

August 12, 2016

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

Re: Hydro One Networks Inc. (Hydro One) 2017 & 2018 Transmission Rate Application

AMPCO Interrogatories Board File No. EB-2016-0160

Dear Ms. Walli:

Attached please find AMPCO's interrogatories in the above proceeding.

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

Sincerely yours,

Mark Passi, Chair

Association of Major Power Consumers in Ontario

Hydro One Networks Inc. 2017-2018 Transmission Rate Application AMPCO Interrogatories

Exhibit A 1.0 Administration

1.0-AMPCO-1

Ref: Exhibit A Tab 5 Schedule 2

<u>Preamble:</u> The corporate governance framework consists of the Board of Directors and its committees, an independent internal auditor, a Chief Compliance Officer, policies and procedures and Bill 198 controls.

- a) Please summarize the types of internal reports prepared by Hydro One's internal auditors.
- b) Please provide a listing of all 2015 and 2016 reports prepared by Hydro One's internal auditors relevant to this application.
- c) Please summarize the key recommendations from Hydro One's internal auditors that have been incorporated in the current application.
- d) Please provide the internal audit plans for 2015 to 2018.

1.0-AMPCO-2

Ref: Office of the Auditor General Report, 2015 Annual Report, Chapter 3, Reports on Value-for-money Audits, Section 3.06 Hydro One – Management of Distribution and Transmission Assets

Preamble: The Auditor General's Report regarding Hydro One contains 17 recommendations.

a) Please explain how Hydro One has addressed the requirements of each of the 17 recommendations in the current application.....replacing non high risk assets/internal audits

1.0-AMPCO-3

Ref: Exhibit A, Tab 3, Schedule 1 Page 4 Table 1: Hydro One's Values and Business Objectives

<u>Preamble:</u> Under System Reliability, Hydro One's business objective is to maintain top quartile reliability relative to transmission peers.

a) Please provide the target range for T-SAIFI, T-SAIDI and T-SAIFI-M that reflects top quartile reliability for 2016, 2017 and 2018 relative to Hydro One's transmission peers.

1.0-AMPCO-4

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Ref: Exhibit A Tab 3 Schedule 1 Page 5

a) Please summarize the types of investments in the current application that are likely to impact transmission system reliability risk and actual system performance.

1.0-AMPCO-5

Ref: Exhibit A Tab 3 Schedule 1 Page 6

Preamble: Hydro One indicates it has modified its asset management approach to include reliability risk and its approach has been informed by the development of this approach in other jurisdictions.

a) Please provide a summary of the other jurisdictions that have developed this approach.

1.0-AMPCO-6

- a) Please provide a breakdown of Hydro One's projections regarding payroll and non-payroll costs related to the implementation of the government's Cap and Trade policy for the years 2016 to 2018.
- b) Have any Cap and Trade costs been included in the current application? If yes, please provide.

1.0-AMPCO-7

Ref: Exhibit A, tab 3, Schedule 1 Section 5 Pages 15 to 17

a) Please explain why is there a performance metric for connection assessment of renewable energy projects, but not for load customer projects?

Exhibit B 2.0 Transmission System Plan/Cost Efficiencies and Productivity

2.0-AMPCO-8

Ref: Exhibit B1, Tab 1, Schedule 2

a) Please complete the following Table:

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total # of Tx									
assets									
% of Tx									
assets									
operating beyond									
beyond									

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Expected					
Service Life					

2.0-AMPCO-9

Ref: Exhibit B1 Tab 1 Schedule 2

<u>Preamble:</u> The new definition of Bulk Electric System (BES) (March 24, 2014) significantly expands the scope of power system elements that are subject to NERC's reliability standards.

- a) Please provide the number of transmission elements captured by the new BES definition compared to prior.
- b) Please provide the incremental costs due to the changed BES definition taking into account the reduced compliance requirements for 111 BES elements.

2.0-AMPCO-10

Ref: Exhibit B1 Tab 1 Schedule 2

- a) Please identify and explain any new or revised engineering design and construction standards and/or specifications implemented since Hydro One's last Cost of Service application.
- b) Please discuss the cost impact of any new or changed engineering design and construction standards and/or specifications in the current application.

