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January 24, 2018

Reply To: Thomas Brett  
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Our File No. 173431

**VIA RESS, EMAIL AND COURIER**

Ontario Energy Board  
2300 Yonge Street  
27th Floor  
Toronto, Ontario  
M4P 1E4

Attention: Kirsten Walli,  
Board Secretary

Dear Ms. Walli:

**Re: EB-2017-0049: Hydro One Networks Inc., 2018-2022 Distribution Custom IR Application**

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Please find enclosed herewith BOMA's Interrogatories ("IRs") in this case. The IRs are in two parts. Part 1 on pages 1 through 8 contain a list of 59 questions. Part 2, which begins on page 8 and goes to page 60 contains a list of 161 questions.

Yours sincerely,

**FOGLER, RUBINOFF LLP**

Thomas Brett

TB/dd

Encls.

cc: All Parties (*via email*)

**ONTARIO ENERGY BOARD**

**Hydro One Networks Inc.  
2018 Rates Application**

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**INTERROGATORIES OF  
BUILDING OWNERS AND MANAGERS ASSOCIATION, GREATER TORONTO  
("BOMA")**

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January 24, 2018

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**Counsel for BOMA**

## **Interrogatories of BOMA**

### **A. GENERAL**

1. Has Hydro One responded appropriately to all relevant OEB directions from previous proceedings?

#### **BOMA 1**

*Reference: EB-2017-0049, Exhibit A-3-2, Attachment 1, Pages 1- 49*

Interrogatory: What conclusions has Hydro One drawn from the Total Factor Productivity Study and what if any changes has it made to its operations as a result?

#### **BOMA 2**

*Reference: EB-2017-0049, Exhibit C1, Tab 2, Schedule 1, Attachment 7, Page 1 of 10*

Interrogatory: Has Hydro One benchmarked its compensation to comparable companies? If so which and what are the results?

#### **BOMA 3**

*Reference: Exhibit C1, Tab 2, Schedule 1*

Interrogatory: Prior to the break-up of Ontario Hydro, vegetation management was a significant program for the Distribution System Division. When was vegetation management program reduced and what were the impacts of doing so on reliability?

2. Has Hydro One adequately responded to the customer concerns expressed in the Community Meetings held for this application?
3. Is the overall increase in the distribution revenue requirement from 2018 to 2022 reasonable?
4. Are the rate and bill impact in each customer class in each year in the 2018 to 2022 period reasonable?
5. Are Hydro One's proposed rate impact mitigation measures appropriate and do any of the proposed rate increases require rate smoothing or mitigation beyond what Hydro One has proposed?
6. Does Hydro One's First Nation and Métis Strategy sufficiently address the unique rights and concerns of Indigenous customers with respect to Hydro One's distribution service?

### **B. CUSTOM APPLICATION**

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

8. Is the proposed industry-specific inflation factor, and the proposed custom productivity factor, appropriate?
9. Are the values for the proposed custom capital factor appropriate?
10. Are the program-based cost, productivity and benchmarking studies filed by Hydro One appropriate?
11. Are the results of the studies sufficient to guide Hydro One's plans to achieve the desired outcomes to the benefit of ratepayers?
12. Do these studies align with each other and with Hydro One's overall custom IR Plan?
13. Are the annual updates proposed by Hydro One appropriate?
14. Is Hydro One's proposed integration of the Acquired Utilities in 2021 appropriate?
15. Is the proposed Earnings/Sharing mechanism appropriate?
16. Are the proposed Z-factors and Off-Ramps appropriate?

#### **C. OUTCOMES, SCORECARD AND INCENTIVES**

17. Does the application adequately incorporate and reflect the four outcomes identified in the Rate Handbook: customer focus, operational effectiveness, public policy responsiveness, and financial performance?
18. Are the metrics in the proposed additional scorecard measures appropriate and do they adequately reflect appropriate outcomes?
19. Are the proposals for performance monitoring and reporting adequate and do the outcomes adequately reflect customer expectations?
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?
21. Does the application adequately account for productivity gains in its forecasts and adequately include expectations for gains relative to external benchmarks?
22. Has the applicant adequately demonstrated its ability and commitment to manage within the revenue requirement proposed over the course of the custom incentive rate plan term?

#### **D. DISTRIBUTION SYSTEM PLAN**

23. Was the customer consultation adequate and does the Distribution System Plan adequately address customer needs and preferences?

#### **BOMA 4**

*Reference: Executive Presentation Day Transcript, page 49-50 and Exhibit B/Part B/ISD GP-31 (Prepaid Meters)*

Interrogatory: What customer consultations processes were included in the development of the Distribution System Plan? What were the results? Were customers in favour of the option informed that this would not alter the distribution charge? How will such meters be utilized under time of use scenarios?

#### **BOMA 5**

*Reference: Ampy - 5188A Single Phase Prepay kWh Meter, <https://www.jwsmartmeters.co.uk/Ampy%205188A>*

*The **Ampy 5188A** is a single-phase Pre-payment kWh **meter**. This **meter** works from a Magnetic card which offers a safe simple and effective solution for "pay as you go" electricity. This eliminates debts that may occur because of non-payments of bills. This technology is proving very effective in the leisure industries.*

Interrogatory: Has Hydro One researched the use of pre-payment meters in other jurisdictions. Which other jurisdictions are using them and for which customer groups? Has Hydro One compared the degree days effective in those jurisdictions to those in Ontario, particularly the degree days in customer locations where the predominance of Hydro One customers with non-payment issues live. Given that even the manufacturer cites the use of pre-payment meters in leisure industries, such as time share accommodation, marinas, campgrounds, why does Hydro One think that these meters address non-payment of bills.

#### **BOMA 6**

*Reference: (<https://www.theguardian.com/big-energy-debate/2014/sep/11/fuel-poverty-scandal-winter-deaths>)*

*In the UK the idea of powering up a water heater with a coin was common; however, the UK has a cause of death called "energy poverty". The social cost of fuel poverty is massive, and growing. In the winter of 2012/13, there were 31,000 extra winter deaths in England and Wales, a rise of 29% on the previous year. Around 30-50% of these deaths can be linked to being cold indoors. And not being able to heat one's home also takes a huge toll on health in general: those in fuel poverty have higher incidences of asthma, bronchitis, heart and lung disease, kidney disease and mental health problems.*

Interrogatory: Has Hydro One researched the health impacts of pre-payment meters?

## **BOMA 7**

*Reference: Exhibit B1-1-1, DSP Section 1.1, Page 8 of 23*

*A top priority for Large Customers is to improve power quality. To address this, Hydro One has created an OM&A program to assist Large Distribution Account customers with investigations to determine the source of the power quality issue they are experiencing. Furthermore, a capital power quality program has been incorporated into the plan.*

Interrogatory: Ontario Hydro's Marketing/Energy Management Branch implemented a Power Quality Program in the late 1980s. It was subsequently allocated to Hydro One after the demerger. Given that improving power quality is listed as a new initiative responding to customer needs identified in customer consultation, please indicate when power quality had ceased to be a program. How many customers had requested such assistance since that date and what advice was given to them?

## **BOMA 8**

*Reference: Exhibit B1-1-1, DSP Section 1.1, Page 8 of 23*

*The pole replacement program will be replacing 77,400 poles over the planning period to manage the volume of poles in poor condition.*

Interrogatory: How many such poles were replaced in the preceding 5 years, the 5 years before that, the five years before that and the five years before that. How many poles were replaced on an annual average basis during the decade prior to the demerger?

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?
25. Does the Distribution System Plan adequately reflect productivity gains, benefit sharing and benchmarking?
26. Does the Distribution System Plan address the trade-offs between capital and OM&A spending over the course of the plan period?
27. Has the distribution System Plan adequately addressed government mandated obligations over the planning period?

## **BOMA 9**

*Reference: EB-2017-0049, Exhibit A, Table 2, Schedule 2, Page 1 of 2.*

This exhibit lists and cites where in evidence Hydro One's record of compliance with recent OEB directions.

