GS 50, GS 1000 and GS 5000 classes but an increase in sales for the GS 1500 class.

b) Please explain the reasons for the larger increase in sales in 2024 for the GS 1500 class than for other classes.

3-EP-5
References: Exhibit 3, Tab 1, Sch. 1, Att. C, Table 6, page 22

Please explain the reasons for the decline in peak demand of 8.7% in 2014 and the increase in peak demand of 4.3% in 2020.

3-EP-6
References: Exhibit 3, Tab 1, Sch. 2, Att. A, Tables 1 and 2, page 1

In Table 2, there is a column showing Actual Sales for 2020 which are compared to Forecast Sales for 2020 shown in Table 1. Please explain how Hydro Ottawa can show actual sales for 2020 in an exhibit filed May 5, 2020.

3-EP-7
References: Exhibit 3, Tab 2, Sch. 1, Table 1, page 3

a) Please explain why the Late Payment Penalty revenues is not expected to increase despite the increase in the number of customers from 2021 to 2025.

b) Please explain the reasons for the large decrease in Other Income & Deductions from $5.168 million in 2018 to $1.828 million in 2019.

OPERATING EXPENSES

4-EP-1
Reference: Exhibit 3, Tab 2, Schedule 1, Attachment B, Appendix 2-N, Shared Services and Corporate Cost Allocation

a) Please clarify Intercorporate transactions related to Facilities:
   - Confirm HOHI is a service receiving entity and HOL a service providing entity.
   - Why are Market costs listed? Is HOL charging HOHI Market Cost or HOL fully allocated cost for these two services?

b) Please provide a table that shows the Corporate Cost allocations and Allocation Factors to all affiliates including HOL.

c) Please list the details of allocations that are not direct

4-EP-2
Reference: Exhibit 4, Tab 1, Schedule 4, Updated, Table 10

a) Please confirm the 2019-2020 OM&A Expense increases by 10.07%

b) Please provide drivers/explanations for the 2019-20 for the increases in the following Back Office costs
   - Collections, Accounts &Activities
   - Corporate costs
   - Customer and community relations
   - Information Management and Technology

4-EP-3

Reference: Updated Exhibit 4, Tab 1, Schedule 5, Attachment A, and Attachment C, Appendix 2-K Employee Costs

a) Please confirm whether the annual Total compensation includes overtime.

b) Please provide a revised version of Appendix 2-K, Employee Costs **in Excel format**, to reflect:
   - Positions (FTE)
   - Management positions Executives and non-executive positions.
   - Non-management employees by union and non-union.
   - Overtime pay for each group
   - Totals by Group and Overall
   - The year over year % Total compensation increases for each group of employees
   - The total 2016-2021 average TC increase % for each group.

c) Provide the amounts of expensed and capitalized total compensation costs for historical (2016-2019), bridge (2020), and projected test year (2021).

COST OF CAPITAL AND CAPITAL STRUCTURE

5-EP-1
References: Exhibit 5, Tab 1, Schedule 1, Attachment B; Exhibit 5, Tab 1, Schedule 1, Attachment L

a) Please provide the basis of the interest rates shown, relative to OEB requirements for Affiliated Debt and Market Rates at time of issuance for the following 2019 Affiliate Debt issues, and lease reconcile the cost to the Long Term Debt Cost in Exhibit 5, Tab 1, Schedule 1, Attachment A.

7. Promissory Note Hydro Ottawa Holding Inc. Affiliated Fixed Rate 16-Oct-19 10 years ($ 87,500,000) 2.66% -$ 2,327,500.00

8. Promissory Note Hydro Ottawa Holding Inc. Affiliated Fixed Rate 16-Oct-19 30 years ($ 162,500,000) 3.21% -$ 5,216,250.00

b) Please provide the basis of the interest rates shown, relative to OEB requirements for Affiliated Debt and forecast Market Rates at time of issuance of the following issues. If the basis is the Indicative Pricing (Exhibit 5 Tab 1Schedule 1 Attachment L) as of October 2019; Confirm this will be updated as required prior to issuance for the following proposed 2020-25 Debt instruments and reconcile the cost to the Long Term Debt Cost in Exhibit 5, Tab 1, Schedule 1, Attachment A.

9. Promissory Note Hydro Ottawa Holding Inc. Affiliated Fixed Rate 1-Jul-21 10 years $ 28,000,000- 3.07% -$ 859,600.00

10. Promissory Note Hydro Ottawa Holding Inc. Affiliated Fixed Rate 1-Jul-21 30 years $ 52,000,000- 3.87% -$ 2,012,400.00

11. Promissory Note Hydro Ottawa Holding Inc. Affiliated Fixed Rate 1-Jul-23 10 years $ 21,000,000- 3.92% -$ 823,200.00

12. Promissory Note Hydro Ottawa Holding Inc. Affiliated Fixed Rate 1-Jul-23 30 years $ 39,000,000- 4.72% -$ 1,840,800.00

13. Promissory Note Hydro Ottawa Holding Inc. Affiliated Fixed Rate 9-Feb-25 10 years ($ 123,850,526) 4.22% -$ 5,226,492.20

15. Promissory Note Hydro Ottawa Holding Inc. Affiliated Fixed Rate 25-Jun-25 10 years ($ 8,328,247) 4.22% -$ 351,452.01

5-EP-2
Reference: Exhibit 5, Tab 1, Schedule 1, Attachment C

Provide details on the amount(s) and cost of the Bank of Nova Scotia Line of credit.