2.0-AMPCO-11

Ref: Exhibit B1, Tab 1, Schedule 3

- a) Page 20: Please provide the total number of delivery points for the years 2006 to 2016 and split between north and south.
- b) Page 21: Please provide the most recent CEA reliability reports.
- c) Pages 22 to 25: The Figures include the data values for Hydro One. Please provide the data values for the CEA Composite in Figures 8a, 8b, 9, 10, and 11 and add the CEA Composite data points for 2015.

2.0-AMPCO-12

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Ref: Exhibit B1, Tab 1, Schedule 3, Pages 26, Figure 12 and Figure 13

- a) Please provide the CEA Composite 5 year moving average data value for 2015.
- b) Please explain why the CEA Composite 5 year moving average is used over the CEA Composite.
- c) Please provide Figure 12 and Figure 13 using the CEA composite for the years 2006 to 2015.

2.0-AMPCO-13

Ref: Exhibit B1, Tab 1, Schedule 3, Page 26, Figure 12 and Figure 13

- a) Please provide a Table that shows the number of forced outages for All Transmission Lines, and All Major transmission Station Equipment for the years 2006 to 2015.
- b) Please provide a Table that shows the number of forced outages for the CEA Composite for All Transmission Lines and All Major Station Equipment for the years 2006 to 2015.
- c) Figure 12: Please explain the spike in 2011.
- d) Figure 13: Please explain the spikes in 2011, 2012 and 2014.

2.0-AMPCO-14

Ref: Exhibit B1, Tab 1, Schedule 3, Page 28, Figure 14

- a) Please provide a chart that shows the number of Delivery Points that are: outliers by Group Criteria only; outliers by both group and individual criteria; and outliers by individual criteria only for the years 2010 to 2014 and add 2015 data.
- b) Please identify the delivery point performance outliers from Figure 14 that are included in investment programs in the current application and provide the cost.
- c) Please explain the root cause of unreliability associated with each delivery point outlier in part(b).

2.0-AMPCO-15

Ref: Exhibit B1, Tab 1, Schedule 3

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a) Please complete the following Table:

	2010	2011	2012	2013	2014	2015
Multi-Circuit						
Delivery						
Point: Total						
# of Forced						
Interruptions						
Multi-Circuit						
Delivery						
Point: Total						
# of Forced						
Interruptions						
due to						
equipment						
failure						
Single-Circuit						
Delivery						
Point:						
Total # of						
Planned						
Interruptions						
Single-Circuit						
Delivery						
Point:						
Total # of						
Planned						
Interruptions						
due to						
equipment						
failure						

2.0-AMPCO-16

Ref: Exhibit B1, Tab 2, Schedule 2, Page 2

Preamble: One of the new communication initiatives undertaken in 2015 involved the preparation and distribution of reliability reports specific to the delivery points that supply transmission customers. These reliability reports provide a history of delivery point performance, operating events and outcomes related to these delivery points, and sustainment plans that will impact these delivery points.

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- a) Please provide the total number of reliability reports issued to date and the number of Multi-circuit and Single-circuit delivery points impacted.
- b) Please provide a copy of a reliability report related to a delivery point with a significant history of delivery point performance.

2.0-AMPCO-17

Ref: Exhibit B1, Tab 2, Schedule 2, Page 4

Preamble: Hydro One indicates it has a Power Quality Customer Working Group that is made up of Hydro One staff and industrial customers.

- a) Please describe Hydro One's key challenges with respect to power quality.
- b) Please provide the membership list and Terms of Reference for the Working Group.
- c) Please confirm the start date of the Working Group.
- d) Please discuss the progress to date on determining processes to identify, diagnose and measure power quality issues.
- e) Please provide a summary of changes implemented by Hydro One as a result of the Working Group.
- f) Please provide the meeting notes for the two power quality symposiums facilitated by Hydro One.
- g) Please provide the key conclusions and recommendations from the two power quality symposiums facilitated by Hydro One.
- h) Please provide a summary of changes implemented by Hydro One as a result of the symposiums.
- i) Please provide the name of the internationally recognized power quality expert that assisted with the symposiums.
- j) Please discuss Hydro One's process to notify customers of planned and unplanned loss of power and power quality issues.

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- k) Please discuss Hydro one's current and proposed power quality data collection capabilities.
- I) Please provide Hydro One's current Power Quality metrics.

