

ONTARIO ENERGY BOARD

Hydro One Networks Inc.

Application for an order approving just and reasonable
rates and other charges for electricity distribution
to be effective January 1, 2018 until December 31, 2022

**INTERROGATORIES OF
CANADIAN MANUFACTURERS & EXPORTERS (“CME”)
TO HYDRO ONE NETWORKS INC. (“HYDRO ONE”)**

Exhibit A – Administration

Issue 7 **Is Hydro One’s proposed Custom Incentive Rate Methodology, using a Revenue Cap Index, consistent with the OEB’s *Rate Handbook*?**

CME # 1

Ref: **Exhibit A, Tab 3, Schedule 2, Updated**

- (a) For the 5 bullet points shown on pages 2 & 3, please explain how Hydro One would address each of the points if the OEB were to approve a price cap plan rather than the proposed revenue cap plan.
- (b) Please explain how the need to update the cost of capital parameters in 2021 to reflect estimated changes in the industry and load forecast over the term are related to the proposal to integrate the Acquired Utilities.
- (c) Please provide a detailed list and description for each mid-term review component that is being proposed by Hydro One.

Issue 8 **Is the proposed industry-specific inflation factor, and the proposed custom productivity factor, appropriate?**

CME # 2

Ref: **Exhibit A, Tab 3, Schedule 2, Updated**

- (a) Based on 2016 data now available from Statistics Canada, what is the projected inflation rate that will be determined by the OEB for 2018?
- (b) Based on the above noted inflation rate, what is the impact on the revenue requirement in 2018? Please explain fully.

Issue 8 Is the proposed industry-specific inflation factor, and the proposed custom productivity factor, appropriate?**CME # 3****Ref: Exhibit A, Tab 3, Schedule 2, Updated**

At page 4, it is stated that the productivity factor used in the rate cap index will not be updated annually, but will be maintained at the proposed stretch factor level of 0.45% for all years.

- (a) Will Hydro One (or PSE) be updating the analysis on an annual basis to determine if there are any changes in the custom productivity stretch factor? If not, why not?
- (b) How will the OEB and other interested stakeholders determine if Hydro One is improving its performance relative to the benchmark over the custom IR period in the absence of annual updates to the PSE study?

Issue 9 Are the values for the proposed custom capital factor appropriate?**CME # 4****Ref: Exhibit A, Tab 3, Schedule 2, Updated**

CME is interested in the sensitivity of the capital factor to changes in OM&A and capital additions to rate base.

- (a) Please provide a version of Table 1 that reflects a 1.55% increase in OM&A in 2019 through 2022 in place of the 1.45% used.
- (b) Please provide a version of Table 1 that reflects a reduction in capital additions closed to rate base in 2018 of \$10 million, with no changes to capital additions in 2019 through 2022.
- (c) Please provide a version of Table 1 that reflects a reduction in capital additions closed to rate base of \$10 million in each of 2018 through 2022.

Issue 9 Are the values for the proposed custom capital factor appropriate?**CME # 5****Ref: Exhibit A, Tab 3, Schedule 2, Updated**

- (a) Will the capital factor that is calculated and shown in Table 1 be updated annually at the same time that the inflation factor is updated, or will the capital factor be determined for each of 2019 through 2022 as part of this proceeding and then not altered regardless of the change in the capital related revenue requirement due to changes from forecast in capital additions? If this cannot be confirmed, please explain fully.
- (b) If the capital factor is not proposed to be updated on an annual basis for 2019 through 2022, please confirm that the capital factor will not be altered regardless of the change in the capital related revenue requirement due to changes in the cost of capital parameters as proposed by Hydro One for 2021 and 2022. If this cannot be confirmed, please explain fully.

Issue 9 Are the values for the proposed custom capital factor appropriate?**CME # 6****Ref: Exhibit A, Tab 3, Schedule 2, Updated**

- (a) Does the rate base and capital related revenue requirement shown in Table 1 include the rate base and capital related revenue requirement associated with cash working capital?
- (b) If yes, please explain why the capital factor should be influenced by the cash working capital, when the capital factor is designed to meet specific circumstances associated with the proposed capital investments set out in the DSP.
- (c) Please provide a version of Table 1 that removes the cash working capital component of rate base and capital related revenue requirement and adds the revenue requirement impact below line 8 (similar to OM&A) while maintaining the calculation of the capital factor using line 8 (which now excludes the revenue requirement associated with cash working capital) and the total revenue requirement from the previous year.

Issue 15 Is the proposed Earnings/Sharing mechanism appropriate?**CME # 7****Ref: Exhibit A, Tab 3, Schedule 2, Updated**

With respect to the earnings sharing proposal:

- (a) Please explain why under a revenue cap mechanism Hydro One should retain the first 100 basis points of excess earnings.
- (b) Please confirm that the proposed sharing is asymmetrical. That is, if Hydro One under earns relative to the approved return on equity, Hydro One will not seek to recover any portion of the shortfall from ratepayers
- (c) Please confirm that the calculation of the actual ROE will be based on the same calculations and methodologies employed in a cost of service application. If this cannot be confirmed, please explain in detail any differences between the proposed ESM calculation of ROE as compared to that in a cost of service application.
- (d) What ROE will be used in the comparison to the actual ROE? For example, will it be the ROE that is built into rates for 2018, or will it change each year to reflect changes in the OEB's approved ROE?
- (e) Please confirm that Hydro One does not propose to "normalize" actual revenues to reflect the normal (or forecasted) degree days used to set base rates in 2018. If this cannot be confirmed, please explain in detail how Hydro One plans to normalize revenues.
- (f) Please explain why Hydro One proposes that any earnings sharing amounts that may accrue to ratepayers would not be cleared to them until Hydro One's next rebasing application.

- (g) Does Hydro One plan on filing annual applications to dispose of balances in other deferral and variance accounts?
- (h) What interest rate does Hydro One propose would be applied to amounts owed to ratepayers in the ESM deferral account?

Issue 58 Are the proposed new deferral and variance accounts appropriate?

CME # 8

Ref: Exhibit A, Tab 3, Schedule 2, Updated

With respect to the proposed capital in-service variance account:

- (a) Assume that for each year of the Custom IR that in-service additions are 98% of the OEB-approved level. Please provide a table that shows the difference in the revenue requirement for each year based on this 98% level of in-service capital additions relative to the 100% OEB-approved level as proposed by Hydro One.
- (b) Please explain why Hydro One has picked a 98% factor rather than the 100% factor that is built into rates.
- (c) What interest rate would apply to the account?
- (d) Please explain why the account could not be cleared each year, rather than clearing the account after 5 years.

Issue 58 Are the proposed new deferral and variance accounts appropriate?

CME # 9

Ref: Exhibit A, Tab 3, Schedule 2, Updated

The last bullet point on page 10 states that if the cumulative in-service additions in any year of the Custom IR term exceed 98% of the cumulative OEB-approved amount for that period, no entry would be made in the variance account and no amount would be recovered from ratepayers.

- (a) Does this mean that if Hydro One exceeds the 98% cumulative OEB-approved in-service amount for any year, that there would be no amount in the variance account for all years regardless of Hydro One being under the 98% cumulative OEB-approved in-service level for any of those years, or only for the years in which the 98% cumulative in-service figure has been exceeded?
- (b) Does the Custom IR term include the rebasing year? If so does this mean that if Hydro One were to exceed the 98% level of in-service capital expenditures in 2018, there would be an automatic amount in excess of the 98% cumulative in-service additions used in the 2019 and subsequent calculations for this account?
- (c) Please explain the need for the exclusion of any revenue requirement associated in the variance in in-service additions resulting from verifiable productivity gains, when the productivity factor has already been built into the revenue requirement at line 7 in Table 1.

Issue 16 Are the proposed Z-factors and Off-Ramps appropriate?**CME # 10****Ref: Exhibit A, Tab 3, Schedule 2, Updated**

- (a) Please confirm that Hydro One is proposing a materiality threshold of \$1 million for the Z-factor. If this cannot be confirmed, please provide the proposed materiality threshold proposed by Hydro One.
- (b) Is Hydro One proposing that the Z-factor also be available for the 2018 re-basing year? If so, please explain where in the current Filing Requirements for Electricity Distribution Rate Applications this is noted as being available in the cost of service/rebasing test year.
- (c) Please confirm that the materiality threshold is based on the revenue requirement impact with any material, unexpected cost. If this cannot be confirmed, please explain why it is not based on the revenue requirement impact.
- (d) Hydro One has defined a Z-factor as an event that is associated with material, unexpected costs. Would a Z-factor event also be triggered by a material, unexpected reduction in costs (such as a reduction in tax rates or increase in CCA rates)? Please explain fully.
- (e) Would an unexpected material increase or decrease in revenues be eligible for consideration as a Z-factor event? Please explain fully.