CALCULATION OF REVENUE DEFICIENCY OR SUFFICIENCY

6-EP-1
Reference: Updated, Exhibit 6, Tab 1, Schedule 1, Table 2

Please discuss and explain why Hydro Ottawa is proposing 2021-2025 rates that produce a cumulative Deficiency of $57 million dollars.

COST ALLOCATION

7-EP-1
Reference: Updated Exhibit 7, Tab 1, Schedule 1, Table 1, Exhibit 7, Tab 1, Schedule 1, Attachment B, Elenchus Study

Preamble: *Hydro Ottawa was unable to obtain the hourly load profile data required to derive updated load profiles for this Application. As a result, demand data figures for the 2021 Cost Allocation Model have been calculated based on hourly demand figures used in previous rate applications, adjusted to the 2021 monthly load profile and customer count forecast.*

a) Please indicate which years hourly load data were used for the Residential, GS< 50kw and GS> 50 kw.

b) Please confirm these are based on Hourly load profiles prepared by Hydro One for the 2006 Cost Allocation Information Filing (CAIF) are used for all classes except the Large Use class.

c) Please provide the annual scaling factors and resulting adjustments generated by Elenchus

7-EP-2
Reference: Updated Exhibit 7, Tab 1, Schedule 1, Attachment B, Table 3

Preamble: The Elenchus study indicates that the current Residential fixed charge should be $16.61/mo maximum (Minimum System with PLCC**).** The current fixed rate is $27.79/mo.

a) Please provide an extract of the OEB Cost Allocation Report pages 13-14 that Elenchus references
(footnote 7).

b) Please provide the progression of the Hydro Ottawa Residential fixed charge over the period 2015-2020.

c) Please compare the Hydro Ottawa 2020 Residential fixed charge to a sample of other Ontario utilities.

7-EP-4
Reference: Exhibit 7, Tab 1, Schedule 1, Table 1; Exhibit 7, Tab 1, Schedule 1, Attachment B, Tables 6-8

Preamble: The Elenchus CA result shows GS<50 kw to be materially above the recommended range and GS>50kw below the recommended range.

Please explain the rationale for proposing only a marginal reallocation/increase to the GS>50kw class.

RATE DESIGN

8-EP-1
References: Exhibit 8, Tab 7, Sch. 1, Table 1, page 2

Please add a 2019 column to Table 1 for 2019 showing current service charges and file it.

8-EP-2
References: Exhibit 8, Tab 7, Sch. 1, Table 2, page 8

Please explain the reasons for the reduction in the MicroFIT and Net-Metering ERF charge and the FIT ERF charge in 2021 and the increase in the HCI, RESOP, Other ERF charge also in 2021.

8-EP-3
References: Exhibit 8, Tab 7, Sch. 1, Table 3, page 9

Preamble: *On November 28, 2019, the OEB released the 2020 Retailer Service Rates, with the inflationary adjustment. Hydro Ottawa has used the OEB-approved 2020 inflation factor of 2.0% to adjust the rate for 2021…*

Please explain how Hydro Ottawa used the OEB approved inflation factor of 2.0% to increase the Standard Supply Service Administrative Charge from $0.25 in 2020 to $0.62 in 2021.

DEFERRAL AND VARIANCE ACCOUNTS

9-EP-1
References: Exhibit 9, Tab 1, Schedule 1, Table 4 –Group 2 Accounts for 2021-2025; Exhibit 9, Tab 1, Schedule 3 - 2.2 Energy East Pipeline

Preamble: 1508 Sub-account Energy East TransCanada Pipeline balance of $55,424 on a final basis and to discontinue use of this Account.

a) Please provide details of the costs in this account.

b) What is the Threshold applicable to this account?

c) If the amount is below threshold, why should the balance be disposed of?

9-EP-2
References: Exhibit 9, Tab 1, Sch. 3, page 9 and Table 3, page 11

Preamble: *The New Facilities Account was established to record the revenue requirement impacts of the costs of the New Facilities and related land that are above $66.0M. Any amount recorded into this account is subject to a prudency(sic) review.*

a) Please confirm that the total cost of New Facilities is $99,544,582 consisting of $66,000,000 million plus the $33,544,582 shown in Table 3.

b) Please confirm that Hydro Ottawa is seeking to recover the revenue requirement on the total cost of New Facilities.

c) Please confirm that a prudence review is to be conducted in the current proceeding.

d) For each of the New Facilities please file a table that shows the approved estimate and the actual expenditure for each showing amounts for land, materials, labour, overheads, and interest during construction with variance explanations for each amount.

e) Please file copies of quarterly progress and variance reports that were presented to senior management of Hydro Ottawa during the construction of the New Facilities.

f) Please list specific actions of senior management in response to each quarterly progress and variance report.

Submitted on behalf of Energy Probe by its consultants:

Roger Higgin
SPA Inc.

Tom Ladanyi
TL Energy Regulatory Consultants Inc.