Interrogatory: Please provide a similar table listing government policy, directions and obligations either to Hydro One or to other agencies in the electricity sector that affect Hydro One's activities, citing the government direction, Hydro One's response and references to the evidence that confirm the direction has been followed.

28. Has Hydro One appropriately incorporated Regional Planning in its Distribution System Plan?

#### **BOMA 10**

*Reference: EB-2017-0049, Exhibit B1-1-1, DSP Section 1.2*

Interrogatory: Please provide a similar table to that of EB-2017-0049, Exhibit A, Table 2, Schedule 2 Page 1 of 2 demonstrating where and how the results of regional planning has been incorporated into its Distribution System Plan. Are any elements of any of the completed regional plans recommended to be implemented within the 5-year plan not included in the Distribution System Plan? If so, please indicate, why particularly given the choice of the DSP option.

29. Are the proposed capital expenditures resulting from the Distribution System Plan appropriate, and have they been adequately planned and paced?
30. Are the proposed capital expenditures for System Renewal, System Service, System Access and General Plant appropriately based on the Distribution System Plan?
31. Are the methodologies used to allocate Common Corporate capital expenditures to the distribution business appropriate?
32. Are the methodologies used to determine the distribution Overhead Capitalization Rate for 2018 and onward appropriate?

#### **E. RATE BASE & COST OF CAPITAL**

33. Are the amounts proposed for the rate base from 2018 to 2022 appropriate?
34. Are the inputs used to determine the working capital component of the rate base and the methodology used appropriate?
35. Is the proposed capital structure appropriate?
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?
37. Is the forecast of long term debt for 2018 and further years appropriate?

#### **F. OPERATIONS MAINTENANCE & ADMINISTRATION COSTS**

38. Are the proposed OM&A spending levels for Sustainment, Development, Operations, Customer Care, Common Corporate and Property Taxes and Rights Payments,

appropriate, including consideration of factors considered in the Distribution System Plan?

39. Do the proposed OM&A expenditures include the consideration of factors such as system reliability, service quality, asset condition, cost benchmarking, bill impact and customer preferences?

## **BOMA 11**

*Reference: Ref: Executive Presentation Day Transcript, page 44 - New Bill Design.*

*Mr. Pugliese indicated that Hydro One had just launched a new bill design.*

Interrogatory: Please provide a copy of the new bill. Was it tested on during the customer consultation process for the Distribution System Plan or in a separate research project? Please provide the results of consumer testing, the total cost of bill redesign including research and graphic design and the estimated impact on Customer Information System Costs in 2016 and 2017 as well as for the 5-year plan. Was there a business case developed for the redesign? Will customer service costs be reduced during the 5-year plan as result?

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)?
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)?
42. Is the updated executive compensation information filed by Hydro One in the distribution proceeding on December 21, 2017 consistent with the OEB's findings on executive compensation in the EB-2016-0160 Transmission Decision?
43. Are the methodologies used to allocate Common Corporate Costs and Other OM&A costs to the distribution business for 2018 and further years appropriate?

## **G. REVENUE REQUIREMENT**

44. Is Hydro One's proposed depreciation expense for 2018 and further years appropriate?
45. Are the proposed other revenues for 2018 – 2022 appropriate?

## **H. LOAD AND REVENUE FORECAST**

46. Is the load forecast methodology including the forecast of CDM savings appropriate?
47. Are the customer and load forecasts a reasonable reflection of the energy and demand requirements for 2018 – 2022?
48. Has the load forecast appropriately accounted for the addition of the Acquired Utilities' customers in 2021?



## **I. COST ALLOCATION AND RATE DESIGN**

49. Are the inputs to the cost allocation model appropriate and are costs appropriately allocated?
50. Are the proposed billing determinants appropriate?
51. Are the revenue-to-cost ratios for all rate classes over the 2018 – 2022 period appropriate?
52. Are the proposed fixed and variable charges for all rate classes over the 2018 – 2022 period, appropriate, including implementation of the OEB's residential rate design?
53. Are the proposed Retail Transmission Service Rates appropriate?
54. Are the proposed specific service charges for miscellaneous services over the 2018 – 2022 period reasonable?
55. Are the proposed line losses over the 2018 – 2022 period appropriate?
56. Do the costs allocated to acquired utilities appropriately reflect the OEB's decisions in related Hydro One acquisition proceedings?

## **J. DEFERRAL/VARIANCE ACCOUNTS**

57. Are the proposed amounts, disposition and continuance of Hydro One's existing deferral and variance accounts appropriate?
58. Are the proposed new deferral and variance accounts appropriate?
59. Is the proposal to discontinue several deferral and variance accounts appropriate?

1. ***Ref: Exhibit A, Tab 3, Schedule 2, Attachment 1; Total Factor Productivity Study, p14***

- (a) Please confirm that this study does not include econometric total cost benefit research notwithstanding the fact that the Board expressed a preference for econometric total cost benchmarking.
- (b) The Board requested HONI measure its total factor productivity over time, so as to be able to demonstrate constantly improving productivity to its customers and the OEB. Why has Power Engineering produced a study which introduces other

aspects of HONI's performance, reliability and safety? Please provide a copy of the RFP.

- (c) Does Power Engineering equate utility productivity as measured by a TFP study, which uses the outputs of kwh, kw and customer numbers, with utility performance, often measured by a utility scorecard, which contains indices of performance that are valued by customers such as reliability, customer service, and the like. Please explain fully.
- (d) Please confirm that benefits to employees, as opposed to increased value for customers, are not considered part of a customer scorecard, or a TFP study, or trend study.
- (e) Please indicate the Hydro One safety record in each year of the study period.
- (f) Has the definition of recorded industry changed over the period?

2. **Ref: *Ibid, p1***

- (a) Is definition of injury constant?
- (b) How are major event days defined? How many major event days were there in each year of the study?

3. **Ref: *Ibid***

- (a) The Board has also expressed utilities intent in being benchmarked against their peers. Why has HONI not done this for this case?

- (b) Does the exclusion of major event days not leave out resilience of the measured systems? Please discuss

4. **Ref:** *Ibid, p5*

- (a) While employee safety is important, it is not normally included in productivity studies, including TFP studies. What other aspects of utility performance, eg. customer service related performance, greenness, are not included?
- (b) Please confirm that the year 2002 was assigned a Total Factor Productivity ("TFP") of 1.0 (both unadjusted and adjusted) as indicative of its base year status for the study. The declines or increases shown on Table 1 are with reference to the previous year.
- (c) What has accounted for the volatility of TFP trend, both unadjusted and adjusted?

5. **Ref:** *Ibid, p9*

Have the safety and the reliability factors been included in determining the adjusted TFP?

6. **Ref:** *Ibid, p8*

Since 2010, the Ontario electricity industry has experienced five consecutive years of TFP declines. Did Power Engineering do any detailed analyses of the reasons for these declines? Was it part of your task?

7. **Ref:** *Ibid, p9; Importance of the Output Factors*

- (a) What do you mean by extended benefits? Please list all of the extended benefits that may affect the utility's performance.
- (b) Are there other electricity TFP studies of different companies that you have done, or are aware of, where the analysts have set the industry TFP at zero percent, or at a negative number?

8. **Ref:** *Ibid, p11*

- (a) Why, in your understanding, did PSE not support the exclusion of Hydro One and Toronto Hydro from the study for EB-2010-0379?
- (b) Why was the Electric Utility Construction Price Index ("EUCPI") suspended as an index in 2015?
- (c) Please provide a copy of the Handy Utilities index for electric distribution for 2014-2015. What states and large cities does the index include? What other regional cost indices are there? Please provide a list of them.
- (d) Are the reliability weights shown at Table 15, the percentage weights they are allotted in the calculation of the adjusted TPF?
- (e) Please show the calculation that alters column 2 to column 3, with the addition of the increase in safety.
- (f) Please do the similar calculation for Table 18.

- (g) Please provide the similar calculation for Table 19.