Issue 8 Is the proposed industry-specific inflation factor, and the proposed custom productivity factor, appropriate?**CME # 11****Ref: Exhibit A, Tab 5, Schedule 1**

- (a) Has Hydro One updated Table 1 (Peer Selection Process) to reflect the proposed movement from Group V to Group IV for stretch factor purposes? If not, why not?

Issue 10 Are the program-based cost, productivity and benchmarking studies filed by Hydro One appropriate?**CME # 12****Ref: Exhibit A, Tab 5, Schedule 2, Updated, Attachment 1**

- (a) Please explain the significant difference in the 2015 capital cost shown in the live excel model of \$934,109,550 and the figure of \$706,792,807 shown in Table 2 in the July 2016 Report to the Ontario Energy Board on Empirical Research in Support of Incentive Rate-Setting: 2015 Benchmarking Update from Pacific Economics Group Research, LLC.

Exhibit B – Distribution System Plan

Issue 24 Does Hydro One's investment planning process consider appropriate planning criteria? Does it adequately address the condition of distribution assets, service quality and system reliability?

CME # 13

Ref: Exhibit B1, Tab 1, Schedule 1, DSP Section 1.1, page 3 of 23

Hydro One states that it also "considered what would be required to achieve the lowest 2018 rate increase without material disruption to its operations. Presented as the "Plan C" scenario, Hydro One's conclusion was that this option as a whole was not viable due to the estimated degradation of approximately 2% in both SAIDI and SAIFI that would result from such a reduced level of sustainment capital investment and reductions in work programs and the associated increased backlog of assets in poor condition."

- (a) How does Hydro One define "material" disruptions to its operations
- (b) What methodology did Hydro One employ to determine what level of disruptions were material?
- (c) Does a 2% degradation in SAIDI and SAIFI qualify as being a material disruption to Hydro One's operations?

Issue 29 Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?

CME # 14

Ref: Exhibit B1, Tab 1, Schedule 1, DSP Section 3.6, Table 63, page 1 of 9

- (a) In Table 63, the columns for 2013 and 2014 only show planned values. Footnote one explains that they were IRM years and don't have Board-approved capital expenditure figures. Does Hydro One have any data on actuals for those years? If so, could Hydro One please update the table with those values.

Issue 20 Does the application promote and incent appropriate outcomes for existing and future customers including factors such as cost control, system reliability, service quality, and bill impacts?

CME # 15

Ref: Exhibit B1, Tab 1, Schedule 1, DSP Section 1.4, page 3 of 43, Table 8

- (a) To the extent possible, please update the values in table 8 – Distribution OEB Scorecard to include the actuals for 2017, and the variance between 2017 actuals and target.

Issue 29 Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?

CME # 16

Ref: ISD: SR-05, page 2 of 5

Hydro One states: "These new reclosers are designed for up to 10,000 reclose operations with minimal maintenance. This will reduce the maintenance required compared to oil filled hydraulic type reclosers which are only designed with a threshold of 58 to 272 reclose operations before a maintenance cycle is required.

- (a) What is the terminal number of reclose operations that the older reclosers could complete even with regular maintenance?
- (b) What is the terminal number of reclose operations that the new reclosers can complete with proper maintenance?

Issue 29 Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?

CME # 17

- (a) How will moving to a defect based management system affect Hydro One's ability to be benchmarked with other distributors who may not be using a defect based management system?

Issue 29 Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?

CME # 18

Ref: Exhibit B1, Tab 1, Schedule 1, DSP Section 1.4, page 9 of 43

Hydro One states: "This metric is directly impacted by the number of kilometres that were managed over many years and is not immediately impacted by the number of kilometres managed in the current or previous year. As a result this is a lagging indicator of the outcomes of the vegetation management program."

- (a) The Hydro One Vegetation Management Study states that outcomes under the defect management regime can be achieved in one-third of the time. Will this reduction in time help to ameliorate the lagging nature of the total vegetation caused interruptions measure? If not, why not?

Issue 29 **Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?**

CME # 19

Ref: **Exhibit B1, Tab 1, Schedule 1, DSP Section 3.6, page 3 of 9**

Hydro One states: "System Service spending will remain within historical spending levels from 2018 to 2022. This represents a decrease as compared to previous budget amounts. This reflects a more realistic stance on the ability to complete the necessary work.

- (a) What about Hydro One's ability to complete necessary work was unrealistic?
- (b) What caused Hydro One to move away from its unrealistic work completion outlook?

Issue 29 **Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?**

CME # 20

Ref: **ISD SA-02 page 2 of 3**

- (a) What drives the changes over time in the number of metering devices that are replaced and how does Hydro One calculate the total forecast devices replaced?

Issue 29 **Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?**

CME # 21

Ref: **ISD SA-03 page 1 of 4**

Hydro One states: "some of these meters cannot communicate reliably with Hydro One's meter infrastructure network, resulting in manually reading of these meters at specific intervals and estimated billing for the customer."

- (a) Why can't some of the smart meters communicate with the network?
- (b) If the answer to a) is the carrier network's lack of capacity, why was the smart meter network solution chosen for those areas with weak network capacity?
- (c) Even with this investment, there will still be 96,564 meters without reliable communication, were any other alternatives that would have connected a larger number of meters considered before requiring another exemption from the OEB?

Issue 29 Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?

CME # 22

Ref: Exhibit B1, Tab 1, Schedule 1, DSP Section 1.1 page 13 Table 2 and page 14 of 23

Hydro One states: "System Renewal investment costs are projected to increase by an average of 12.3% annually during the forecast period. Storm damage restoration and trouble calls, pole replacements, and distribution station refurbishments (ISD SR-07, ISD SR-09, and ISD SR-06, respectively) make up the bulk of activities in this category."

- (a) If storm damages restoration and trouble calls are expected to remain stable, the pole replacement program and station refurbishment increase until 2020 and then level off, and smart meter replacement spending doesn't begin until 2022, please explain why system renewal spending is approximately \$25.8 million higher in 2021 than it is in 2020.
- (b) Regarding the significant increase in projected spending in 2022 for the replacement of smart meters, does Hydro One plan on replacing smart meters in areas where they are unable to consistently send a signal?
- (c) If the answer to b) is yes, are the replacement meters expected to be able to send a signal consistently?
- (d) If the answer to b) is no, please provide the anticipated cost savings of not replacing the malfunctioning or under-performing smart meters with non-smart alternatives.
- (e) What are the drivers that determine the useful life of smart meters?

Issue 29 Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?

CME # 23

Ref: Exhibit B1, Tab 1, Schedule 1, DSP Section 2.3 page 38 of 89, figure 29

- (a) How long does it take the average wood pole to degrade from 'good condition' to 'poor condition'?
- (b) Does Hydro One take that time period into account when determining their expected service lives?

Issue 29 Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?

CME # 24

Ref: Exhibit B1, Tab 1, Schedule 1, DSP Section 3.2 page 1 and 2, Table 54 and 55

- (a) If possible, please provide updates to Table 54 and 55 with 2017 actuals.

- (b) If that information is not available, when will it become available?

Issue 29 Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?

CME # 25

Ref: Exhibit Q, Tab 1, Schedule 1, page 13 of 25

Hydro One states: "The Defect Correction Program is the primary planned work program designed to ensure that one third of Hydro One's distribution network (34,666 km) will be patrolled yearly to identify and correct vegetation defects."

- (a) Will Hydro One be patrolling 1/3 of the distribution network each year such that the whole distribution network is patrolled every three years, or are certain areas targeted due to higher growth or vegetation profile?
- (b) If areas are cleared of defects, and not patrolled for a year or more, what is the expected likelihood of having previous growth that was not identified as a defect causing outages in the interim?

Issue 29 Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?

CME # 26

Ref: Exhibit Q, Tab 1, Schedule 1, page 13 of 25
Exhibit B1, Tab 1, Schedule 1, Section 1.6, Attachment 2, page 32

At page 32 of the Hydro One Vegetation Management Study, CN Utility Consulting states that Integrated Vegetation Management is considered the most universal best management practices by a number of groups. According to the report, the key to IVM is the use of herbicides when growth is a brush, before it becomes a tree.

- (a) Does the defect correction program's activities line up with the tenets of IVM?
- (b) Does the removal only of defects in the distribution area lead to the growth of non-defective brush into trees, thus making it more difficult to remove if they ever become defective?

Issue 29 Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?

CME # 27

Ref: Exhibit Q, Tab 1, Schedule 1, page 14 of 25

Hydro One states: "Hydro One views the 2018-2022 period as transitional, and Hydro One anticipates incurring transition costs with this new approach."

