



March 5, 2018

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

Re: EB-2017-0049 Hydro One Networks Inc. 2018-2022 Distribution Custom IR Application
AMPCO's Panel 2 Technical Conference Questions

Dear Ms. Walli:

Attached please find AMPCO's Technical Conference questions for Panel 2. AMPCO has arranged for Mr. Mark Rubenstein, School Energy Coalition, to ask most of AMPCO's questions related to the investment planning process, reliability and the investment plan scenarios.

Please do not hesitate to contact me if you have any questions or require further information.

Sincerely yours,

(ORIGINAL SIGNED BY)

Colin Anderson
President
Association of Major Power Consumers in Ontario

Encl.

Copy to: HONI

Hydro One Networks Inc. (HONI)
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TC Question #1

Ref: I-23-AMPCO-7 (c)

Preamble: HONI's response references the new Large Customer Interruption Frequency metric which is included on HONI's Distribution Scorecard at Q-1-1 Attachment #1.

Please provide 2017 actuals for this metric and the targets for each of the years 2018 to 2022.

TC Question #2

Ref 1: I-24-AMPCO-6 (j)

Preamble: AMPCO asked that HONI complete a table to show spending in three areas: Proactive, Maintenance and Demand-Driven programs. HONI's response indicates that HONI does not characterize investments as "proactive" so it is not possible to provide actual or planned funding levels for proactive investments. HONI makes assumptions about what "Maintenance Programs" and "Demand-Driven" Programs might be referring to.

AMPCO wishes to clarify that HONI's evidence at B1-1-1 DSP Section 1.1 Page 12 states the following:

15 Hydro One has a number of proactive investment programs that aim to pre-emptively
16 address critical assets where a failure would impact a large number of customers. Hydro
17 One has maintenance programs to address less pervasive assets and to quickly respond to
18 events such as asset failures on a reactive basis. Finally, Hydro One has comprehensive
19 demand-driven programs that react to unforeseen incidents that affect the entire system,
20 such as storms or other external factors.

From the above it appears that HONI characterizes its investments in three key program areas: Proactive, Maintenance and Demand-Driven. AMPCO asks that HONI please complete the table to show the actual spending in these three areas from 2012 to 2017 and the forecast for the years 2019 to 2022.

TC Question #3

Ref 1: I-24-AMPCO-11 (a)

Please update the table of "Power Outage Causes" excluding Force Majeure and Loss of Supply events.

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TC Question #4

Ref 1: I-24-AMPCO-13 (i)

Preamble: HONI does not use Adverse Weather and Lightning as Cause Codes.

(i) Please provide the rationale for not using Adverse Weather and Lightning as Cause Codes.

(ii) Does HONI have the data related to the contribution of Adverse Weather and Lightning to SAIDI and SAIFI? If yes, please provide.

(ii) If data is not available, does HONI have a sense if the contribution of adverse weather and lightning to SAIDI and SAIFI is material in its service territory.

TC Question #5

Ref 1: I-24-AMPCO-13 (j)

Preamble: Tables 13, 14 and 15 include the outage code "Loss of Supply".

Please confirm Loss of Supply event data is not included under other cause codes.

TC Question #6

Ref 1: I-24-AMPCO-20 (a)

Preamble: The response indicates that HONI does not track the age an asset fails for every asset category.

Please provide the asset groups where HONI has data on the age an asset fails.

TC Question #7

Ref 1: I-24-AMPCO-21 (a)

Preamble: HONI provides thresholds for cost, schedule and scope variances.

(i) Please provide HONI's variance policy document.

(ii) Please provide any internal documents that govern the preparation of Business Cases.

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(iii) Please provide any internal documents that govern internal project controls.

(iv) The Schedule Variance Threshold references a material impact of the benefit of the scope of work. How is a material impact on the benefit of the scope of work evaluated?

TC Question #8

Ref: I-24-AMPCO-21 (b)

Preamble: HONI indicates there were five Variance Proposals in recent years with EOY cost impacts.

Please provide the original Business Case, any subsequent Business Cases and the Variance Proposals for each of the five projects.

TC Question #9

Ref: I-25-Energy Probe-38

Preamble: The response lists the Variance Proposals for projects with budgets greater than \$1 million.

Please provide the original Business Case, any subsequent Business Cases and the Variance Proposals for each of the projects listed.

TC Question #10

Ref: I-24-AMPCO-22 (b)

Preamble: AMPCO requested the % of planned capital work undertaken for each of the years 2012 to 2017.

