



November 25, 2015

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

Re: Enersource Hydro Mississauga Inc. 2016 Price Cap IR Application
AMPCO Interrogatories
Board File No. EB-2015-0065

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,

A handwritten signature in blue ink, appearing to read "Adam White". The signature is stylized with a large, sweeping initial "A" and a long, horizontal stroke extending to the right.

Adam White
President
Association of Major Power Consumers in Ontario

Copy to: Enersource Hydro Mississauga Inc.

Enersource Hydro Mississauga Inc.

Application for electricity distribution rates and other charges effective January 1, 2016.

AMPCO Interrogatories

Question #1

- a) Please provide Enersource's customer growth rate from 2010 to 2016.

Question #2

Ref: Manager's Summary Page 28

Preamble: Enersource indicates that the main reason for increasing costs in System Renewal is due to a significant portion of the distribution equipment that was installed in the 1970's, 1980's and early 1990's having aged and reached the end of its expected useful life.

- a) Please discuss how Enersource evaluated asset age versus asset condition in determining the timing of its asset renewal programs in 2016.
- b) Please confirm Enersource's reliability goal related to the increased spending under System Renewal.

Question #3

Ref: October 2, 2015 Supplementary ICM Evidence, 2016 Capital Expenditures Projects Budget Pages 1-5

- a) Please provide a list of the planned (proactive) replacement programs that are new in 2016.

Question #4

Ref: Manager's Summary Page 28 Table 7

Preamble: Table 7 provides Equipment Failure Statistics (minutes) for the years 2010 to 2014.

- a) Please reproduce Table 7 to include another column for year to date data for 2015.
- b) Please reproduce Table 7 to include only the minutes for each cause code for equipment that is not at or beyond end of life.

Question #5

- a) Please provide Enersource's SAIDI and SAIFI results for the years 2010 to 2014 and the forecast for 2015 and 2016.
- b) Please provide Enersource's SAIDI and SAIFI results for the years 2010 to 2014 excluding Loss of Supply and Major Event Days.
- c) Please provide the contribution to SAIDI and SAIFI from Defective Equipment for the years 2010 to 2014.
- d) Please provide the total number of Customer Interruptions and Customer Interruption Minutes for the years 2010 to 2014 and 2015 year to date.

Question #6

Ref: Manager's Summary Page 28 Table 7

- a) Please provide a Table to show the Equipment Failure Statistics for 2010 to 2014 and 2015 year to date for each of the cause codes in Table 7, on the basis of number of interruptions (outages).
- b) Please provide the same Table as part (a) that includes only the number of interruptions related to equipment that was not at or beyond end of life.

Question #7

Ref: Manager's Summary Page 28 Table 7

- a) Please provide the type of equipment captured under "Overhead Equipment".
- b) Please explain the equipment captured under the Cause Code "Others".
- c) Please explain the reason for an equipment failure being categorized as "Unknown".
- d) Please provide a breakdown of the types of switches captured under "Switches".
- e) Please provide a breakdown of the types of transformers captured under "Transformers".

Question #8

Ref: Manager's Summary Page 29

Preamble: The evidence states "Figure 3 is a summary of Enersource's ACA condition-based health index by asset type for all major assets, based on the results of Enersource's Asset Condition Assessment ("ACA") performed by Kinectrics Inc."

- a) Please provide a copy of Enersource's Asset Condition Assessment ("ACA") performed by Kinectrics Inc. referred to above, and the date of the results.
- b) Please provide a copy of the ACA review undertaken prior to the ACA referred to in the preamble, and the date of these results.

Question #9

Ref: Manager's Summary Page 30 Figure 3

- a) Please provide the data requested in the Table provided as Appendix A.
- b) Please discuss the general timing of replacement for assets in each of the following categories: very poor, poor, fair, good and very good condition.

Question #10

- a) Please provide the End of Life data requested in the Table provided as Appendix B.

Question #11

- a) Please provide the failure data requested in the Table provided as Appendix C.

Question #12

- a) Please provide the historical spending data requested in the Table provide as Appendix D.

Question #13

Ref: Supplementary Evidence – System Renewal Business Case 2016-C0561-1 Page 1 of 27

Preamble: Enersource indicates that the pole line will be upgraded to current design and construction standards.

- a) Has Enersource implemented new design and construction standards since its last Cost of Service Application (EB-2012-0033)?
- b) If yes to part (a):
 - i) please explain the differences between the current design and construction standards compared to the previous design and construction standards including cost.

Question #14

Ref: Supplementary Evidence – System Renewal Business Case# 2016-C0561

Preamble: Enersource indicates the planned replacement of pole lines cost much less than emergency or reactive replacements and are less disruptive to customers.

- a) Please provide the cost difference between a planned wood pole replacement compared to a reactive pole replacement and show the calculation.