- (a) Please provide a reference to where in the evidence the anticipated transition costs are provided. If there is not yet evidence on this matter, please provide a complete breakdown of the anticipated transition costs that Hydro One will incur by changing its approach to vegetation management, and a brief summary about why and how those costs will be incurred.

Issue 29 Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?

CME # 28

Ref: Exhibit Q1, Tab 1, Schedule 1, Attachment 2, page 14, Table 8

Table 8 provides cost projections for a three year cycle in zones A through D, and total annual and 3 year cost projections.

- (a) Please provide a reference in the evidence to a table that compares the cost projections in table 8 to Hydro One's previous cost projections under the old vegetation management cycle. If one is not yet available, please complete such a table.

Issue 29 Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?

CME # 29

Ref: Exhibit B1, Tab 1, Schedule 1, DSP Section 3.6, page 1 of 9

CME notes that a number of the system renewal and system access projects have been given a priority rating of "demand" (such as SR-01 and SS-01).

- (a) Please provide a breakdown of what projects in the "system renewal" category were impacted due to Hydro One's change in spending from \$285 million to \$252.2 million in 2017. Please provide the priority ranking of the impacted projects.
- (b) Please provide a breakdown of what projects in the "system service" category were impacted due to Hydro One's change in spending from \$110.1 million to \$66.6 million in 2017. Please provide the priority ranking of the impacted projects.

Exhibit C – Employee Compensation and Pension Issues

Issue 40 Are the proposed 2018 human resources related costs (wages, salaries, benefits, incentive payments, labour productivity and pension costs) including employee levels, appropriate (excluding executive compensation)?

CME # 30

Ref: Exhibit C1, Tab 2, Schedule 1, page 5 of 51, lines 3 to 10

Hydro One refers to Contract Staff who are individuals engaged as independent contractors, not on the Corporation's payroll and states that "They are engaged at Hydro One for varying amounts of time and paid varying amounts commensurate with their skill sets and market rate for that skill. Contract staff are tracked by work programs or activities and not by headcount."

- (a) Please produce the Contract Staff data as tracked by work programs and activities.
- (b) Please produce data to indicate how much it is spending on Contract Staff. If the data is not available, please explain why not. If the data is available, produce the data in the same format as Exhibit C1, Tab 2, Schedule 1, Attachment 6.
- (c) How does the Corporation ensure that it is paying Contract Staff market rates for the skills procured?
- (d) What percentage of Contract Staff are former employees of Hydro One?

Issue 40 Are the proposed 2018 human resources related costs (wages, salaries, benefits, incentive payments, labour productivity and pension costs) including employee levels, appropriate (excluding executive compensation)?

CME # 31

Ref: Exhibit C1, Tab 2, Schedule 1, Page 22 of 51

Hydro One indicates that "Incentive-based compensation rewards performance and allows the Company to attract, motivate and retain qualified employees in a competitive labour market."

- (a) Please provide statistical data of management attrition levels before and after the Incentive-based compensation rewards program was implemented.
- (b) Please provide any studies which Hydro One conducted prior to implementing the incentive-based compensation program which indicated that management-level turnover was a concern of the corporation.

Issue 40 Are the proposed 2018 human resources related costs (wages, salaries, benefits, incentive payments, labour productivity and pension costs) including employee levels, appropriate (excluding executive compensation)?

CME # 32

Ref: Exhibit C1, Tab 2, Schedule 1, Page 28 of 51

Hydro One attributes "below average base wage increases" in collective bargaining settlements with PWU and the Society to the new benefit provided to these unionized employees of being eligible to receive shares of Hydro One Limited. Hydro One also advises that the first share grant day for eligible PWU represented employees is April 1, 2017. The first share grant for Society represented employees is April 1, 2018.

- (a) Confirm whether the PWU or the Society negotiated any other monetary or benefit increases beyond those that are specifically referenced on pages 28 through to 30. If further monetary or benefit increases were negotiated, provide full particulars.
- (b) Provide a copy of the Collective Bargaining Agreements with the PWU and the Society as negotiated in the most recent round of bargaining referred to on page 28 through to 30 as well as the prior two Collective Bargaining Agreements with each union.
- (c) Please advise of the number and value of shares granted to PWU employees on April 1, 2017.
- (d) Please provide documents which provide details regarding these share plans including any policies developed regarding the share plan or documents signed between Hydro One and the unions regarding these share arrangements.

Issue 40 Are the proposed 2018 human resources related costs (wages, salaries, benefits, incentive payments, labour productivity and pension costs) including employee levels, appropriate (excluding executive compensation)?

CME # 33

Ref: Exhibit C1, Tab 2, Schedule 1, Page 29 of 51, lines 17 to 21

Hydro One indicates that "Pension costs were reduced by increasing employee pension contributions and reducing future pension benefits. In addition to advancing the progression to a 50-50 cost-sharing for pension benefits, Hydro One indicates that the increase in pension contributions more than offsets the costs of the share grant program for both unions."

- (a) Please provide the costs calculations which supports the statement that the increase in employee pension contributions more than offsets the costs of the share grant program for both unions.
- (b) Please provide particulars of the amount of pension costs reductions and how this was achieved through collective bargaining.
- (c) Please specify the current cost sharing ratio of pension expenses for both unions.

Issue 40 Are the proposed 2018 human resources related costs (wages, salaries, benefits, incentive payments, labour productivity and pension costs) including employee levels, appropriate (excluding executive compensation)?

CME # 34

Ref: Exhibit C1, Tab 2, Schedule 1, Attachment 4

Hydro One has produced a 2017 Hydro One Team scorecard for execution and performance which is used to provide short term incentive pay to MCP employees.

- (a) Please provide a copy of the short-term incentive program policy.
- (b) Please provide the 2018 version of the Hydro One Team Scorecard.
- (c) Please provide the percentage of eligible employees who received a STIP payment and the average amount of STIP payment to MCP employees.

Issue 40 Are the proposed 2018 human resources related costs (wages, salaries, benefits, incentive payments, labour productivity and pension costs) including employee levels, appropriate (excluding executive compensation)?

Issue 41 Has Hydro One demonstrated improvements in presenting its compensation costs and showing efficiency and value for dollar associated with its compensation costs (excluding executive compensation)?

CME # 35

Ref: Exhibit C1, Tab 2, Schedule 1, Attachment 7, Page 2 lines 1 to 4

Hydro One states that past applications only captured total compensation for employees on payroll on December 31 but that not all of Hydro One's employees are on payroll at that time and that this is particularly true of temporary and casual staff.

- (a) Please provide a table indicating the headcount and FTE total number of temporary and casual staff which were not included in Hydro One's past applications from 2014 to 2017.
- (b) Please include in the same table the total value of these employees compensation using the "total compensation" approach.

Exhibit C – Operating Revenue

Issue 44 **Is Hydro One's proposed depreciation expense for 2018 and further years appropriate?**

CME # 36

Ref: **Exhibit C1, Tab 6, Schedule 1, Updated**

- (a) Please provide a table that shows for each of 2018 through 2019 the total depreciation and amortization expense based on Hydro One's historically approved depreciation rates and based on the 2016 Foster Associates study, along with the difference for each year.
- (b) What is the change in the revenue requirement impact on the 2018 test year of using the depreciation rates based on the 2016 Foster Associates study as compared to using the current approved rates?
- (c) Based on the \$21.9 million difference noted on page 1, will Hydro One's rate base at the end of 2022 be more than \$100 million higher under the proposal to retain the existing depreciation rates as compared to changing to the rates from the 2016 Foster Associates study beginning in 2018?

Issue 44 **Is Hydro One's proposed depreciation expense for 2018 and further years appropriate?**

CME # 37

Ref: **Exhibit C1, Tab 6, Schedule 1, Updated**
 Exhibit A, Tab 3, Schedule 2

- (a) What is the impact on the total revenue requirement in each of 2019 through 2022 of using the 2016 Foster Associates study depreciation rates in place of the current approved rates?
- (b) Please provide a version of Table 1 from Exhibit A, Tab 3, Schedule 2 that shows the impact on the calculation of the capital factor if Hydro One used the depreciation rates from the 2016 Foster Associates study.

Issue 44 **Is Hydro One's proposed depreciation expense for 2018 and further years appropriate?**

CME # 38

Ref: **Exhibit Q, Tab 1, page 11**
 Exhibit C1, Tab 6, Schedule 1, Updated

The updated evidence in Exhibit Q increases the depreciation expense by about \$4.5 M. As shown in Table 2 in Exhibit C1, Tab 6, Schedule 1, Updated, the depreciation expense is composed of four parts.

- (a) Is the depreciation expense increase noted in Exhibit Q solely related to the depreciation on fixed assets?

- (b) Based on the new capital addition forecast provided in Exhibit Q, is there any change to the capitalized depreciation and/or asset removal costs shown in the above noted Table 2? If not, please explain why not.