AMPCO's question should have been clearer. AMPCO seeks to understand how much of the total capital budget is spent on planned capital work compared to unplanned work for each of the years 2012 to 2017.

Capital Spend	2012	2013	2014	2015	2016	2017
% planned work						
% unplanned work						

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TC Question #11

Ref: I-24-AMPCO-23 (c)

Preamble: HONI indicates that most asset groups have data availability levels below 100%.

- (i) Please list the asset groups that have data availability levels equal to 100%.
- (ii) Please list the asset groups that have data availability levels of less than 50%.
- (iii) Please list the asset types that have data availability levels of greater than 50% but less than 75%.
- (iv) Please list the asset types that have data availability levels of greater than 75% but less than 100%.

TC Question #12

Ref: I-24-AMPCO-23 (f)

Preamble: HONI indicates that not all asset types or sub-types have condition algorithms.

Please explain further what this means and the resulting impact on the condition assessment of the asset.

TC Question #13

Ref: I-24-AMPCO-24 (c)

- (i) Please confirm the asset failure quantities in Attachment #1 includes failures that do not result in an outage.
- (ii) Please provide a version of the table with only asset failures that result in customer interruptions.
- (iii) HONI states “Note that in some cases, multiple assets can fail for a single outage.” Please provide an example and explain how this impacts the asset failure quantities in the table.

TC Question #14

Ref: I-24-AMPCO-25

Preamble: HONI provided details on planned asset replacements.

- (i) Please clarify if the planned asset quantities provided include planned replacements under the System

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Renewal investment category only, or if planned asset replacements under System Access and System Service categories are also included.

(ii) If the table reflects System Renewal planned investments only, please provide an updated excel table to show planned replacements under all three asset investment categories: System Renewal, System Access and System Service.

TC Question #15

Ref: I-24-AMPCO-26

Preamble: HONI indicates a forecast of unplanned replacements is not available for the years 2018 to 2022.

Please explain how HONI determines the capital budget needed to address unplanned asset replacements?

TC Question #16

Ref: I-24-AMPCO-33 (d)

Preamble: HONI indicates that OEB approved figures are not available for 2012-2014 as these were IRM years.

Regardless of it being an IRM year, AMPCO assumes HONI had a planned System Service internal budget for each of the years 2012 to 2014. Please provide the System Service work deferred, cancelled or advanced compared to the budget for 2012 to 2014.

TC Question #17

Ref: I-24-AMPCO-34 (a) (b) (d)

Preamble: AMPCO could not locate the MS excel files to be provided at (a), (b) and (d).

Please provide.

TC Question #18

Ref: I-29-AMPCO-27 (b)

Preamble: HONI indicates it could not provide the asset unit replacement levels by investment plan scenarios for total line component category as volumes are not available as they are dissimilar units replaced as part of both individual programs and as part of refurbishment projects.

(i) Please explain this statement further.

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(ii) Please provide the asset groups included under Other Line Equipment.

(ii) Please explain how HONI determined the spending for “Other Line Equipment” under each investment plan scenario.

TC Question #19

Ref: I-29-AMPCO-28

Please confirm the data in the three tables excludes Force Majeure and Loss of Supply events.

TC Question #20

Ref: I-29-AMPCO-30

Please provide the km of low priority Rights of Way, medium priority Rights of Way and high priority Rights of Way.

TC Question #21

Ref: I-18-SEC-31

For the following outcome measures, please confirm the historical actuals for 2014 to 2016 exclude Force Majeure and Loss of Supply events: Vegetation Caused Interruptions, Substation Caused Interruptions and Distribution Line Equipment Caused Interruptions.

TC Question #22

Ref: I-38-AMPCO-38

Preamble: HONI provided a table in response to (a).

(i) For the first row “Line Assets”, please indicate if the percentages shown reflect Inspected, Tested or Maintained.

(ii) Please provide the forecast percentages for the years 2018 to 2022.

TC Question #23

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Ref: I-38-AMPCO-40 (a) & (c)

Please provide the forecast quantities for the years 2019 to 2022 for the tables provided in response to (a) and (c).

TC Question #24

Ref: I-38-AMPCO-41 (b) & (c)

Please provide the forecast quantities for the years 2019 to 2022 for the tables provided in response to (b) and (c).

TC Question #25

Ref: I-38-AMPCO-45 (a)

Please provide the forecast number of FTEs working on vegetation management programs for the years 2019 to 2022.