9. **Ref:** *Ibid, p12*

Preamble: *"Negative TFP trends do indicate that measured outputs are growing slower than inputs".*

- (a) Has growth in customers, kwh, or kw slowed over the period 2002-2015? Please provide the data for each year from 2002 to 2015, inclusive.
- (b) Please provide data on the age of Ontario's utility capital infrastructure over the period 2002 to 2015.
- (c) Is the age of Hydro One Distribution assets representative of Ontario industry's age of assets? To what extent? Please provide whatever data is available.
- (d) How compliant with increased regulatory standards or enhanced environmental standards are considered an adjustment to a productivity study or trend? Are they not part of the legal framework in which the utility operates?
- (e) What would OM&A impact be if average of non-management labour index the costs of non-management employees?

10. **Ref:** *Ibid, p17*

Please explain how the GDPIPI-Canada differs from the CPI.

11. **Ref:** *Ibid, p23*

Please explain what is meant by a "triangulated weighted average".

12. **Ref:** *Ibid, p27*

- (a) What are relative weights used for capital and OM&A in the Impact Quantity Index? Please explain fully.
- (b) Please show the actual calculation which determines the impact of adding safety and reliability figures to the change from normal TFP to the adjusted TFP.

13. **Ref:** *Ibid, p30*

What causes the five hundred percent increase from 2009 to 2010 in safety-related expenditures?

14. **Ref:** *Ibid, p29*

What was the rationale for using the funds spent on creating a safe working environment for its workers as a percentage of total spend? Please provide a description of the "safety measures" expenditures, capital and OM&A, shown separately, in each year.

15. **Ref:** *Ibid, p31*

- (a) What has been the number of major Event Days for Hydro One Distribution, in each of the years 2002 to 2016?
- (b) Please provide Table 11, showing SAIDI numbers in a separate additional column.

16. **Ref:** *Ibid, p36*

What would Table 17 look like if the Safety Record remained on the 2002 to 2017 record through 2017?

17. **Ref:** *Exhibit A, Tab 3, Schedule 1; Executive Summary*

- (a) p2 - Please provide the forecast percentage rate increase for each year over the period 2018 to 2022, commencing with the 2018 rates over existing 2017 rates.
  - (i) Please provide the derivation underlying calculations of the 4.7% as the 3.0% of the cited at lines 19 and 20.
  - (ii) Please provide the same data as in (i) for historical years 2017 over 2016, 2016 over 2015, 2015 over 2014, 2014 over 2013, and 2013 over 2012.
- (b) p23 - What are 2016 Actual Revenue Requirement relative to Board-approved Revenue Requirement?
- (c) What are the 2017 actual OM&A to date (September 30, 2017)? Extend revenue to date?
- (d) p5 – Please provide the derivation of the 4.2% reduction in capital expenditures from 2017 Board-approved levels. What is the year to date and current forecast 2017 actual capital expenditures?
- (e) Please confirm that for residential customers in 2018, the distribution rate is determined to the extent of 75% by customer charge, which does not vary with electricity consumption on demand.

(f) Please show the corresponding bill increases for section (a) above.

18. **Ref: *Ibid, p14 of 36; Customer Feedback re Proposal***

Plan B vs. Plan C – you say would likely result in a significantly reduced reliability. Please indicate by what percentage.

19. **Ref: *Ibid, p15***

For each of Plans A, B, and C, and Plan B (modified):

- (a) What are the accumulate rate increases over 2017 rates for the period 2018 to 2022, inclusive, on both an arithmetic and compounded basis?
- (b) What is the actual annual rate increase for each year from 2019, 2020, 2021, 2022, on both an arithmetic and compounded basis?
- (c) Why did Hydro One not include an option that would maintain reliability, but not increase it?
- (d) Why do the percentage contributions to SAIDI total only 57%? Please provide more details on rate of "other line components" in Table 4.
- (e) Please explain what the "regulatory obligations" referred to are. Please specify.
- (f) Please confirm that B (modified) would maintain, but not increase reliability.
- (g) Please provide the reduction in capital spending earned by each of the four measures listed below Table 5.



- (h) Please provide a calculation which underpin the statement that the forecast reduced load in 2018 relative to 2017 contributes 3.0% of the average increase in distribution rates of 4.9% in 2018 relative to 2017. Please take into account both the forecast decrease in 0.6% in load and the forecast 0.7% increase in customer count, per p24, in 2018 relative to 2017.
- (i) p18 – Please explain what is meant by "better aligning clearing frequency with reliability performance". Please confirm that there is no increase in branch clearing management program costs relative to those approved in EB-2013-0416/EB-2014-0247.

20. **Ref:** *Ibid, p16, Table 4*

How is FM defined?

21. **Ref:** *Ibid, p21*

Please discuss how the audited 2016 financial results have led to and update five year period or more forecast. In other words, what specific aspects of the 2016 statement have resulted in an increase in the productivity savings targets? Given that these numbers are targets for future performance, why does the increase result in a lower stretch factor today?

22. **Ref:** *Ibid, p23*

Please provide the 2017 forecast actuals to June 30, 2017 and most recent forecast to year end for Table 7. Please provide the approved 2017 forecast rates, and forecast 2018 rate

base. What components, accounting for what percentage of the 23% are you speaking of?

23. **Ref:** *Ibid, p24, Table 8*

Please explain more fully the footnote to this table.

24. **Ref:** *Ibid, p26, Table 9*

(a) Why is the general plant forecast consistently substantially underestimated over the years 2015, 2016, and 2017? Please explain fully.

(b) What have system renewal expenditures been to September 30, 2017, or the most recent date you have? What is the most current forecast for 2017 year end capex (the 252.2 on year end 2016 estimate)?

25. **Ref:** *Ibid, p27*

(a) What does life cycle optimization in investments mean?

(b) Please explain the amount of spending to replace smart meters that are at the end of life in 2021. When were the meters to be replaced in 2021 and 2022 installed? What is the effective life that expected life, compared to other distributors' experience? What were the total meter replacement costs (2017, over what period of time?) What percentage of outstanding smart meters will be replaced?

26. **Ref:** *Ibid, p28, Table 11*

Overforecasting in previous four years.

- (a) Why have sustained, development, and operation OM&A been overforecast in each of 2015, 2016, and 2017?
- (b) Why have HONI Distribution's share of common corporate costs actual substantially exceed approved in 2015 and 2016?

27. **Ref:** *Ibid, p29, line 5 to Table on p22*

- (a) Please break down the components of the \$20.2 million forecast reduction in 2017 relative to Board-approved.
- (b) What is the most current estimate of that reduction? Please provide an itemized list.

28. **Ref:** *Ibid, p30, Table 13*

Very large, and increasing over the 2017 vs 2012 appeal.

- (a) Please explain the components of the forecast \$158.3 million in forecast versus Board-approved 2017 rate base.
- (b) Please explain total spending on trouble calls, OM&A and capital, and how that becomes part of rate base. Please provide storm damage repairs (capitalized) relative to the last several years. What level of storm damage repair is included in each of 2018 through 2022?

29. **Ref:** *Ibid, p31*

- (a) Why did cash working capital increase by 54.5 (15%) forecast versus approved in 2017?
- (b) Please provide details or the very large increase in rate base from 2018 to 2022 of \$320 million in 2018 (\$482 million above Board-approved 2017 rate base) of \$378 million in 2019, \$430 million in 2020, \$559 million in 2021, and \$500 million in 2022.

30. **Ref:** *Ibid, p36*

Big increase in bill (10%) for DG customer. Please provide an additional column showing the Rate Impact for each customer class.

31. **Ref:** *Exhibit A, Tab 3, Schedule 1, Attachment 1; Distribution Business Plan*

*"Three Competing But Equally Important Factors... responsible stewardship of the distribution system..."*

- (a) What legislature mandate does the Company have OSC regulated, OBCA?
- (b) p5 – Please confirm that Hydro One's goal is to achieve the ROE allowed by the OEB, but not to exceed it. Please discuss.
- (c) p8 – Given the results of the customer engagement summarized here, please provide an analysis of why Plan C was not chosen.
- (d) Please provide reference in the IPSOS Report Appendices to support the assertion made in the third bullet on p8.