Issue 44 Is Hydro One's proposed depreciation expense for 2018 and further years appropriate?

CME # 39

Ref: Exhibit C1, Tab 6, Schedule 1, Updated

- (a) Please provide a version of Tables 1 & 2 that shows for each of the historical years and the bridge year where there is a Board approved amount for depreciation and amortization, the Board approved amount, the actual amount and variance for each year in the same level of disaggregation as shown in Tables 1 and 2.

Issue 44 Is Hydro One's proposed depreciation expense for 2018 and further years appropriate?

CME # 40

Ref: Exhibit C1, Tab 6, Schedule 1, Updated

- (a) What is driving the nearly 50% increase in amortization expense shown in the Environmental row in Table 3 for 2017 as compared to 2016?
- (b) Based on the most recent actual data available, has this increase materialized in 2017?

Issue 57 Are the proposed amounts, disposition and continuance of Hydro One's existing deferral and variance accounts appropriate?

CME # 41

Ref: Exhibit C1, Tab 7, Schedule 1

- (a) Does the deferral account for tax rate changes noted on page 2 include both changes in provincial and federal tax rates, as well as any changes in CCA rates? If not, please explain.
- (b) Please provide examples of tax policy changes or administrative policy beyond a change in the tax rate and CCA rates that would be eligible for inclusion in the deferral account for tax rate changes. For example would the impact of changes to existing tax credits or the creation of new tax credits be included in this account?

Issue 3 Is the overall increase in the distribution revenue requirement from 2018 to 2022 reasonable?

CME # 42

Ref: Exhibit C1, Tab 7, Schedule 2, Attachment 5 & Attachment 6, Updated

A comparison of the number of eligible positions in 2016 (Attachment 6) and the forecast for 2018 through 2022 (Attachment 5) shows significant reductions for the Ontario Co-op Education Credit

(358 to 247), the Ontario Apprenticeship Credit (394 to 346 in 2018 and to 268 in subsequent years) and the Federal Apprenticeship Tax Credit (245 to 169).

- (a) Please explain the significant reduction in the eligible positions for each of the above noted tax credits.
- (b) Please confirm that the wages & salaries included in OM&A costs for the 2018 through 2022 period reflect the reduction in eligible positions.
- (c) Please explain why the average annual Ontario Apprenticeship Credit per eligible position is about \$3,000 per year when the credit is \$5,000 per year.

Issue 33 Are the amounts proposed for the rate base from 2018 to 2022 appropriate?

CME # 43

**Ref: Exhibit C1, Tab 7, Schedule 2, Attachment 4, Updated
Exhibit D2, Tab 1, Schedule 2, Attachment 1**

- (a) Please explain why the net additions shown in the first reference for each of 2014, 2015 and 2016 are less than the additions less disposals (excluding non-regulated utility assets) shown in the fixed asset continuity schedules provided in the second reference.
- (b) Please explain why the figures shown in the CCA schedule by CCA class do not match the corresponding figures shown in the fixed asset continuity schedules. For example, the 2015 CCA schedule shows net additions to Class 12 of \$13.3, while the sum for this class on the 2015 fixed asset continuity schedule is \$28.3 (or \$33.6 if computer software is included).

Issue 33 Are the amounts proposed for the rate base from 2018 to 2022 appropriate?

CME # 44

**Ref: Exhibit C1, Tab 7, Schedule 2, Attachment 2 Updated
Exhibit D2, Tab 1, Schedule 2, Attachment 1**

- (a) Please explain why the net additions shown in the first reference for 2017 is lower than the additions less disposals (excluding non-regulated utility assets) shown in the fixed asset continuity schedule provided in the second reference.
- (b) Please explain why the net additions shown in the first reference for 2018 is higher than the additions less disposals (excluding non-regulated utility assets) shown in the fixed asset continuity schedule provided in the second reference.
- (c) Please explain why the net additions shown in the CCA schedule by class do not correspond to the net of the additions and disposals shown in the fixed asset continuity schedules. For example, the net additions shown for 2018 CCA purposes in Class 8 is \$30.6, while the net figure from the fixed asset continuity schedule is about \$21 based on the individual line items shown as Class 8 assets.

- (d) Has Hydro One provide fixed asset continuity schedules (Appendix 2-BA) for each of 2019 through 2022? If not, why not, and how has Hydro One determined the appropriate level of additions for each CCA class in 2019 through 2022?
- (e) Please provide a table that shows for each of 2014 through 2022, the net additions for CCA purposes and the net of in-service additions less disposals used for rate base purposes, along with a third line that shows the difference by year.

Issue 33 Are the amounts proposed for the rate base from 2018 to 2022 appropriate?

CME # 45

**Ref: Exhibit Q, Tab 1
 Exhibit C1, Tab 7, Schedule 2**

- (a) Please provide a version of Attachments 1 & 2 of Exhibit C1, Tab 7, Schedule 2 that reflects the corporate income taxes shown in Table 10 of Exhibit Q, Tab 1.

Issue 3 Is the overall increase in the distribution revenue requirement from 2018 to 2022 reasonable?

CME # 46

**Ref: Exhibit C1, Tab 7
 EB-2016-0160 Decision and Order dated November 9, 2017**

- (a) What is the impact on the 2018 distribution revenue requirement if Hydro One were to quantify and reflect the OEB findings in the November 9, 2017 EB-2016-0160 Decision and Order related to the regulatory income taxes recoverable from ratepayers.

Exhibit D – Cost of Capital and Capital Structure

Issue 33 Are the amounts proposed for the rate base from 2018 to 2022 appropriate?

CME # 47

**Ref: Exhibit D1, Tab 1, Schedule 1, Updated
 Exhibit Q, Tab 1, Schedule 1**

Hydro One has filed Appendix 2-BA Fixed Asset Continuity Schedules in the D2-01-02-01 Excel spreadsheet for the 2014 through 2018 period.

- (a) Please provide Appendix 2-BA Fixed Asset Continuity scheduled for the 2014 through 2018 period that reflect the distribution rate base shown in Table 7 in Exhibit Q.
- (b) Has Hydro One filed a similar spreadsheet for the remaining test years 2019 through 2022 that corresponds to the mid-year net plant figure shown in Table 7 of Exhibit Q, Tab 1, Schedule 1? If not, please explain why not and provide the fixed asset continuity schedules for the 2019 through 2022 years based on the figures provided in Table 6 and 7 in Exhibit Q.

Issue 34 Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?**CME # 48****Ref: Exhibit D1, Tab 1, Schedule 3, Attachment 1**

- (a) With respect to the service lag description on page 7, please provide the calculation that turns the percentages of monthly, bi-monthly, quarterly and unassigned billing frequencies into the service lag of 17.25 days.
- (b) Please explain the increase in the service lag to 17.25 days from the approved figure of 16.40 days in the Navigant study filed in EB-2013-0416.
- (c) Please explain the reduction in the percentage of monthly billed customers from 96% in EB-2013-0416 to 90.3% in the current study.
- (d) Please explain in detail the determination of the lag days associated with the 6.9% revenue weighting of customers that do not have an assigned billing schedule, including why a customer would not have an assigned billing schedule.
- (e) Please explain why no such category for customers that do not have an assigned billing schedule existed in the study filed in EB-2013-0416.

Issue 34 Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?**CME # 49****Ref: Exhibit D1, Tab 1, Schedule 3, Attachment 1**

The evidence notes that Hydro One has reduced its average collection lag to 25.90 days (page 7). The previous collection lag was 28.77 days (EB-2013-0416). In the OEB's June 3, 2015 letter to all licensed electricity distributors and other interested parties re "Allowance for Working Capital for Electricity Distribution Rate Applications", the OEB set a default collection period of 22.0 days that was based on the minimum payment period plus allowances for payments by mail as specified in s. 2.6 of the Distribution System Code and noted that the observed sample range was 21.8 days to 29.1 days.

- (a) Please explain why the Hydro One collection lag remains significantly higher than the 22.0 days used by the OEB.
- (b) Please explain why the statutory approach described by Navigant on page 4 is not used for the collection lag, given the length that customers have to pay is set out in the Distribution System Code, as noted above.
- (c) Does Hydro One have any plans to improve (i.e. shorten) the collection lag over the 2018 through 2022 period? If not, why not?
- (d) The Navigant report is based on actual 2014 information. What has Hydro One done to reduce the collection lag in 2015, 2016 and 2017?

Issue 34 Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?**CME # 50****Ref: Exhibit D1, Tab 1, Schedule 3, Attachment 1**

As a result of the introduction of distribution rate protected residential customers and the delivery credit for on-reserve customers in Bill 132, *Fair Hydro Act*, 2017, a portion of Hydro One's retail revenue will come from a party other than the residential customers.