2.0-AMPCO-18

Ref: Exhibit B1, Tab 2, Schedule 2, Page 5

- a) When does the annual Large Customer Conference take place.
- b) Please explain how input from the most recent Large Customer Conference is reflected in the current application.

2.0-AMPCO-19

Ref: Exhibit B1, Tab 2, Schedule 2, Page 7 & Attachment 1

a) Please identify the significant changes to Hydro One's proposed investment plan as a result of the Customer Engagement Work in the Spring of 2016 and the results of the consultation documented in the report prepared by Ipsos Reid (Attachment 1).

2.0-AMPCO-20

Ref: Exhibit B1-2-2, Attachment 2 Transmission Customer Engagement: Investing for the Future March 2016, Slide 9

<u>Preamble:</u> Equipment performance is the largest controllable factor, contributing 42% of system interruption minutes.

- a) Please confirm the year the data in above statement refers to.
- b) Please show how the 42% is derived.

2.0-AMPCO-21

Ref: Exhibit B1-2-2, Attachment 2 Transmission Customer Engagement: Investing for the Future March 2016, slides 11-12

a) For the Multi-Circuit System, please complete the following Table:

Contribution 2011	2012	2013	2014	2015
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to SAIDI*			
% equipment			
% tree			
contact			

b) For the Multi-Circuit System, please complete the following Table:

Contribution to SAIFI*	2011	2012	2013	2014	2015
% equipment					
% tree					
contact					

^{*} excluding planned interruptions, interruptions due to customer activity and Force Majeure events.

c) For the Single-Circuit System, please complete the following Table:

Contribution to SAIDI*	2011	2012	2013	2014	2015
% equipment					
% tree					
contact					

^{*} excluding planned interruptions, interruptions due to customer activity and Force Majeure events.

d) For the Single-Circuit System, please complete the following Table:

Contribution to SAIFI*	2011	2012	2013	2014	2015
% equipment					
% tree					
contact					

^{*} excluding planned interruptions, interruptions due to customer activity and Force Majeure events.

2.0-AMPCO-22

Ref: Exhibit B1-2-2, Attachment 2 Transmission Customer Engagement: Investing for the Future March 2016, slide 13

^{*} excluding planned interruptions, interruptions due to customer activity and Force Majeure events.

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a) Please provide the contribution to equipment related interruption duration by asset class (system wide) separately for the years 2011 to 2015.

2.0-AMPCO-23

Exhibit B1-2-2, Attachment 2 Transmission Customer Engagement: Investing for the Future March 2016, slide 15

b) Please explain spike in unplanned outage hours due to equipment failure in 2015.

2.0-AMPCO-24

Ref: Exhibit B1-2-2, Attachment 2 Transmission Customer Engagement: Investing for the Future March 2016, slide 20-21

a) Please compare Hydro One's proposed investment plan in the application to Scenario's One, Two and Three in terms of expenditure level and risk.

2.0-AMPCO-25

Ref: Exhibit B1, Tab 3, Schedule 1, Attachment 1, Page 2

Preamble: Hydro One proposes to spend \$2.1 million on Customer Power Quality under Development Capital in each of the years 2016, 2017 and 2018.

- a) Please provide a breakdown of the budget for each year.
- b) Please provide Hydro One's current definition of power quality.
- c) Please discuss how Hydro One identifies and measures a power quality event.

2.0-AMPCO-26

Ref: Exhibit B1, Tab 2, Schedule 2

<u>Preamble</u>: Hydro One indicates it has included evaluating assets that may be run-to-failure candidates (those not directly affecting transmission reliability) as part of its ongoing activity to address reliability risk.

a) Please list the assets that Hydro One currently runs to failure.

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b) Please identify potential new assets that may be run-to-failure candidates.

2.0-AMPCO-27

Ref: Exhibit B1, Tab 2, Schedule 4, Page 3

a) Please provide the major sustaining capital categories that make up each of the expenditures by outcome shown in Figure 1.

2.0-AMPCO-28

Ref: Exhibit B1, Tab 2, Schedule 4, Attachment 1

- a) Page 4: Please provide the year the level of reliability risk is expected to fall to 1.03% for conductors.
- b) Page 4: Please provide the level of reliability risk in 2017 for transmission lines and breakers and the expected reliability risk after planned work and the corresponding year.

2.0-AMPCO-29

Ref: Exhibit B1, Tab 2, Schedule 4, Page 8

Preamble: Table 1 provides the Relative Change in Reliability Risk from January 1, 2017 to December 31, 2018 as per the proposed investment level.