- (e) p9 – Please identify the cost savings that will result from each productivity initiative.
- (f) To what extent will the power quality program (an audit of 200,000 OM&A per year) meet the current large distribution customer demand for the service?

32. **Ref: *Ibid, p12***

- (a) Please provide the strategic direction from HONI's Board of Directors and executive leadership team to the company, including any written reports, guidelines, budget framework, and the like.
- (b) p13 – Where is the investment planning process to non-investment alternatives, eg. enhanced maintenance targeted DSM, demand response, are considered?
- (c) p15 – Please reconfigure the table to the OEB.
- (d) p16 – Please explain the details of how the existing back-up centre do not meet HONI's standards.

33. **Ref: *Ibid, p19***

- (a) Are the productivity improvements already included in the applicant's capital and OM&A budget, or are they incremental to those numbers? Please explain fully.
- (b) Will each initiative be measured against budgeted savings, and how will this be reported to the Board and intervenors each year?
- (c) p20 – What were the 2017 savings achieved by third party reductions?

- (d) p19 – Please provide an explanation of the lines under capital in the table, and what the initial two lines mean. How are these numbers, operational and procurement, 11.3 and 14.2 million, respectively, in 2018, differ from the capital and OM&A numbers for 2018?
- (e) Please show the most recent forecast against the 2017 budget in the table, for all lines for 2017.
- (f) p20 – Please provide a more detailed description of the pension savings including a copy of the actuary's report as at 2015, and any update as of December 31, 2016.
- (g) What is meant by "offset by additional renewal cost"?

34. **Ref: *Ibid, p22***

Is there a final version of the Productivity and Outcome Measure Scorecard relative to the current forecast? Please file it.

35. **Ref: *Ibid, p24***

Why does the Load Impact change so much from year to year? Please explain separately each annual variation, positive or negative. Please confirm that the negative market for 2019, 2020, 2021, 2022, are the measure of customer growth, shift in rate design and in those years. Please disaggregate the impact of factors causing the number for each year.

36. **Ref:** *Exhibit A, Tab 3, Schedule 1, Attachment 2, Consolidated Business Plan*

Please provide a copy of the company's business plan referred to in the first paragraph that was submitted to the HONI Board last April. Does the Company have replacement for its CFO? Please provide a status report.

37. **Ref:** *Ibid, p2*

Please explain in detail what is meant by "responsible stewardship of its transmission system". What is the class you are seeking to be the best of, Canadian utilities, North American utilities, or other?

38. **Ref:** *Hydro One Consolidated Business Plan, December 2, p3*

Hydro One pledges to continue to improve reliability in the distribution system. Does it propose any targets for such improvement over the term of the plan and/or earlier?

39. **Ref:** *Ibid, p4*

- (a) Is the \$11 million included in the table, or is it additional to the costs, eg. 2018 \$312 million in the table?
- (b) Is there a more detailed treatment of corporate common costs? See, in particular, last paragraph. Please provide a detailed breakdown of each of the lines in the table on p4, with particular attention to the larger items, such as Planning, Customer and Corporate Relations, Network Operating. Please provide the appropriate ratio for each of the lines, and the most recent B&V study. Please provide the cost of the custom service to the DSP.

- (c) Has the Internal Audit completed its review of same or all of the eight recommendations? Please file once this is completed.
- (d) Please update the table and chart to September 30, 2017.

40. **Ref:** *Exhibit A, Tab 3, Schedule 1, Attachment 3; Internal Audit Report of Auditor General – Final Report of Internal Auditor, March 31, 2017*

- (a) Auditor General ("AG") had seventeen specific issues for Hydro One. How many of the AG's actions did Hydro One accept as valid and requiring action?
- (b) What are the thirty-seven actions that it corrected, and show which AG recommendation each of the thirty-seven actions related to. What were the seventy-one corrected actions that HONI corrected (p2), and how do they relate to the thirty-seven actions mentioned at p1 and which AG's report engaged; which ones are now accepted, and which are outstanding? Please confirm their description with Appendix A for each of the AG's seventeen recommendations.

41. **Ref:** *Ibid, Appendix A, p3*

- (a) Please provide the cost benefit analysis of planned maintenance activities conducted by Planning, and indicate why, as noted by the AG, the results were not used in the 2018 Investment Plan.
- (b) Why were multi-year reliability targets not established?
- (c) What was the reliability target for 2017? Was it met?



42. **Ref:** *Ibid, p4*

- (a) Please describe the backlog of preventative maintenance, the plan to deal with it, the time that will take, the costs of doing so, and the cost of keeping ongoing maintenance schedule current. Are the costs in the five year budget and distribution investment plan?
- (b) Please provide a copy of the Work Governance Agreement, referred to.

43. **Ref:** *Ibid, p3*

What was Hydro One's reply to the AG's claim that assets in good condition were replaced before assets in poor or very poor condition? What are the statistics for each type of asset over each of the last three years? What, if any, is management commitment going forward? Please provide a description of each instance in 2015, 2016, and 2017 where an asset now in poor or very poor condition was replaced, and the reasons for that specific decision.

44. **Ref:** *Ibid, p4*

Did Hydro One agree with the AG's assertion that the OEB was misled in prior years about (annual) replacement activities?

45. **Ref:** *Ibid, AG 6*

Please explain the purpose, and terms of reference for the Data Governance Project. How will the report address the shortcomings in data analytics pointed out by AG, in

particular, with respect to HONI distribution? Please provide copies of the report, if completed. Have results been used in this filing?

46. **Ref: Ibid, AG 7**

Please provide copies of the company's past maintenance expenditures with reliability performance by planning optimization. When will the results be incorporated into the DSP? Please provide a status report on the state of development preventative maintenance plan (see transmission decision).

47. **Ref: Ibid, AG 9**

Has the Company set annual targets for reliability improvements? Please provide a copy of the feeder optimization model.

48. **Ref: Ibid, AG 10**

Is there a study on this matter?

49. **Ref: Ibid, AG 11, p8**

When will the quality of distribution data be addressed?

50. **Ref: Ibid, AG 14**

Please provide a summary of the Project Charter for the AMIA project. When will the results be available?

51. **Ref:** *Ibid, AG 15*

Are the new spaces policy available for use? What reductions, if any, have been made in reducing number of spare transformers and standardizing transformers? Please explain fully.

52. **Ref:** *Appendix B, p12*

- (a) Please update Requirements to Complete Table on p12.
- (b) Please explain why there are no management commitments for AG items 2, 3, 4, 6, 8, 9, 12, 14, 15, and 16 to indicate most recent status of each of the tasks?

53. **Ref:** *Appendix C*

What is meant by the words "Control Design" as used in the Table?

54. **Ref:** *Exhibit A, Tab 3, Schedule 1, Attachment 4, p3*

- (a) How many km of lines have been moved to road allowance? What percentage of which off road sections does that represent? What is the plan? Please provide detail on "enabling control room" visibility and controllability of many devices.
- (b) Please provide a copy of the assessment of past maintenance expenditures and activities.
- (c) p4 – Please provide a copy of the EPRI study.
- (d) Is there a disconnect here between Hydro One's response and AG's comments?

55. **Ref:** *Ibid, p5; 2015 Data Remediation Project*

Please provide a status report on the distribution data remediation project. Will it be completed by December 2017? If not, what activities will remain? Had the dispatch of data in different systems been resolved?

56. **Ref:** *Ibid*

What is the process for acquiring the required additional data for storing it, and for making it available to the staff who require it?

57. **Ref:** *Ibid, p7, #8; Savings for "smart meter project"*

Will the work be completed by the end of 2017, as set out in #8?

58. **Ref:** *Ibid, p8*

What are the savings that will be achieved from the reduction of standards from sixty to forty-five?

59. **Ref:** *Ibid, p8*

What is the total number of, and percentage of, distribution's customers that have added PQ capability to them? What percentage of total distribution's large customers does this represent? Who is responsible for the cost of adding this capability?