- (a) Please confirm that this means that in Table 2, there would be less revenue coming through the retail revenue line and a corresponding increase in revenue coming from the government via a third party (such as the IESO). If this cannot be confirmed, please explain fully.
- (b) Please provide an estimate for each of 2018 through 2022 of the amount of revenue from customers that will be shifted from distribution revenues to government funded revenues as a result of the distribution rate protected residential customer and delivery credit for on-reserve customers provisions of the Fair Hydro Act. For each year, please also indicate what percent this revenue is of the total retail revenue (i.e. including the government funded portion of the retail revenue).
- (c) The Fair Hydro Act indicates requires that the IESO receive payments to and from the Minister and to make payments to distributors in respect of the distribution rate protection and on-reserve delivery credits that result from the Fair Hydro Plan. Has the IESO or the government indicated the timing of these payments to Hydro One or, for example, will the revenue due to Hydro One be used as a credit on the monthly cost of power invoice sent by the IESO each month?
- (d) In Table 2, the lag days shown for the RRRP revenues is 32.72 days, the same figure as the lead time for the cost of power expense in Table 4. Is this because the RRRP revenue received by Hydro One is an offset to the cost of power on the monthly invoices received from Hydro One? If not, please explain why the figures are same in both the current and previous Navigant studies.
- (e) If the response to part (d) is yes, and in the absence of any information to the contrary, would it be reasonable to assume that the on-reserve delivery credits and distribution rate protection amounts will be shown as credits, similar to the RRP revenue, on the monthly cost of power invoices from the IESO? If not, please explain fully why not.

Issue 34 Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?**CME # 51****Ref: Exhibit D1, Tab 1, Schedule 3, Attachment 1**

- (a) The description in section 3.2.5 on page 11 for the Payments to Inergi appears to be identical to that in the EB-2013-0416 study but the dollar-weighted expense lead time has dropped from 44.40 days to 32.82 days. Please explain this significant reduction in days.

- (b) Please provide all the assumptions, data and calculations used to generate both the current estimate of 32.82 days and the corresponding information that resulted in the 44.40 days in the EB-2013-0416 study.

Issue 34 **Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?**

CME # 52

Ref: **Exhibit D1, Tab 1, Schedule 3, Attachment 1**

- (a) The description in section 3.2.6 on page 11 for the Consulting and Contract Staff appears to be identical to that in the EB-2013-0416 study but the dollar-weighted expense lead time has dropped from 80.15 days to 1.91 days. Please explain this significant reduction in days.
- (b) Please provide all the assumptions, data and calculations used to generate both the current estimate of 1.91 days and the corresponding information that resulted in the 80.15 days in the EB-2013-0416 study.

Issue 34 **Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?**

CME # 53

Ref: **Exhibit D1, Tab 1, Schedule 3, Attachment 1**

- (a) The description in section 3.2.7 on page 11 for the Miscellaneous OM&A appears to be identical to that in the EB-2013-0416 study but the dollar-weighted expense lead time has dropped from 63.60 days to 28.09 days. Please explain this significant reduction in days.
- (b) Please provide all the assumptions, data and calculations used to generate both the current estimate of 28.09 days and the corresponding information that resulted in the 63.60 days in the EB-2013-0416 study.

Issue 34 **Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?**

CME # 54

Ref: **Exhibit D1, Tab 1, Schedule 3, Attachment 1**

- (a) For each of sections 3.25, 3.26 and 3.27, please explain why the results based on 2014 data is expected to be more in line with projections for the 2018 through 2022 period than those based on 2012 data filed in EB-2013-0416.

Issue 34 Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?

CME # 55

Ref: Exhibit D1, Tab 1, Schedule 3, Attachment 1

- (a) Please provide all the data, assumptions and calculations that result in the interest expense lead days of -1.93 noted in Section 3.4 on page 12.
- (b) Please provide all the data, assumptions and calculations that result in the PILS expense lead time of 13.67 days noted in Section 3.5 on page 12.

Issue 34 Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?

CME # 56

Ref: Exhibit D1, Tab 1, Schedule 3, Attachment 1

- (a) Please provide the expense lead days calculation based on the long-term debt issuance and amounts forecast for 2018, as shown in Exhibit D2, Tab 2, Schedule 6, Updated, page 6. Please show all calculations used to arrive the expense lead days.

Issue 34 Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?

CME # 57

Ref: Exhibit D1, Tab 1, Schedule 3, Attachment 1

- (a) Please confirm that Hydro One is required to pay corporate income taxes on a monthly basis. If this cannot be confirmed, what is the frequency of payment required?
- (b) Please confirm that the monthly payments from Hydro One are due on the last day of the month. If this cannot be confirmed, please explain when payment is due.
- (c) Was the statutory approach used to determine the corporate tax lag? If not, why not?

Issue 34 Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?

CME # 58

Ref: Exhibit D1, Tab 1, Schedule 3, Attachment 1

- (a) Please provide all the data, assumptions and calculations that were used to determine each of the HST lead times shown in Table 8.

Issue 34 Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?

CME # 59

Ref: Exhibit D1, Tab 1, Schedule 3, Attachment 1

- (a) Is Hydro One proposing to calculate the working capital requirement as 7.70% of the sum of the cost of power and OM&A in each of 2018 through 2022, or is Hydro One proposing to calculate the working capital requirement based on the forecast costs shown in each line applied to the net lag days for each year as shown in Tables 9 through 13?

Issue 34 Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?

CME # 60

Ref: Exhibit D1, Tab 1, Schedule 3, Attachment 1

- (a) Section 5.1.4 PILS on page 17 states that the PILS lead time (13.67) days is consistent with the PILS lead time calculations for other utilities across Ontario. Please provide the most recent PILS lead time calculations for other utilities across Ontario to which this refers.

Issue 34 Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?

CME # 61

Ref: Exhibit D1, Tab 1, Schedule 3

Table 1 shows a forecast of the cost of power for each of 2018 through 2022.

- (a) Where in the evidence has Hydro One provided the calculation of the cost of power figures shown in this table for each of the years broken down into the various components of the charges (cost of electricity, transmission rates, RRRP, etc.)?
- (b) If Hydro One has not provided live Excel spreadsheets that show the calculation of the cost power, please provide such spreadsheets that show the billed energy consumption, the adjustment to purchased energy and the costs broken out into each of the components in the cost of power including power purchased (split between RPP and non-RPP volumes), wholesale market service charges, transmission network charges, transmission connection charges, rural rate assistance, smart meter entity charges and any other components of the cost of power that may be included. Please show the volumes and rates used in the various calculations.
- (c) Please provided updated live Excel spreadsheets that reflect current power purchased rates (for RPP and non-RPP) for electricity, transmission network and connection rates, rural rate assistance, etc. that reflect changes are now included in rates post July 1, 2017, including the transmission rates that result from the EB-2016-0160 decision. Please also include all assumptions used to forecast rates for each of 2018 through 2022 based on the now current 2017 rates, including assumptions for transmission rates and any other rates that are expected to change before 2018.

- (d) Based on the response to part (c) above, please provide updated versions of Tables 1, 2, 3 and 4. Please also include any other updates, such as to OM&A, cost of long-term debt, PILs, etc. that reflect the updated blue page evidence and the reduction in OM&A costs provided in Exhibit Q.

Issue 36 **Are the proposed timing and methodology for determining the return on equity and short-term debt prior to the effective date of rate implementation appropriate?**

Issue 37 **Is the forecast of long term debt for 2018 and further years appropriate?**

CME # 62

Ref: **Exhibit D1, Tab 2, Schedule 1, Updated
Exhibit Q**

- (a) Based on the updated cost of capital that reflects the Board-approved return on equity and short-term debt and the actual long-term debt issued in 2017 and now forecast for 2018, please provide updates to all relevant schedules and tables, including the tables in Exhibit D, Tab 2, Schedule 2, and Exhibit D2, Tab 2, Schedule 2.
- (b) Please confirm that Hydro One is not proposing any changes for the return on equity or the short-term debt rate in 2019 or 2020 relative to that used for 2018. If this cannot be confirmed, please explain fully.
- (c) Please confirm that Hydro One is not proposing to any changes for the long-term debt rate for 2019 or 2020 relative to the forecast approved for those years as part of the current application. If this cannot be confirmed, please explain fully.
- (d) Are there any changes to the long-term debt rates for 2019 and 2020 as a result of the updates provided in Exhibit Q? If yes, please provide a table for each year that shows the difference and fully explain all changes.

Issue 36 **Are the proposed timing and methodology for determining the return on equity and short-term debt prior to the effective date of rate implementation appropriate?**

Issue 37 **Is the forecast of long term debt for 2018 and further years appropriate?**

CME # 63

Ref: **Exhibit D1, Tab 2, Schedule 1, Updated**

Hydro One is proposing to update the cost of capital parameters for the 2021 and 2022 revenue requirements in the fall of 2020 when the OEB releases its 2021 cost of capital parameters.