Question #15

Ref: Supplementary Evidence – System Renewal Business Case# 2016-C0561-4

- a) Please provide the number of wood pole failures and concrete pole failures for the years 2010 to 2014 and 2015 year to date for poles that were not at or beyond Expected Useful Life.
- b) PowerStream is undertaking a pole reinforcement program in addition to its pole replacement program to extend the life of certain poles. Has Enersource considered implementing a similar program. If not, why not?
- c) Please provide a listing of all of the expenditures in 2016 in addition to the Wood Pole Installations Program that include wood pole replacements and the corresponding number of forecast replacements in each.
- d) Please provide a listing of all of the expenditures in 2016 in addition to the Concrete Pole Installations Program that include concrete pole replacements and the corresponding number of forecast replacements in each.

Question #16

Ref: Supplementary Evidence – System Renewal Business Case# 2016-C0565-3

- a) PowerStream is undertaking a cable injection program in addition to its cable replacement program that is significantly less costly per metre. Has Enersource considered implementing a similar cable injection program? If not, why not?

Question #17

- a) Please provide the most recent calculation of Enersource's regulated return.

Question #18

Ref: October 2, 2015 Supplementary ICM Evidence, 2016 Capital Expenditures Projects Budget Pages 2

- a) Please provide the Emergency Replacement spending for the years 2010 to 2014 and forecast for 2015.

[illegible][illegible]

Enersource Hydro Mississauga Inc.

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AMPCO IR#10 Appendix B

| | Asset | Population | End of Life (EOL) | # At or Beyond EOL in 2015 |
|----|--------------------------------------|------------|----------------------|----------------------------------|
| 1 | Substation Transformers | | | |
| 2 | Substation Transformer Spares | | | |
| 3 | Circuit Breakers | | | |
| 4 | Pole Mounted Transformers | | | |
| 5 | Pad Mounted Transformers 1 Phase | | | |
| 6 | Pad Mounted Transformers 3 Phase | | | |
| 7 | Vault Transformers | | | |
| 8 | Pad Mounted Switchgear | | | |
| 9 | Overhead Switches 44 kV Load Break | | | |
| 10 | Overhead Switches 27.6 kV Load Break | | | |
| 11 | Overhead Switches Inline | | | |
| 12 | Overhead Switches Motorized | | | |
| 13 | UG Cables Main Feeder | | | |
| 14 | UG Cables Distribution | | | |
| 15 | Poles Wood | | | |
| 16 | Poles Concrete | | | |

Enersource Hydro Mississauga Inc.

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AMPCO IR#11 Appendix C

No. of Failures

| | Asset | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|----|--------------------------------------|------|------|------|------|------|------|
| 1 | Substation Transformers | | | | | | |
| 2 | Circuit Breakers | | | | | | |
| 3 | Substation Transformer Spares | | | | | | |
| 4 | Pole Mounted Transformers | | | | | | |
| 5 | Pad Mounted Transformers 1 Phase | | | | | | |
| 6 | Pad Mounted Transformers 3 Phase | | | | | | |
| 7 | Vault Transformers | | | | | | |
| 8 | Pad Mounted Switchgear | | | | | | |
| 9 | Overhead Switches 44 kV Load Break | | | | | | |
| 10 | Overhead Switches 27.6 kV Load Break | | | | | | |
| 11 | Overhead Switches Inline | | | | | | |
| 12 | Overhead Switches Motorized | | | | | | |
| 13 | UG Cables Main Feeder | | | | | | |
| 14 | UG Cables Distribution | | | | | | |
| 15 | UG Secondary Cable | | | | | | |
| 16 | Poles Wood | | | | | | |
| 17 | Poles Concrete | | | | | | |

EB-2015-0065 Enersource
Planned Asset Replacement
AMPCO IR#12 Appendix D

| | <u>Actual</u> | | | | | <u>Forecast</u> | |
|---|---------------|------|------|------|------|-----------------|------|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| <u>OVERHEAD</u> | | | | | | | |
| 1 Overhead Switch Replacement Program | | | | | | | |
| \$ | | | | | | | |
| # of Switches Replaced | | | | | | | |
| 2 Insulator Replacement Program | | | | | | | |
| \$ | | | | | | | |
| # of Insulators Replaced | | | | | | | |
| 3 Wood Pole Replacement | | | | | | | |
| \$ | | | | | | | |
| # of Wood Poles Replaced | | | | | | | |
| 4 Concrete Pole Replacement | | | | | | | |
| \$ | | | | | | | |
| # of Concrete Poles Replaced | | | | | | | |
| 5 Overhead Transformer and Equipment Renewal | | | | | | | |
| \$ | | | | | | | |
| # of O/H Transformers Replaced | | | | | | | |
| <u>UNDERGROUND</u> | | | | | | | |
| 6 U/G Transformer and Equipment Renewal | | | | | | | |
| \$ | | | | | | | |
| # of U/G Transformers Replaced | | | | | | | |
| 7 Padmounted Switchgear Replacement | | | | | | | |
| \$ | | | | | | | |
| # of Pad Mounted Switchgear Replaced | | | | | | | |
| 8 Underground Cable and Splice Replacement | | | | | | | |
| \$ | | | | | | | |
| # of km completed | | | | | | | |
| 9 Secondary Cable Replacement | | | | | | | |
| \$ | | | | | | | |
| # of km completed | | | | | | | |