60. **Ref:** *Ibid, p9*

Please provide any results the work with peer Canadian utilities to benchmark capital projects.

61. **Ref:** *Ibid, p9*

How have contingencies and escalation allowances been refined?

62. **Ref:** *Exhibit A, Tab 3, Schedule 1, Attachment 5*

Please confirm that Hydro One Networks Inc., Hydro One Inc., and Hydro One Limited are OBCA or CBCA incorporated companies. Are they all OBCA?

63. **Ref:** *Ibid, p11*

Why is the rationale for including CDM in a Z-factor when its capital says it is not included in the forecast?

64. **Ref:** *Ibid, p15*

Custom IR proceedings are intended to be framed more like performance inquiries resulting in multi-year outcome commitments and measures that facilitate year-over-year performance assessment.

65. **Ref:** *Ibid, p3*

(a) What value are the forecast total costs for the years 2017-2022 in the benchmarking given that company uses actual costs and costs predicted the model to conduct its benchmarking? What is the most recent actual data for 2017? Please provide June 30<sup>th</sup> data or May 30<sup>th</sup> data for 2017.

(b) Have you included forecast data for the comparator companies; for some companies?

- (c) Why were no other Canadian utilities used in the data set? Many of them have large rural areas, etc.
- (d) Please provide copy of the March 2017 Report. Please provide reference to the benchmarking studies.

66. **Ref:** *Ibid, pp3-4*

- (a) What is a \_\_\_\_\_ total cost economic model? Please explain fully.
- (b) Prudent changes to the model co-efficient estimate were made due to the addition of:
  - (i) the 2016 data;
  - (ii) the 2017-2022 forecasts.

Given that the PSE proposes the lower stretch factor of 0.45 based on the addition of 2016 actuals (rather than 0.6 that PSE had recommended), does the company plan to provide actual vs. predicted performance relative to the benchmark for each year after each year of the five year period? Would that number be used to select the stretch factor for the next year?

- (c) Does the US data contain forecasts of costs over the following five years? Please discuss.

- (d) Why is the \_\_\_\_\_ percentage difference of Hydro One's actual costs and the predicted costs, rather than the direct percentage comparison of actual and predicted costs? Why is it the "convention within the industry"?
- (e) If forecasts are not included for the benchmarked companies, what assumptions are made to construct them? What are the problems with a future exercise?
- (f) What impact of using forecasts of costs, as well as actual costs?
- (g) Please provide a list of the utilities chosen as the benchmark. How many of them:
  - (i) have almost the same number of customers as Hydro One Distribution;
  - (ii) have the same urban-rural split as Hydro One Distribution;
  - (iii) is the benchmark made up of all the 350 utilities or just a subset of them; if the latter, describe the subset;
  - (iv) are they all electric utilities; what percentage are gas or combination utilities?

67. **Ref:** *Ibid, p10*

- (a) What are the limitations on introducing forecast costs into a comprehensive benchmarking study?
- (b) Where did the total cost data come from for each future year?

68. **Ref:** *Exhibit A, Tab 4, Schedule 1; Customer Service Strategy, p2, lines 24, 25*

- (a) Please describe each of the digital investments, when they were made, and how they have helped ensure valued service to customers, and which customers, their costs, capital and OM&A.
- (b) Please provide copies of the following surveys and reports:
  - (i) Examples of monthly Customer Satisfaction Transactional Survey;
  - (ii) The most recent Annual Customer Satisfaction Perception Survey for Commercial and Industrial customers;
  - (iii) Surveys or Reports of Call Centre Trends for Commercial and Industrial Customers, and steps to increase focus on Commercial and Industrial sector;
  - (iv) How many FTEs are in the "dedicated team" in the call centre for 2017, 2016, 2015, for 2018?
  - (v) Please provide the most recent Annual Report or its equivalent for the Hydro One Ombudsman.

69. **Ref:** *Ibid, p7*

What does the Company mean when it says "its Customer Strategy is in a period of transformation"? Please provide details.



70. **Ref:** *Exhibit A, Tab 4, Schedule 2, p3*

What was the attendance at the First Nations Engagement in early 2017? How many Chiefs and Heads of Regional Organizations? Where was the meeting held?

71. **Ref:** *Exhibit A, Tab 5, Schedule 1*

(a) No longer using the six.

(b) Please provide the 2016 data for the two scorecards shown at pp 7 and 8. Please explain the difference in the two documents, for example, why do the returns on equity vary so much?

72. **Ref:** *Ibid, p15*

Are the call centre agents employees of Hydro One? If not, who is their employer? Are they all full time employees? If not, what percentage?

73. **Ref:** *Ibid, p15 – detail of cost reduction*

(a) Percentage of telephone calls answered on time. Does Hydro One currently record and measure the purpose of each call, eg. bill, emergency, CDM request, etc.?

(b) In what year of the five-year rate plan does Hydro One expect to reach its target of answering calls within thirty seconds, eighty percent of the time?

- (c) Does Hydro One forecast a reduction in call volumes, by what percentage, by what year, due to the investments and process changes, and digitalization measures it proposes to make?
- (d) What call centre cost reduction does it forecast in each year of the IRP, both capital and OM&A?
- (e) Are there any precedents to Hydro One proposed investments described at pp 15-16? Please discuss.
- (f) What increase in FCR has Hydro One targeted for each year in the plan in order to reach eighty-eight percent by 2022? What is the cost of the investment in customer tools and analytics? When will the High Usage Alerts feature be established and operating? How does it work?
- (g) Please provide a table for each of the custom performance indices showing HONI 2015 and 2016 performance industry average for 2016, and HONI's target for 2022 (or earlier, if applicable).

74. **Ref:** *Ibid, p23*

- (a) Why would customer satisfaction be lower in 2015 than in 2014 due to events in the 2016 data?
- (b) Please explain: paperless billing notification, my account, self-serve portal.
- (c) What is the impact on customer satisfaction of each of these?

- (d) How many customers, in each rate class, are on e-billing? What are the targets over the plan period for increasing that percentage?
- (e) What ability do HONT's customers with smart meters have to issue outage claims, and accept "restart notices"? Does Hydro Inc. plan to put these features in place? Has Hydro One Distribution looked at practices at other distributor sales (Alectra) or Veridian? How do they differ?

75. **Ref:** *Ibid, p31*

Hydro One's number of general and public incidents rate per 10,000 customers and 1,000 km line has increased in 2016 to 0.091 representing eleven incidents up from four in 2015, and above target of 0.035. How does Hydro One propose to meet its target over the term of the rate application period? In the last case, the Board stated that the DSP on schedule metric was not very helpful metric.

76. **Ref:** *Ibid, pp33-35*

What about other rural utilities? How does Hydro One SAID compare with other SAIDI number MEDs in calculating its average SAIDI? If it excluded MEDs, what would the record and forecasts be? Please confirm that West Coast Energy Inc. would be considered a rural system density and rural utilities.

77. **Ref:** *2016 Sector-Wide Consolidated Scorecards of Electricity Distributors*

Please explain why Hydro One is one of only four Ontario distributors that is rated as NI Needs Improvement with ESA regulation 22/04. When will Hydro One obtain a higher rating? Please discuss.

78. **Ref:** *Ibid, pp35-36*

For SAIFI, same question as for SAIDI – MED excluded or included? Why is the target the end of the plan in 2022? Please confirm that the SAIDI initial target of 14.30 is as of 2022, or is it an average over the five years of the plan period. Are there annual targets over the period? If not, why not?

79. **Ref:** *Ibid, p39; Cost Control*

Of the level 5 designation in this section, PSE level 4 for stretch target purposes.

80. **Ref:** *Ibid, p41*

Please confirm that "target" in line 4 means "internal target".

81. **Ref:** *Ibid, p50*

- (a) For each of the last six years, ending in 2016, please provide Hydro One Distribution's allowed ROE and its achieved ROE.
- (b) Does the Board provide a single allowed ROE for HONI, or does it permit the HONI Transmission and HONI Distribution to have different ROEs?