- (a) Please explain why Hydro One believes that a cost of capital parameter update is appropriate or needed in the middle of a custom IR term.

- (b) Would the return on equity and the short-term debt rate used for 2022 be the same as the 2021 rates, similar to the approach for these rates in 2019 and 2020 by setting them equal to the 2018 rates? If not, why not and please explain fully the proposal for 2022.
- (c) Is Hydro One proposing to set the long-term debt rate for 2022 equal to the 2021 forecast rate, or will Hydro One be providing a new forecast for the long-term debt rate for 2022 as part of the cost of capital parameter updates proposed for the fall of 2020?
- (d) What other components of the revenue requirement, or the determination of rates, is Hydro One proposing to update in the fall of 2020 for the 2021 and 2022 revenue requirements and the determination of rates?
- (e) How does Hydro One propose to deal with the overlap between the inflation rate used in the Custom IR and the change in the cost of capital parameters to avoid double counting the impact of changes in interest rates in the inflation rate?

Issue 37 Is the forecast of long term debt for 2018 and further years appropriate?

CME # 64

**Ref: Exhibit D1, Tab 2, Schedule 2, Updated
 Exhibit D2, Tab 2, Schedule 2
 Exhibit Q**

- (a) Please update Tables 2, 3 and 4 in Exhibit D1, Tab 2, Schedule 2, Updated to reflect the updated figures referenced in Exhibit Q for the actual long-term debt issuances in 2017 and the forecast for 2018.
- (b) Please provide updated versions of Exhibit D2, Tab 2, Schedule 2, pages 5 and 6, showing the cost of long-term debt for each of 2017 and 2018.

Exhibit E – Calculation of Revenue Deficiency or Sufficiency

Issue 3 Is the overall increase in the distribution revenue requirement from 2018 to 2022 reasonable?

CME # 65

Ref: Exhibit E1, Tab 1, Schedule 1, Updated

- (a) Please update all of the tables in Schedule 1, along with the Revenue Requirement Workform, to reflect any changes made as a result of the responses to the interrogatory responses, and/or any updates or revisions made prior to the filing of the interrogatory responses.

Issue 45 Are the proposed other revenues for 2018 – 2022 appropriate?**CME # 66**

Ref: **Exhibit E1, Tab 1, Schedule 2, Updated**
 Exhibit A, Tab 3, Schedule 2, Updated

- (a) Please explain how the external revenues shown in Table 2 in Exhibit E1, Tab 1, Schedule 2, Updated are taken into account the Revenue Cap Index proposed by Hydro One in Exhibit A, Tab 3, Schedule 2, Updated.
- (b) If the revenue cap index is independent of the external revenues, please explain if ratepayers receive any benefits related to the external revenues and the increases forecast for these revenues.

Issue 45 Are the proposed other revenues for 2018 – 2022 appropriate?**CME # 67**

Ref: **Exhibit E1, Tab 1, Schedule 2, Updated**

- (a) Please update the 2017 bridge year column in Table 3 to reflect actual year-to-date information for the latest period available in 2017 and the forecast for the remainder of the year.
- (b) Based on the year-to-date information provided for 2017 in part (a) above, please provide the year-to-date figures in the same level of detail as shown in Table 3 for the corresponding period in 2016.

Issue 45 Are the proposed other revenues for 2018 – 2022 appropriate?**CME # 68**

Ref: **Exhibit E1, Tab 1, Schedule 2, Updated**

The evidence states (page 9) that late payment revenue is expected to increase over the planning period as the customer base increases, as outlined in Table 4. However, as shown in the updated version of Table 4, late payment charges are forecast to drop from \$17 million in 2016 to \$12.8 million in 2017, and then increase by about \$200,000 per year through 2022.

- (a) Please explain the significant drop in late payment charges in 2017 relative to 2016.
- (b) If the reduction is related to the reduction in the commodity cost of power that became effective July 1, 2017, please explain and quantify how Hydro One has estimated the reduction in late payment charges, and the change in OM&A costs related to the recovery of late payments.
- (c) Does the late payment revenue and the OM&A costs associated with the recovery of late payments include an estimate of the impact of the introduction of distribution rate protected residential customers and the delivery credit for on-reserve customers in Bill 132, *Fair Hydro Act*, 2017? If not, please explain why not. If yes, please provide the assumptions used and quantify how Hydro One has estimated the reduction in late payment charges and the change in OM&A costs related to the recovery of late payments.

Issue 45 Are the proposed other revenues for 2018 – 2022 appropriate?**CME # 69****Ref: Exhibit E1, Tab 1, Schedule 2, Updated**

On page 13, Hydro One indicates that it is proposing to increase the joint use rates based on the inflation factor less the proposed stretch factor as described in Exhibit A, Tab 3, Schedule 2.

- (a) Is Hydro One proposing to increase the joint use rates in 2019 through 2022 by the inflation factor less the stretch factor? If not, why not?
- (b) Is Hydro One proposing to increase any other rates included in external revenues to take into account the inflation factor less the stretch factor? If not, why not?

Issue 46 Is the load forecast methodology including the forecast of CDM savings appropriate?**CME # 70****Ref: Exhibit E1, Tab 2, Schedule 1**

The evidence states (page 15) that Hydro One uses three different forecasting models for the 19 rate classes shown.

- (a) Is there a different model within each of the three different methods used by Hydro One (monthly econometric, annual econometric, end use) for each of the 19 rate classes or is there one model (as shown in Appendices A, B and C) for each of the methods for the total of the 19 rate classes?
- (b) If this is a model for each of the 19 rate classes, please provide a table for each of the rate classes and a table for the sum of the forecasts for the 19 rate classes that shows the annual forecast for each of 2018 through 2022 from each of the three methods (monthly econometric, annual econometric, end use) and the forecast ultimately used by Hydro One in this application.
- (c) Please explain fully how Hydro One determined its forecast used in this application based on the three forecasting methodologies set out in its evidence. For example, did Hydro One do a weighted average of the three methods (as adjusted for CDM) and/or did it make some other adjustments to arrive at the final forecast?
- (d) If there is only one model used for each of the methods (as implied by the Appendices A, B & C), please explain fully how Hydro One takes the overall forecast and breaks it down into forecasts for each of the 19 rate classes. Please provide all assumptions and calculations used.

Issue 47 Are the customer and load forecasts a reasonable reflection of the energy and demand requirements for 2018 – 2022?**CME # 71****Ref: Exhibit E1, Tab 2, Schedule 1**

The evidence indicates that the annual econometric model uses relative energy price.

- (a) Please confirm that the relative energy price is electricity as compared to natural gas. If this cannot be confirmed, please explain fully what the relative energy price is.
- (b) Please confirm that the Hydro One forecast takes into account the increase in natural gas prices due to the addition of cap & trade related charges effective January 1, 2017? If this cannot be confirmed, please explain.
- (c) Please confirm that the Hydro One forecast takes into account the reduction in electricity prices that have resulted from the *Fair Hydro Act*, including changes to the commodity cost and the introduction of distribution rate protected residential customers and the delivery credit for on-reserve customers? If this cannot be confirmed, please explain.

Issue 47 Are the customer and load forecasts a reasonable reflection of the energy and demand requirements for 2018 – 2022?**CME # 72****Ref: Exhibit E1, Tab 2, Schedule 1**

- (a) The evidence indicates (page 16) that the annual econometric model used for embedded distribution utility customers uses energy prices. Please confirm that the forecast for natural gas prices and electricity prices reflect the adjustments noted in the previous interrogatory. If they do not, please explain fully.

Issue 47 Are the customer and load forecasts a reasonable reflection of the energy and demand requirements for 2018 – 2022?**CME # 73****Ref: Exhibit E1, Tab 2, Schedule 1, and Appendix 2-IB**

- (a) Please confirm that the difference in the Hydro One Distribution load for 2018 shown in Table 3 of 36,019 GWh and the figure of 33,957 GWh shown in Appendix 2-IB is related only to the loss factor. If this cannot be confirmed, please explain the difference between the two figures.