- a) Please provide the % of interruption duration for lines, transformers, breakers and other for 2015.
- b) Please provide the interruption duration in minutes for Lines, Transformers, Breakers and Other for each of the years 2010 to 2015.
- c) Please provide the underlying calculations including all assumptions to arrive at the values in columns 1 and 2.

2.0-AMPCO-30

Ref: Exhibit B Tab 2 Schedule 6

- a) Please complete the attached Excel spreadsheet.
- b) Please provide a live excel spreadsheet with the response.

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2.0-AMPCO-31

Ref: Exhibit B Tab 2 Schedule 6

- a) Please complete the attached Excel spreadsheet.
- b) Please provide a live excel spreadsheet with the response.

2.0-AMPCO-32

Ref: Exhibit B Tab 2 Schedule 6 Page 4

Preamble: Hydro One indicates it uses a normal expected service life (ESL) defined as the average time in years that an asst can be expected to operate under normal system conditions.

- a) Please confirm the CEA and Hydro One's transmission peers use the same definition for ESL as Hydro One currently uses.
- b) When did Hydro One begin using ESL defined as the average time in years that an asset can be expected to operate under normal system conditions?
- c) If Hydro One has implemented a new definition of ESL in this application, please provide the definition used in previous years back to 2010.

2.0-AMPCO-33

Ref: Exhibit B Tab 2 Schedule 6

a) Please identify all new asset replacement strategies brought forward since 2014.

2.0 AMPCO-34

Ref: Exhibit B Tab 2 Schedule 6

- a) Please provide the Reactive/Emergency capital budget and actuals for the years 2010 to 2015.
- b) Please provide a detailed summary of the assets replaced on an emergency basis each year.

2.0-AMPCO-35

Ref: Exhibit B Tab 2 Schedule 6

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a) Please provide the total number of assets replaced in 2014 and 2015 that were within their ESL.

2.0-AMPCO-36

Ref: Exhibit B Tab 2 Schedule 6 Page 6 Figure 3

- a) Please show the calculation #of outages/Component year for each year.
- b) Please explain the spike in 2015.
- c) Please complete the following Table:

Transformers	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
# Forced										
Outages										
# Planned										
Outages										
Total Outages										
Duration of										
Forced										
Outages										
(hours)										

2.0-AMPCO-37

Ref: Exhibit B Tab 2 Schedule 6 Page 6 Figure 8

- a) Please explain the spike in 2013.
- b) Please complete the following Table:

Circuit	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Breakers										
# Forced										
Outages										
# Planned										
Outages										
Total Outages										
Duration of										
Forced										
Outages										

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(hours)					
(Hours)					

2.0-AMPCO-38

Ref: Exhibit B Tab 2 Schedule 6 Page 26 Figure 16

- a) Please define terminal year.
- b) Please show the calculation # of outages/component per terminal year.

2.0-AMPCO-39

Ref: Exhibit B Tab 2 Schedule 6 Page 34 Figure 23

a) Please explain the spike in 2015.

2.0-AMPCO-40

Ref: Exhibit B Tab 2 Schedule 6 Page 41

a) Please complete the following Table:

Woodpole	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
# Forced										
Outages										
Duration of										
Forced										
Outages										
(hours)										

2.0 AMPCO-41

Ref: Exhibit B Tab 2 Schedule 6

- a) Page 49: Please provide the total number of steel towers in high corrosion environments.
- a) Page 51: Please explain the spike in outages in 2011.
- b) Page 54 Table 11: Please complete the following Table:

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Steel Towers	2012	2013	2014	2015	2016	2017	2018
# Replaced							
# Coated							
Budget \$							
Replaced							
Budget \$							
Budget \$ Coated							

2.0 AMPCO-42

Ref: Exhibit B1 Tab 3 Schedule 2 Page 2 Lines 1 to 7

- a) Please explain the difference between ESL and EOL related to how these terms are used by Hydro One to inform its specific investment decisions and proposed spending level.
- b) Please provide the units used for Expected Service Life (ESL) and End of Life (EOL).

2.0-AMPCO-43

Ref: Exhibit B1 Tab 2 Schedule 6 Page 36

Preamble: With respect to the capital replacement of conductors, the evidence states "The circuits being addressed in the bridge and test years have all reached end of life verified through testing and condition assessment."

a) Please explain what is meant by end of life and if it differs from End of Service Life used by Hydro One.