- (c) Does Hydro One Distribution aspire or target to achieve rates of returns above Board allowed rates, or to meet Board allowed rates, with perhaps a few basis points over to ensure they meet the allowed rate?
- (d) In 2015, was the Board's allowed rate of return on equity 9.30%? Was the actual average return on equity for the industry also 9.30%?
- (e) The filed distribution evidence (Exhibit A, Tab 5, Schedule 1, p7) shows Hydro One Distribution underleveraged with debt/equity ratio of 1.19. What was the rate in 2016, and the anticipated D/E ratio over the term of the plan? Why does HONI Distribution operate with an actual debt/equity ratio different from its deemed capital structure, with a much higher percentage of equity? How do these numbers compare with HONI Transmission?

82. **Ref:** *Exhibit A, Tab 5, Schedule 1, p8*

- (a) Please explain why there is no target improvement in utility's total cost per customer and total cost per km of line. What is meant by the footnote re: PEG on p7?
- (b) Schedule 2: Please explain why HONI proposes a stretch factor of 0.45 when, applying the PEG Analysis, the stretch factor should be 0.60.

83. **Ref:** *Exhibit A, Tab 5, Schedule 3; Customer Service Quality Performance, p6*

Has the letter correcting the scorecard date referred to in Note 1 been filed? If so, please provide a copy.

84. **Ref:** *Ibid, p8*

Where is Force Majeure event defined in relation to service quality performance indicators? Please provide HONI's definition.

85. **Ref:** *Exhibit A, Tab 7, Schedule 1, p3*

What was the scheduled closing date for Norfolk acquisition? Why was the closing delayed for that period? Why did the 2014 costs increase by \$1.5 million, a loss relative to forecast of OM&A savings of \$5.8 million in the MAADs application? Does Norfolk remain a separate corporation after the closing, or was it merged into Hydro One?

86. **Ref:** *Ibid, p5*

(a) What was the incremental capital costs for the Haldimand County acquisition calculated in the same manner as those for Norfolk? Please confirm that these costs will not be recovered from HONI's ratepayers as in the Norfolk case. If not, please explain why not.

(b) Please provide a detailed breakdown of these costs.

87. **Ref:** *Ibid, p9*

(a) What were the incremental costs incurred in the Woodstock acquisition? Will these costs be recovered from ratepayers, given the fact that OM&A savings were negative in 2015 and \$0.8 million (vs. \$2.3 million projected in 2016)? If not, provide the balance, in excess of savings that are to be recovered.

- (b) Please provide a detailed breakdown of these costs, calculated in the same manner as for the Norfolk and Haldimand acquisitions.

88. **Ref:** *Ibid, p1*

- (a) When does HONI expect OM&A savings will gain forecasted savings? Please explain what Table 4 is intended to show.
- (b) Are the proposed new rate classes for Norfolk and Haldimand HONI's rate classes, or separate rate class for both NPDI and HONI? Please explain what is meant by the last sentence on p9. Please provide the numbers to support the assertion, and the impact of the proposed remedy, that is proposed 2021 common rates reflecting the combined costs to serve both utilities.

89. **Ref:** *Ibid, p10*

What is meant by line 18, where the evidence states that "Both of the actual and forecast amounts provided disputed incremental costs only". Please explain fully, and describe the purpose of Table 4.

90. **Ref:** *Exhibit B, Tab 1, Schedule 1*

To what extent do investments and OM&A support performance customer feedback on needs and preferences?

91. **Ref:** *Ibid, p14*

Please provide a tabular breakdown, comparable to Tables 2 and 3 on p13 of the system record planned expenditures.

92. **Ref:** *Ibid, p15*

Details of water expenditures in 2022.

How are distribution, transmission capital projects:

- assessed
- do the same planners deal with transmission and distribution projects?
- how much of capital plant is capital contribution to transmission?

93. **Ref:** *Exhibit B, Tab 1, Schedule 1, Attachment 1, p1439*

Which agreements were reached? Please list the agreements Please submit copies of any agreements reached.

94. **Ref:** *Ibid, p1448*

Please provide a copy of the "session report" from engagement session with Métis Nation of Ontario.

95. **Ref:** *Ibid, p1449, lines 9-14*

- (a) Given the reluctance to increased rates expressed by residential and small commercial customers, why is HONI Distribution not proposing an option which would leave rates flat, for part or all of the period? Same reaction from large customers.



- (b) To what extent has HONI responded to large customers' requests for additional capacity? Please provide reference to project that are in response to these requests.

96. **Ref:** *Ibid, p87*

Small business increase 144. What is the margin of error? Most \_\_\_\_\_  
200. Some had 144.

97. **Ref:** *Ibid, p88*

Were the customers asked how much of an increase they would accept to reduce ratio and length of outage or maintain the number of outages (see earlier question) about one percent?

98. **Ref:** *Ibid, p89*

What was the purpose of the question on renewable energy, given that it is a stated first priority?

99. **Ref:** *Ibid, p90*

The words "rate" and "bill" appear to be used interchangeably in this page. Please explain why, and what is meant by the title, question, and supplementary discussion, monthly bill, or rate?

100. **Ref:** *Ibid, 94*

What is your view as to why the small business responses to the telephone survey were more favourable than those expressed through the entire workshop? See, for example, pp82 and 92; and pp86 and 96.

101. **Ref:** *Ibid, p123*

- (a) What importance do you attach to the results which are \_\_\_\_\_ only because of small sample size?
- (b) Why were not the sample sizes of LOA and Commercial and Industrial increased?

102. **Ref:** *Ibid, p123*

- (a) Which specific uses of technology are you referring to in the "Reliability Improvements" question to reduce your chances of losing power?
- (b) Grid Strengthening category. What specific customer technologies or priorities or resources are you referring to, to "enable the grid to better withstand summer weather"?
- (c) Rapid Response on Progress and Monitoring and Control. What technology, retrofits, practices are you referring to here? Perhaps use examples to explain how they work and what their impact would be on SAIFI and SAIDI (qualitatively at least).

103. **Ref:** *Ibid, p123*

What do customers mean when they complain about the format and presentation of bills?

104. **Ref:** *Ibid, p123*

How has HONI incorporated the need for more rapid power outage restoration into its five-year DSP?

105. **Ref:** *Ibid, p127*

Please confirm that LDCs that are embedded in Hydro One and therefore in \_\_\_\_\_ Hydro One Distribution charges in their rates are entitled to pass those charges through to their customers.

106. **Ref:** *Ibid, p125*

Commercial and Industrial holdback issue. What is your interpretation of that? \_\_\_\_\_ largest share after reducing rates.

107. **Ref:** *Ibid, p127*

What is the OM&A expenditure that matches Scenario 1? What was its net total to customers?

108. **Ref:** *Ibid, p129*

What did you mean by differentiated services, customer series, better service, or more service?

109. **Ref:** *Ibid, p130*

Majority of respondents (129) didn't accept a rate increase of any size, whether reliability remains the same or improves.

110. **Ref:** *Ibid, p132*

Why did you not focus on OM&A and possible reductions to OM&A as presentations?

111. **Ref:** *Ibid, p127*

Why did OM&A go up along with capex in the improving performance scenario?  
Potential efficiencies were not mentioned – different levels of reduction.

112. **Ref:** *Ibid, p133*

What the relationship between capital expenditures did maintenance expenditures set out?

113. **Ref:** *Ibid, p133*

Why did the Company not provide more detail on both capital and maintenance and OM&A? Why is this not a large planning cycle 10-15 years?

114. **Ref:** *Ibid, p135*

Why are interruptions of less than one minute are not leaving recorded tracked by Hydro One, at least for large customers? Record \_\_\_\_\_, surges, and spikes? Back-up power – Does Hydro One have a power quality plan?

115. **Ref:** *Ibid, p137*

What is the \_\_\_\_\_ breakdown of capex? Why is the information not provided to customers?

116. **Ref:** *Ibid; Customer Service*

Does Hydro One plan to have account managers for Commercial and Industrial customers? Which customers currently have dedicated (shared) account managers? How many account managers does Hydro One Distribution have?