Issue 47 Are the customer and load forecasts a reasonable reflection of the energy and demand requirements for 2018 – 2022?**CME # 74****Ref: Exhibit E1, Tab 2, Schedule 1**

- (a) Are the number of customers shown in Table E.4 based on monthly averages, average of beginning of the year and end of the year, mid-point, or some other methodology?
- (b) Based on the latest month of actual data available, please provide the actual number of customers for this month in 2017 and the figures for the corresponding month in 2016, in the same level of detail as shown in Table E.4.
- (c) Please explain why Hydro One is forecasting a decrease of more than 500 R1 customers in 2018, despite this class growing by nearly 8,000 per year between 2012 and 2016.
- (d) Please explain why Hydro One is forecasting a decrease of more than 2,200 R2 customers in 2018, despite this class growing by more than 500 customers per year since 2015.
- (e) Please explain why Hydro One is forecasting an increase of more than 11,000 UR customers in 2018 when growth in the number of customers has only been about 3,000 per year since 2015.
- (f) What is the approximate distribution revenue impact of the Hydro One forecast of customers in the R1, R2 and UR rate classes as compared to the result if the 2018 forecast increase in these three rate classes was in the same proportion as the increases forecast between 2016 and 2017?
- (g) Please explain the reduction in General Service – Energy Billed customers in 2018, 2019 and 2020.

Issue 47 Are the customer and load forecasts a reasonable reflection of the energy and demand requirements for 2018 – 2022?**CME # 75****Re: Exhibit E1, Tab 2, Schedule 1**

- (a) Please explain why the number of customers was not used as an explanatory variable in the monthly econometric equation shown in Appendix A.
- (b) Please explain why heating and cooling degree days were not used as explanatory variables in the monthly econometric equation shown in Appendix A.
- (c) Please explain why the number of customers was not used as an explanatory variable in the annual econometric equation shown in Appendix B.
- (d) Please provide the expected annual growth rate for each of the commercial, industrial and agricultural sectors that were used in the end use models described in Appendix C and provide the GDP growth rates that were used to estimate these expected annual growth

rates. Please also show how these GDP figures tie into the forecast values shown at page 5 of Attachment 1.

Issue 47 **Are the customer and load forecasts a reasonable reflection of the energy and demand requirements for 2018 – 2022?**

CME # 76

Ref: **Exhibit E1, Tab 2, Schedule 1, Appendix E**

- (a) Please provide a version of Table E.1 that shows the comparison of the forecasts for previous rate submissions with actual consumption based on each of the three methodologies used by Hydro One: monthly econometric model, annual econometric model, and end use model.

Issue 47 **Are the customer and load forecasts a reasonable reflection of the energy and demand requirements for 2018 – 2022?**

CME # 77

Ref: **Exhibit E1, Tab 2, Schedule 1**

- (a) Please update Tables E.2 and E.3 to reflect the most recent forecasts available for each of the sources shown in Table E.2.

Issue 47 **Are the customer and load forecasts a reasonable reflection of the energy and demand requirements for 2018 – 2022?**

CME # 78

Ref: **Exhibit E1, Tab 2, Schedule 1**

- (a) Please explain fully, with all assumptions and calculations shown, how Hydro One has divided the total forecast sales into the amounts shown for each rate class in Table E.6. Please provide a live Excel spreadsheet if possible that shows the calculations and data used.

Issue 47 **Are the customer and load forecasts a reasonable reflection of the energy and demand requirements for 2018 – 2022?**

CME # 79

Ref: **Exhibit E1, Tab 2, Schedule 1**

- (a) Please provide all the assumptions and calculation used to determine the kW forecast figures for 2017 through 2022 for each of the rate classes shown in Table E.8a. Please provide a live Excel spreadsheet if possible that shows the calculations and data used.

Issue 47 Are the customer and load forecasts a reasonable reflection of the energy and demand requirements for 2018 – 2022?**CME # 80****Ref: Exhibit E1, Tab 2, Schedule 1, Attachment 1**

- (a) For each of the following variables shown on page 2 of Attachment 1, please explain how the forecasted figures have been derived:
 - (i) Ontario Disposable Income
 - (ii) Ontario Commercial GDP
 - (iii) Ontario Industrial GDP
 - (iv) Ontario Number of Households
- (b) Please explain the relationship between the commercial and industrial GDP figures shown on page 2 with the figures shown on page 5. For example, do the industrial GDP figures shown on page 2 include the manufacturing and mining figures shown on page 5, while the commercial GDP figures shown on page 2 include services, construction and utilities?
- (c) What is the source(s) of the GDP forecast figures by industry shown on page 5. If the forecasts are derived from external sources, please update the figures on page 5 to reflect the most recent forecasts now available.
- (d) How has the residential building permit index (page 3) been calculated and specifically how has the forecast for 2017 and 2018 been determined. Please provide all external information used to calculate this index and to forecast it
- (e) Why is there no forecast for the residential building permit index for 2019 through 2022? What values has Hydro One used for this variable in 2019 through 2022
- (f) Please explain why the monthly Ontario GDP figures shown on page 4 do not match the annual Ontario GDP figures shown on page 2.
- (g) Why is there no monthly Ontario GDP forecast beyond 2018? What figures have Hydro One used for 2019 through 2022 for the monthly econometric model?
- (h) Does the monthly retail load used in the monthly econometric model (Appendix A) equal the annual retail load used in the annual econometric model (Appendix B)? Please confirm that the figures used in the annual econometric model for the retail load are those found on page 6 of Attachment 1. If both of these cannot be confirmed, please provide a live Excel spreadsheet that includes the monthly retail load and the annual retail load used in the models shown in Appendix A and B.
- (i) Where is the data shown on page 7 (weather-corrected gross retail load, including losses, in Av MW) used in the econometric models?
- (j) Please show how each of the electricity and natural gas prices shown on pages 8 and 9 of Attachment 1 have been calculated.

- (k) Please show how the impact of the Fair Hydro plan and the cap & trade plan have been factored into the forecast for 2017 through 2022.
- (l) Please explain why the electricity price remains flat for 2018 through 2022, while the natural gas price continues to rise over the same period.

Exhibit F – Deferral and Variance Accounts

Issue 57 Are the proposed amounts, disposition and continuance of Hydro One's existing deferral and variance accounts appropriate?

CME # 81

Ref: Exhibit F1, Tab 1, Schedule 1, Updated

- (a) Please confirm that the balance in Account 1533 – Distribution Generation – Provincial – Variance Accounts is a credit to ratepayers of \$57.7 million at the end of 2016 and is forecast to increase to \$58.3 million at the end of 2017.
- (b) Please explain more fully why Hydro One is not proposing to dispose of the balance in this account as part of the current proceeding. In particular, does Hydro One expect this credit balance to decline as it continues to record the costs eligible for direct benefit treatment?
- (c) Based on the response to part (b) please provide the forecasted balance in this account at the end of each of 2018, 2019, 2020, 2021 and 2022.

Issue 57 Are the proposed amounts, disposition and continuance of Hydro One's existing deferral and variance accounts appropriate?

CME # 82

Ref: Exhibit F1, Tab 1, Schedule 1, Updated

- (a) The amount shown in Table 20 for Account 1508 – Other Regulatory Assets – Sub Account – Long-Term Load Transfer (LTLT) Rate Impact Mitigation Deferral Account is \$0.0 at the end of both 2016 and 2017.
- (b) What is the forecast amount to be added to this account on annual basis for each of 2017 through 2022?

Issue 57 Are the proposed amounts, disposition and continuance of Hydro One's existing deferral and variance accounts appropriate?

CME # 83

Ref: Exhibit F1, Tab 2, Schedule 1, Updated

If new distribution rates are not implemented and/or effective January 1, 2018, please provide Hydro One's proposal with respect to each of the following:

- (a) Will the proposed recovery be on a straight-line pattern of the remainder of the period from when rates are implemented to the end of 2022, a period that will be shorter than 5 years?
- (b) If the disposition period begins later than January 1, 2018, is Hydro One requesting additional interest on the balances for the period January 1, 2018 to the implementation date?
- (c) Has Hydro One considered asking the OEB to deal with the recovery of the balances in the accounts requested for recovery, separate from the rates application, so that rate riders could be in place for January 1, 2018, thus spreading the costs out over the full 5 year period, reducing the level the rate adder?

Issue 57 Are the proposed amounts, disposition and continuance of Hydro One's existing deferral and variance accounts appropriate?

CME # 84

Ref: Exhibit F1, Tab 2, Schedule 1, Attachment 1, Updated

The note at the end of the schedule indicates that the figures shown in the schedule do not include interest improvement during the recovery period.

- (a) Will Hydro One continue to add interest to the December 31, 2017 balance during the proposed 5 year recovery period?
- (b) If the response to part (a) is yes, please provide the additional interest cost for the 5 year proposal by year (2018 through 2022) as compared to the option of recovering the balances over 1 year and over 2 years.

Issue 57 Are the proposed amounts, disposition and continuance of Hydro One's existing deferral and variance accounts appropriate?