2.0 AMPCO-44

Ref: Exhibit B1 Tab 2 Schedule 6 Page 26 Figure 16

a) Please provide a chart to show the # of outages per year for Stations and Lines.

2.0 AMPCO-45

Ref: Exhibit B1 Tab 2 Schedule 6 Page 26 Figure 16

a) Please provide all asset condition assessment reports prepared by a third party since 2010.

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2.0-AMPCO-46

Ref: Exhibit B1 Tab 3 Schedule 1 Page 1

a) Please provide a Table that shows Hydro One's requested Budget \$, Board Approved \$ and Actual \$ for the years 2010 to 2015 under the capital categories sustaining, development, operations, common corporate costs capital and Totals.

2.0-AMPCO-47

Ref: Exhibit B1 Tab 3 Schedule 1 Page 1

a) Please provide a Table that shows the forecast in-service additions compared to actuals for the years ears 2010 to 2015 and forecast for 206 to 2018 under the categories sustaining, development, operations, common corporate costs capital and Totals.

2.0-AMPCO-48

Ref:Exhibit B1 Tab 3 Schedule2 Page 3

a) Please discuss the impact on reliability if the 2016 Sustaining Capital budget was maintained at 2015 and 2016 spending levels.

2.0-AMPCO-49

Ref: Exhibit B1 Tab 4 Schedule 1 Pages 2-5

a) Please complete the following table:

Capital Cost	2010	2015	2016	2017	2018
Drivers					
Materials					
Construction,					
Labour, Fleet &					
Equipment					
Contracts					
Engineering &					
Project					
Management					
Commissioning		`			
Interest					

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Capitalization			
Rate			
Overhead			
Capitalization			
Rate			

2.0-AMPCO-50

Ref: Exhibit B1 Tab 4 Schedule 1 Page 11

Preamble: Hydro One set annual escalation rates of 2.3% for 2017 and 2.5% for 2018 and a maximum contingency rate of 10% of the project's estimate.

- a) Please show how the annual escalation rates for 2017 and 2018 were derived.
- b) Please provide the historical annual escalation rates for the years 2010 to 2016.
- c) Please provide a Table that shows the forecast contingency rates (%) for the years 2010 to 2016 and the actual contingency rates (%) used.

2.0-AMPCO-51

Ref: Exhibit B1 Tab 4 Schedule 1 Page 12

Preamble: Hydro One indicates the portion of the engineering portfolio completed externally has grown from 14% in 2012 to roughly 25% in 2015.

- a) Please provide Hydro One's assumptions in this application regarding the % of the engineering portfolio completed externally for 2017 and 2018.
- b) Please provide the ratio of fully burdened external labour to fully burdened internal labour for the years 2010 to 2018.

2.0-AMPCO-52

Ref: Exhibit B1 Tab 4 Schedule 1 Pages 15 to 16

 a) Please provide the portion of the total capital plan completed externally compared to internally for the years 2010 to 2018.

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- b) Please provide Hydro One's assumptions in the budget for 2017 and 2018 regarding the % of work undertaken by internal resources.
- c) Please provide the % of work contracted out on a fixed-price basis for the years 2015 to 2018.
- d) Please provide the % of line refurbishment capital work that will be done by external resources in 2017 and 2018 compared to 2015.

2.0-AMPCO-53

Ref: Exhibit B1 Tab 4 Schedule 1 Page 17

a) Please provide the ratio of project estimates to project actuals for the years 2010 to 2015.

2.0-AMPCO-54

Ref: Exhibit B2 Tab 1 Schedule 1 Page 8

- a) Please provide a list of the Tier 2 and Tier 3 metrics where historical data is not available.
- b) Please provide a list of the Tier 2 and Tier 3 metrics that have not been previously measured.

2.0-AMPCO-55

Ref: Exhibit B2 Tab 1 Schedule 1 Page 9

a) Please provide the ratio of total unplanned capital work to total planned work for the years 2010 to 2015 and the forecast for 2016.

2.0-AMPCO-56

Ref: Exhibit B2 Tab 1 Schedule 1 Page 18 Table 3

a) Please provide the \$/tower coated for the years 2012 to 2015.