117. **Ref:** *Ibid, p139*

What is Hydro One doing about bills to regional offices, rather than head offices? What does Hydro One do to ensure the municipal industrial cost sharing for connection and system expansion?

118. **Ref:** *Ibid, p140*

What is your reaction to the claim that you are not concentrating on new capacity to serve growing customers fast enough? Please discuss.

119. **Ref:** *Ibid, p143*

\_\_\_\_\_ rates for ratepayers while paying a large dividend is considered unethical by large customers.

120. **Ref:** *Ibid, p144*

What is HONI doing to provide more information on outages on a regular basis?

121. **Ref:** *Ibid, p145*

What changes does Hydro One propose to make in the next customer engagement program to reflect concerns, eg. more detail on historical costs, specific type of costs, cost effectiveness?

122. **Ref:** *Exhibit B, Tab 1, Schedule 1; DSP 2.6, p7*

- (a) Please provide a copy of any written strategic directive provided by HONI's senior executives, to inform the planning agenda for the 2017-2022 period.
- (b) What is meant by "The forecasts presented are weather-normal at the wholesale level"? (our emphasis)

123. **Ref:** *Ibid, p8*

- (a) Will the forecast number be amended to reflect the acquisition of Peterborough Hydro?
- (b) What is the forecast increase or decrease (kw) over the DSP year? Please provide details.

124. **Ref:** *Ibid, p9; Table 31*

- (a) Please calculate the average of the actual increase from 2012 to 2017 and the average forecast annual price increase from 2018 to 2022.
- (b) Please provide the rationale for the near doubling of the forecast rates from the actual rates for the last five years.

- (c) Please provide copies of some documents for the above data. Why does it exceed the CPI to such a large extent, prices forecast from the \_\_\_\_\_ global usage?
- (d) What does the impact of a one percent increase in the CDN\$/US\$ (increase in strength of the CDN \$) have on HONI's capital and OM&A budget?

125. **Ref:** *Ibid, p18*

- (a) Please demonstrate where in the investment plan the recommendation of the pole replacement and station and station refurbishment benchmarking studies are to be found.
- (b) Please provide copies of customer satisfaction surveys (Q&As) that have been done over the last three years.

126. **Ref:** *Ibid, p29*

- (a) Please explain why there are two consecutive \_\_\_\_\_ for investment plan approvals, and once the investment plan has gone through selection, optimization, internal corporate review, senior management review, and Board of Directors review, each indicated project must undergo the review set out on p29 of 34.
- (b) Please explain why this is not, at least in part, duplication of effect.
- (c) Why, for example, should there be a further cost benefit analysis, reinforced need for investment, and consideration of alternatives, and further cost review? Have

not these items been considered in assembling the investment plan consideration and the optimization of the group of investments to be pursued? Please explain fully.

- (d) Was 2016 an outlier year? If so, what is the average over the last five to ten years on the work?

127. *Ibid, DSP Section 2.2*

- (a) A small part of the distribution system is monitored. What percentage of lines (distance) are monitored, breakers, and switches, for the distribution network?
- (b) Are all distribution stations monitored remotely? If not, what percentage are?
- (c) What will those percentages be at the end of the five year plan, at the midpoint of the plan?

128. *Ibid, p4*

What is the significance of HONI's major events to be force majeure events, operationally, and legally?

129. *Ibid, DSP, Section 2.3; Lifecycle Strategies (89 pages)*

- (a) How many PCB contaminated transformers does Hydro One Distribution have?  
What is the proposal made to be replaced each year of the plan, and until 2025, at what annual cost over that period?
- (b) What is the risk of malfunction?



- (c) Please provide a copy of, or link to, the government regulation/agreement(s) that requires replacement and establishes the schedule.
- (d) What percentages of line length replaced on a run to failure basis is on condition assessment in each of the last five years?
- (e) How many \_\_\_\_\_ transformers does Hydro One own and operate? Please describe these additional functions in detail.
- (f) Please describe how well the SAP maintenance tracking program has worked since installation. What is the annual cost?
- (g) How are the rural/urban categories defined for maintenance purposes?

130. *Ibid, p8*

What is the function of the under-load tap-changer?

131. *Ibid, p9*

Please provide a copy of the repair versus replace economic model.

132. *Ibid, p11*

What percentage of the twenty-three percent of distribution station transformers that are beyond fifty years old, \_\_\_\_\_ anymore also in the group of 280 distribution transformers deemed to be of high risk?

133. *Ibid, p15*

- (a) What are the criteria, threshold for the various dissolved gas, moisture, \_\_\_\_\_ tests, are used to determine whether a transformer is high risk?
- (b) What does the high risk category mean, in quantitative terms?
- (c) How many of the transformers that appear on both lists over fifty, and high risk, are among the number of transformers which HONI plans to (a) replace; (b) repair or refurbish, over the next five years?
- (d) How many transformers in total does HONI intend to replace over the next five years?

134. *Ibid, p12*

*"Total failures have gone down on the system since 2013".*

What has cost the increase of failures from seven to twelve from 2014 to 2016? Why did transformers fail?

135. *Ibid, p14*

Please demonstrate, graphically, the influence of criticality in selecting transformer replacements for each of the five years. Please provide details of criticality for each transformer replaced.

136. *Ibid, p15*

- (a) What is the strategy for upgrading breakers? Are electronic reclosers the same as vacuum reclosers? If not, please describe the differences.
- (b) What are the costs of a typical recloser, or breaker? What is the range?

137. *Ibid, p18*

- (a) How many breakers and reclosers (separate numbers) do you plan to replace over the five year period? How many breakers now have more than fifty years of service?
- (b) How does the SAP system plan integrate actual physical maintenance?

138. *Ibid, p12*

- (a) What percentage of failed station switches are repairable? Please provide data over the last five years. What are average repair costs relative to replacement costs? How long will switch last?

Please confirm that \_\_\_\_\_ MUS plan to buy nine new MUS – Same question for each of the asset categories.

- (b) Why is the fleet being increased from thirty to thirty-three over the plan? What is the need?

139. *Ibid, p26*

- (a) Why do the MUS transformers have a shorter useful life (forty years) than other transformers? How many are more than fifty years old?
- (b) What is the replacement schedule for the five MUS over the plan period?
- (c) How many of the five replacements from TFS are in the high risk category? If any are not in that category, please explain.

140. *Ibid, Section 2.3.2*

- (a) Please define service lines and provide examples.
- (b) Does this approach apply to all service lines to institutional, industrial customers, or just residential customers?
- (c) Why are the service lines to larger customers not maintained?
- (d) What percentage of outages are due to service line failures?

Additional Questions on Ex-Summary

141. *Ref: Exhibit A, Tab 3, Schedule 2, p1*

Hydro One's proposal seems to be a hybrid proposal. It describes its proposal as a Custom IR submission (A1, T2, Sch 1, pp1 and 2) but is in fact a revenue requirement approach using I-X. Have the Custom Capital component eventually made it a cost of service mechanism?

142. **Ref:** *Ibid*

Given that other than for 2018, Hydro One's IRM proposal is a "revenue cap IR", please explain the reference to "each test year" in line 24.

143. **Ref:** *Ibid*

Please confirm that Hydro One's Custom Capital Factor, which is defined at p2, "to be a mechanism to recover the incremental revenue in each test year necessary to support Hydro One's proposed Distribution Plan beyond the amount of revenue recovered in rates", recover revenues incremental to that deemed from rates required to fund the depreciation or return on, and taxes in respect of, capital investments that are recommended in the System Plan, and placed in-service in each year (in 2019, 2020, 2021, 2022, in which the revenue plan is in effect).

144. **Ref:** *Ibid, p6*

The rates referred to in the third bullet on p2 are the rates that are derived from the application of the revenue cap I-X formula to the test year (2018) and each subsequent year. Please explain line 7 of Table 1, the productivity factor is not the 0.45% stretch factor meant to be applied to the revenue.