CME # 85

Ref: Exhibit F1, Tab 3, Schedule 1, Update

- (a) On May 18, 2017, the OEB released the Report of the Ontario Energy Board – Regulatory Treatment of Pension and Other Post-Employment Benefits (OPEBS) Costs. Based on this Report, is Hydro One proposing any changes to the Pension Cost Deferral Account (page 2) or the Other Post-Employment Benefit ("OPEB") Cost Deferral Account (page 6). Please explain fully any changes proposed, or why no changes are required.

Issue 57 Are the proposed amounts, disposition and continuance of Hydro One's existing deferral and variance accounts appropriate?

CME # 86

Ref: Exhibit F1, Tab 3, Schedule 1, Updated

- (a) Given that changes to the OEB cost assessment model took place in 2016, please explain why the OEB Cost Differential Account (page 3) needs to be continued for the 2018 through 2022 period.

Exhibit G – Cost Allocation

Issue 49 Are the inputs to the cost allocation model appropriate and are costs appropriately allocated?

CME # 87

Ref: Exhibit G1, Tab 1, Schedule 1

- (a) Are there any changes or modifications to the cost allocation proposed by Hydro One based on the *Fair Hydro Act*? Please explain fully.

Issue 56 Do the costs allocated to acquired utilities appropriately reflect the OEB's decisions in related Hydro One acquisition proceedings?

CME # 88

Ref: Exhibit G1, Tab 2, Schedule 1

The evidence (Table 3) indicates that there are 7 Large Use customers from the Acquired Utilities that would be merged into Hydro One's Sub Transmission Class.

- (a) Please provide the revenue associated with these 7 customers (in aggregate) that Hydro One expects to recover from these customers based on its proposal to move the customers to the Sub Transmission Class.
- (b) Please provide the total costs that would be allocated to these 7 customers (in aggregate), if Hydro One were to propose an Acquired Utility Large Use class (AULU), similar to the proposal for the AUGe and AUGd classes.
- (c) How has Hydro One allocated the costs associated with these 7 Large Use customers to the Sub Transmission class in its proposal?

Issue 56 Do the costs allocated to acquired utilities appropriately reflect the OEB's decisions in related Hydro One acquisition proceedings?

CME # 89

Ref: Exhibit G1, Tab 3, Schedule 1

- (a) The evidence indicates that Hydro One has filed a cost allocation model for the 2021 revenue requirement that has been allocated to all the existing rate classes and the new acquired utility rate classes.
- (b) Please explain how Hydro One has ensured that the resulting rates for the acquired utility customers are reflective of the costs to serve those acquitted customers, as stated by the Board in each of EB-2013-0187, EB-2014-0244 and EB-2014-0213.

Exhibit H – Rate Design

Issue 51 Are the revenue-to-cost ratios for all rate classes over the 2018 – 2022 period appropriate?

CME # 90

Ref: Exhibit H1, Tab 1, Schedule 1

- (a) Please confirm that the columns labelled “Revenue Requirement” in each of Tables 5 through 9 does not show the revenue requirement allocated to each rate class, but rather shows the proposed revenue recovery from each of the rate classes.

Issue 51 Are the revenue-to-cost ratios for all rate classes over the 2018 – 2022 period appropriate?

CME # 91

Ref: Exhibit H1, Tab 1, Schedule 1

- (a) Please indicate which of the rate classes shown in Table 5 have customers that qualify for either the Distribution Rate Protection (“DRP”) program or the First Nations On-Reserve Delivery Credit (“FNORDC”) as set out under the *Fair Hydro Act*.
- (b) For each of the rate classes identified in part (a) above, please break down the revenue forecast from each of the rate classes in 2018 between the amount recovered through rates and the amounts that will be funded through other means as a result of the DRP and FNORDC under the *Fair Hydro Act*.
- (c) If the revenue to cost ratio for each of the rate classes that have customers that are impacted by the DRP and FNORDC were set to 1.0 for 2018, please provide a breakdown of the revenue recovered from each rate class between the amount recovered through rates and the amounts that will be funded through other means as a result of the DRP and FNORDC under the *Fair Hydro Act*.
- (d) How would any surplus or deficit in the revenue requirement that may result as a result of setting the revenue to cost ratios for the impacted rate classes noted in part (c) above to 1.0 be used to adjust the revenue to cost ratios for other rate classes?

Issue 51 Are the revenue-to-cost ratios for all rate classes over the 2018 – 2022 period appropriate?

CME # 92

Ref: Exhibit H1, Tab 1, Schedule 1

- (a) Table 10 shows that in 2021 the fixed and volumetric revenue split for the GSe (20%/80%) and UGe (24%/76%) are significantly different from the AUGe (39%/61%) and AGSe (52%/48%). Does Hydro One have any plans to move these ratios more in line with one another? Please explain fully.

- (b) Table 10 shows that in 2021 the fixed and volumetric revenue split for the GSd (5%/95%) and UGd (7%/93%) are significantly different from the AUGd (23%/77%) and AGSd (21%/79%). Does Hydro One have any plans to move these ratios more in line with one another? Please explain fully.

Issue 54 Are the proposed specific service charges for miscellaneous services over the 2018 – 2022 period reasonable?

CME # 93

Ref: Exhibit H1, Tab 2, Schedule 3

Table 1 (Schedule 11-1 Specific Service Charges) appears to show two different approaches to the setting of specific service charges over the 2018 through 2022 period. Many charges remain unchanged for each of the years in the 2018 through 2022 period, while some other charges are increasing over the 2018 through 2022 period.

- (a) What is the basis for the increases shown for those charges that increase over the noted period? Is the increases proposed related only to increases in labour costs?
- (b) Please explain why no increases are reflected for many of the specific service charges shown over the noted period. Do these specific service charges use minimal amounts of labour and as a result, labour increases do not significantly impact the cost of the services?

Issue 54 Are the proposed specific service charges for miscellaneous services over the 2018 – 2022 period reasonable?

CME # 94

Ref: Exhibit H1, Tab 2, Schedule 3, Appendix

On page 10, Hydro One states that:

Hydro One proposes to charge customers flat fees over the 21 2018-2022 period in order to align with Hydro One's customer-friendly policies and 22 avoid customer confusion. Furthermore, implementing changes to the following systems 23 and processes on an annual basis would be costly: Hydro One's Customer Information 24 System ("CIS"), customer correspondence, Hydro One's website and self-service portal, 25 agent training, and internal work instructions.

- (a) In light of the above statement, please indicate why a number of the specific service charges are proposed to increase each year, while others are held constant.

Issue 54 Are the proposed specific service charges for miscellaneous services over the 2018 – 2022 period reasonable?**CME # 95****Ref: Exhibit H1, Tab 2, Schedule 3, Appendix A**

Hydro One indicates that the proposed fees are an average of the cost to provide the service over the 2018-2022 period, as indicated by the Time Study, rounded down to the nearest dollar. This approach is reflected, as an example, in the figures shown in Table 9.

However, a number of tables in Appendix A appear to show costs over the 2018 through 2022 period, and when rounded down to the near dollar, are in excess of the proposed charge. As an example, Table 1 (Statement of Account) shows costs of \$14.33 in 2018, rising to \$15.21 in 2022, yet the proposed charge has been set at \$13.00 throughout this period.

- (a) For each table in Appendix A where the proposed charge is less than the calculated total charge (rounded down to the nearest dollar) averaged over the 2018 through 2022 period, please explain why the proposed charge should not be increased to recover the expected costs over the 2018 through 2022 period.
- (b) For each table in Appendix A where the proposed charge is less than the calculated total charge averaged over the 2018 through 2022 period and rounded down to the nearest dollar, please provide an estimate of the incremental revenue that would be generated in each year (2018 through 2022) if the proposed charge was set equal to the average total charge over the 2018 through 2022 period, and rounded down to the nearest dollar.

Issue 4 Are the rate and bill impacts in each customer class in each year in the 2018 to 2022 period reasonable?**CME # 96****Ref: Exhibit H1, Tab 3, Schedule 1**

- (a) Are the rate riders for any of the rate classes calculated in Table 2 impacted by the Distribution Rate Protection program and/or the First Nations On-Reserve Delivery Credit as set out in the *Fair Hydro Act*? Please explain fully.

Issue 4 Are the rate and bill impacts in each customer class in each year in the 2018 to 2022 period reasonable?**CME # 97****Ref: Exhibit H1, Tab 3, Schedule 1 & Exhibit H1, Tab 4, Schedule**

- (a) Please provide a version of Table 1 (Tab 4) that shows the distribution and total bill impacts by rate class if the rate riders calculated in Table 3 (Tab 3) were calculated based on a disposition period of 1 year instead of 5 years as proposed by Hydro One.

Issue 4 **Are the rate and bill impacts in each customer class in each year in the 2018 to 2022 period reasonable?**

CME # 98

- (a) Please provide any prospectuses or reports produced to shareholders or in connection with the sale of additional shares in the company.

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