2.0-AMPCO-57

Ref: Exhibit B2 Tab 1 Schedule 1 Pages 19 to 21

Preamble: Hydro One that its' RCE metric uses a three year average to mitigate the effects of an abnormal number of unplanned outages due to weather related incidents.

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a) Please recast Table 4, Figure 5, Figure 6 excluding unplanned outages due to weather related incidents.

2.0-AMPCO-58

Ref: Exhibit B2 Tab 1 Schedule 1 Pages 22

a) Please provide IT costs as a % of Net OM&A & Capital Expenditures for the years 2011 to 2015.

2.0-AMPCO-59

Ref: Exhibit B2 Tab 1 Schedule 1 Pages 23

a) Please provide the ratio of unplanned work to planned work for Lines for the years 2011 to 2015.

2.0-AMPCO-60

Ref: Exhibit B2 Tab 1 Schedule 1 Attachment 1 Page 2

a) Please confirm the System Reliability data in the Scorecard includes Major Event Days.

2-AMPCO-61

Ref B2/1/1 Section 9.0

- a) Is Hydro One aware of other transmitters using RCE as a reliability and cost efficiency measure, or is it unique to Hydro One?
- b) If RCE is not unique to Hydro One, does Hydro One possess reports or other information indicating the performance of how other transmitters, especially those participating in the Navigant report?
- c) If the answer to (b) is yes, please provide whatever information Hydro One possesses regarding the RCE performance of other utilities?

2-AMPCO-62

Ref: B2/2/1 Attachment 1

a) On page 20, both figures 23 and 24 have the same horizontal axis labels. Please correct.

2-AMPCO-63

Ref: B2/2/1 Attachment 1

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Preamble: On page 21, Fig 25 shows "actual spend as % of estimate". It is unclear what this means as a measure of Hydro One's project management performance.

- a. Please identify which estimates were used to develop this chart. For example, were they initial budget estimates, study estimates, or release estimates?
- b. Did the definition of "estimate" include modifications (variance approvals) obtained after projects commenced?
- c. Does the number represented in Fig 25 represent a simple average of many projects, or a dollar weighted average (i.e., sum of estimates/sum of actuals), or some other calculation?
- d. Did all transmitters in the study use the same calculation method and definitions?
- e. Are customer connection projects included in this representation?

2-AMPCO-64

Ref: B2/2/1 Attachment 1

Preamble: Hydro One has, in all its rate hearings, repeatedly suggested that sustainment CAPEX and OM&A needs are significantly driven by asset condition considerations and that furthermore, asset condition is substantially driven by age.

a) In this study, did Navigant compare the relative ages of the assets in the peer group?

2-AMPCO-65

Ref: B2/2/1 Attachment 1

a) For Fig 27 on page 22, the label on the horizontal axis seems unrelated to the title. Please explain or correct.

Exhibit C 3.0 Cost of Service

3.0-AMPCO-66

Ref: Exhibit C1, Tab 4, Schedule 1

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- a) Please provide a table that shows Hydro One's budgeted overtime \$ compared to actual \$ spent for the years 2010 to 2016.
- b) Please provide Hydro One's overtime policy.
- c) Please confirm Hydro One's overtime policies reflect those of the Province.

3.0-AMPCO-67

Ref: Exhibit C1, Tab 3, Schedule 3

- a) Please provide Hydro One's vacancy rate for the years 2010 to 2016.
- b) Please provide the vacancy rate assumptions for 2017 and 2018.

Exhibit E 5.0 Revenue Requirement and Load Forecast

5.0-AMPCO-68

Ref: Exhibit E1/3/1 Section 4.1.1 Hydro One's Weather Correction Methodology

- a) Please confirm that the weather data used to generate Fig 3 and Fig 4 is the same as provided by Environment Canada for the weather station it identifies as "Toronto Intl A".
- b) With respect to Fig 4, is it correct to assume that a colder minimum average daily temperature would normally suggest an increase in peak monthly demand during the winter months?
- c) Would it be reasonable to assume that the minimum average daily temperature and the maximum average daily temperature for a given year would normally be established by the end of August in that year? If not, please provide information on any years when that has not been the case.

5.0-AMPCO-69

Ref: E1/3/1/Section 6 Variability of Hydro One's Load Forecasts

a) Please provide a version of Table 6, but with non – weather corrected actual demand.