145. **Ref:** *Ibid*

(a) What is the percentage and increase in the rate base in each year, over the previous year, beginning in 2018 (over 2017) and until 2022, and in each of the

capital expenditures, depreciation, return on equity, and income taxes over the same period?

- (b) What would the comparable numbers be if capex was, each year from 2018 to 2022, held to the rate of inflation?
- (c) Please confirm that, unlike the incremental capital module, that can be used in conjunction with the price cap IRM is an ICM without a materiality factor.
- (d) Please provide a version of Table 1 which incorporates a materiality factor in the determination of the "capital factor" according to the Board's formula, set out in EB-2014-0219.

146. **Ref:** *Exhibit A, Tab 3, Schedule 2, p2*

- (a) Please explain fully why the proposed revenue cap provides more flexibility than a price cap IR to introduce new rate classes in 2021 to integrate recent acquisitions.
- (b) Please explain fully why the proposed "revenue cap" would permit the continued transition to a fully-fixed rate for residential customers while a price cap IR would not.
- (c) lines 27-29 – Please explain, given that the OEB has already decided to eliminate seasonal rates, the point is included.

- (d) line 30 – Why does the proposed revenue cap provide more flexibility than price capex to meet customer commercial and industrial customer rates if the OEB decides that changes in rate design should be made?
- (e) p3 - Why would the proposed revenue cap, but not a price cap regime, allow HONI to update its billing determination to reflect estimated charges in its load forecast when it integrated the acquired utilities?
- (f) p9 – Please explain the derivation of the 2021 revenue requirement outlined at lines 6-8.
- (g) p10 – Given the design of the CCSA, why would any unit credited to the deferral account not be dead at the end of each year to ratepayers?
- (h) Capital Factor (General) – Question with the capital factor, is there any cap on the actual level of capital expenditures in a given year, other than the capacity of the utility to finance the additions?
- (i) p10 – Why is the threshold level for making entries in the proposed CISVA be 98% of the OEB-approved account, rather than the OEB-approved account?
- (j) How will verifiable productivity gain be determined? What constitutes verification and who will ultimately determine whether a reduction in capital expenditure is due to a productivity gain? Please discuss.
- (k) p11– What is meant by the reference to "regional planning" as an "event" that would qualify for Z-factor treatment?

(l) Please explain why "regional planning" would meet Z-factor criteria.

147. **Ref:** *AG's Report, Appendix A*

p6 – Please provide a status report on the implementation of Table 28 with respect to the bundling of preventative maintenance programs.

148. **Ref:** *Ibid; Exhibit A, Tab 3, Schedule 1, Attachment 4, p2*

Please provide a copy of the feeder prioritization model (AG #9). Please provide the multiyear targets for reliability, as well as the 2022 target. They were to be completed by May 2017.

149. **Ref:** *Ibid, p8*

What steps have been taken to address the data quality (distribution) issues raised by AG #11, Task 42. Please provide a copy of the Design of the Data Governance Project.

150. **Ref:** *Ibid, p9*

Please provide the charter for the AMCA project, and a status report on progress of implementation (AG #14).

151. **Ref:** *Ibid, p10*

Please provide the output of management's view of spares policy (AG #15) and progress has been made on standardizing transformers and reducing number of spares. Please provide the new spares policy.



152. **Ref:** *Ibid, p11; Exhibit A, Tab 3, Schedule 1, Attachment 4, Bullet 7*

Has a similar analysis been performed for distribution reliability performance versus maintenance program spend? If so, please provide. If not, why not?

153. **Ref:** *Financial Statements*

- (a) Please provide copies of HONI's first quarter and second quarter financial statements, and when available (likely around November 7, 2017), its third quarter financial statements, including the MDAs and press releases.
- (b) The June 30, 2017 statement shows that assets placed in service by June 30, 2017 were \$310 million. What is the most recent estimate (with date) of 2017 year end assets in service? The same document shows first half capex at \$289 million. What is the most recent estimate (to date) of 2017 year end capex?
- (c) In the second quarter (p1), p1 states that security deposits were returned to customers with positive payment history. How many customers in each rate class received return of security deposits? What was the total dollar amount of deposits returned? Were the security deposits held in trust or otherwise separated from cash on hand?

154. **Ref:** *Ibid, p7*

Please explain the following statement at p7:

*"lower bad debt in 2016 due to revised estimates of uncollectable accounts resulting from the stabilization of the customer information system".*

155. **Ref:** *Ibid, p8*

OM&A costs as of June 30, 2017 were \$298 million, up 4.5% from \$285 million in 2016. Please provide consulting costs incurred, related to the acquisition of Arista Corporation, and confirm that these costs are not recovered from ratepayers. If they were chargeable to ratepayers, please explain.

156. **Ref:** *Ibid*

- (a) Please provide copies of any rating agency reports by Moody's S&P, on DBRS, filed since those included in the prefiled evidence.
- (b) Please provide details on the spare transformers purchases in the first three quarters of 2017, including the purpose for the purchase, the relationship to the existing spares pool, the total amount spent.

157. **Ref:** *Ibid, p13*

- (a) Please provide the material from S&P dated July 19, 2017, in which it revised its outlook with Hydro One Limited from negative to stable.
- (b) Please provide the material from S&P and Moody's, in which they revised their outlook with Hydro One Inc. from negative to stable, affirming the existing debt rating.

158. **Ref:** *Ibid, p14 - Summary of Contractual Obligations and Other Commercial Commitments*

- (a) For each of line items, please indicate where in the corporate chain Hydro One Limited, Hydro One Inc., Hydro One Networks, the liability or obligation is held.

- (b) Please confirm that long-term debt, short-term rates payable, credit facility, and guarantees, are all obligations of Hydro One Inc.
- (c) Does Hydro One Networks ("Networks") (the regulated entity) guarantee or support in any other manner, the debt incurred by Hydro One Inc., aside from required payments of dividends to Hydro One Inc.?

159. **Ref:** *Ibid, p17*

- (a) Does Networks have any legal obligation to provide a minimum dividend?
- (b) Please itemize the major covenants.
- (c) Please provide a copy of any current prospectuses, shelf prospectus or other comparable documents under which Hydro One Limited or Hydro One Inc. raise debt or equity, including the Short Form Prospectus dated August 1, 2017 for the 4% \$1.4 billion convertible debenture in connection with the Arista acquisition.
- (d) Please provide a copy of the agreement pursuant to which the Province of Ontario waived its pre-emptive right to participate in the debenture offer.
- (e) Please provide a copy of the convertible debenture.

160. **Ref:** *Ibid, p19*

- (a) Please confirm that any expenditures or commitments made, or liabilities incurred, by Hydro One Limited or Hydro One Inc., in connection with the Arista acquisition, including, for example, a potential termination fee of \$103 million, will not in any manner be the responsibility of Networks' ratepayers.

- (b) On the assumption that Hydro One Inc. (or Hydro One Limited) continues to hold all corporate debt, please discuss how the financing obligation for the Arista corporation will be kept separate from the financing from Networks, so that the ratepayers can, in no circumstances, become liable for the payment of debt incurred by the unregulated entities for the purchase of Arista.
- (c) Please confirm that none of the "transaction costs" or "implementation costs" of the Arista acquisition will be the responsibility of Networks' ratepayers.

161. **Ref:** *Ibid, p20*

- (a) Please provide a detailed explanation of how HONI proposes to finance the acquisition. Will any debt incurred be incurred on a "project basis", that is, be repaid entirely from revenue stream from acquired company, or the shareholders of the unregulated business? How will Networks be insulated against any risks arising from the proposed acquisition? Please discuss fully.
- (b) One of the risks of the acquisition cited in the second quarter report (p20) is that the additional debt required would result in a measurement of Hydro One Limited and Hydro One Inc. credit ratings and would increase the company's borrowing costs. Will Networks' debt cost be insulated against such a development, and how will this be done?
- (c) Another risk is that:

*"Hydro One will substantially increase its amount of indebtedness following the merger (including \$1.9 billion of existing debt of Arista*

*corporation) may adversely affect Hydro One's cash flow and ability to operate its business".*

What steps will be taken to address this risk?