



September 30, 2020

Ms. Christine Long
Registrar and Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th floor
P.O. Box 2319
Toronto, ON M4P 1E4

Re: Oshawa PUC Networks Inc. (OPUCN) - 2021 Electricity Distribution Cost of Service Rate Application
AMPCO Interrogatories
Board File No. EB-2020-0048

Dear Ms. Long:

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

Best Regards,

A handwritten signature in blue ink, appearing to read "Colin Anderson".

Colin Anderson
President
Association of Major Power Consumers in Ontario

Copy to: Oshawa PUC Networks Inc.

EB-2020-0048
Oshawa PUC Networks Inc. (OPUCN)
Application for electricity distribution rates and other
charges beginning January 1, 2021
AMPCO Interrogatories September 30, 2020

1-AMPCO-1

Ref: Ex 1 P24-25

The OPUCN Board of Directors consists of three (3) Committees of the Board, with each member having a specific set of skills necessary to help Management and the Board make necessary, strategic decisions while ensuring proper Governance procedures are being followed.

- a) The Finance and Audit Committee advises the Board with respect to the financial review and oversight, while ensuring that financial reporting is fair, complete, accurate, and timely.

Please provide a description of any audits over the 2015 to 2020 period relevant to the application.

- b) The Project Monitoring Committee has the job of assisting the Board in relations to practices, policies, and procedures addressing asset management and capital expenditures, and to provide major project investment oversight.

Please provide the Terms of Reference for the Project Monitoring Committee, and any significant directives provided by the Committee over the 2015 to 2020 period.

1-AMPCO-2

Ref: Ex 2 P86 Table 1-44

With respect to the Proposed Unit-Based Performance Measures related to Cost Control, please explain the purpose of the “Wrench Time” measure, how it will be calculated, how it will be applied, how targets will be set and how it fits under cost control.

2-AMPCO-3

Ref: Ex 2 P39

OPUC states “During the forecast years from 2021 to 2025, the planned capital expenditure has shifted to System Renewal and System Service requirements to improve system reliability and mitigate customer outage impacts. This can be achieved through the required replacement of end of Typical Useful Life (TUL) or high failure risk assets and grid modernization to make the distribution system more responsive in monitoring and locating power outages.”

Please define end of Typical Useful Life (TUL) as it relates to determining System Renewal Investments.

2-AMPCO-4

Ref: Ex 2-DSP P26 Table 7

Please add: All Interruptions - Excluding Loss of Supply, Major Event Days and Scheduled Outages - to Table 7.

2-AMPCO-5

Ref: Ex 2-DSP P29 Table 9

- a) Please provide further details to explain the trend in Cause Code 1 - Scheduled Outages as it relates to the capital program in each year.
- b) Please provide a breakdown of Cause Code 5 – Defective Equipment by equipment type.

2-AMPCO-6

Ref: Ex 2-DSP P30

The evidence states “The number of outages caused by Defective Equipment shows an overall increasing trend over the historical period as a result of being able to capture secondary outages when the OMS was commissioned in 2016. However, it can be inferred from Figure 4 that the number of outages caused by defective equipment including secondary outages has improved in 2019 when compared to 2018. This category is also responsible for the second highest number of outages among the cause code categories. These outages are mitigated through effective maintenance programs and renewal programs.

- a) Please define secondary outages.
- b) Please provide the data for Cause Code 5 – Defective Equipment in Table 7 excluding secondary outages.
- c) Please provide a breakdown of Cause Code 5 – Defective Equipment data by equipment type.

2-AMPCO-7

Ref: Ex 2-DSP P32 Table 11

- a) Please confirm if the data for Cause Code 5 – Defective Equipment includes secondary outages.
- b) Please provide a breakdown of Cause Code 5 – Defective Equipment by equipment type.

2-AMPCO-8

Ref: Ex 2-DSP P42

With respect to historical performance data, please provide the number of asset failures by asset type for each of the years 2015 to 2019.

2-AMPCO-9

Ref: Ex 2-DSP Appendix A P35 SR-01

- a) Please provide the total number of poles, conductors and transformers forecast for replacement over the 2021 to 2025 period.
- b) Please provide the total number of poles, conductors and transformers replaced over the 2015 to 2019 period.
- c) Please provide the total number of poles, conductors and transformers forecast to be replaced in 2020 and update the total cost.

2-AMPCO-10

Ref: Ex 2-DSP Appendix A SR-02

- a) Please provide the number of porcelain insulators and switch/cut-out arrestors to be replaced in 2020.
- b) Please update the forecast cost in 2020.

2-AMPCO-11

Ref: Ex 2-DSP Appendix A SR-03

- a) Please provide the number of poles in poor condition and very poor condition in the ACA in EB-2014-0101 and the recommended quantity to be replaced annually.
- b) Please provide the number of poles replaced annually for each of the years 2015 to 2020.

2-AMPCO-12

Ref: Ex 2-DSP Appendix A SR-04

Please provide an update on the forecast number of quick sleeves to be replaced with permanent sleeves on the 44kV primary overhead conductor lines in 2020 and the corresponding cost.

2-AMPCO-13

Ref: Ex 2-DSP Appendix A SR-05

Please provide an update on the forecast number of vault transformers to be replaced in 2020 and the corresponding cost.

2-AMPCO-14

Ref: Ex 2-DSP Appendix A SR-06

- a) Please provide the km replaced over the 2015 to 2019 period.
- b) Please provide an update on the km forecast to be replaced in 2020 and the corresponding cost.
- c) Please provide the primary cable fault analysis.
- d) Please provide the number of cable failures for each of the years 2015 to 2020.

2-AMPCO-15

Ref: Ex 2-DSP Appendix A P76 SR-07

Please provide the cost of Alternatives 2 and 3.

2-AMPCO-16

Ref: Ex 2-DSP Appendix A P79 SR-08

- a) Please provide the number of existing switchgears including relays and e-house at MSs – MS2, MS5, MS7, MS11 and MS13 have been identified in the ACA as having a poor condition and exceeding their TUL.
- b) Please provide the number of switchgears to be replaced in 2021.

2-AMPCO-17

Ref: Ex 2-DSP Appendix A P179 GP-02

- a) Please provide the number and type of vehicles forecast to be replaced in each of the years 2015 to 2019.
- b) Please provide the forecast costs for the Fleet Replacement Program for each of the years 2015 to 2019.
- c) Please provide OPUCN's Vehicle Utilization rate for each of the years 2015 to 2019 and provide the calculation.

2-AMPCO-18

Ref: Ex 2-DSP Appendix B Asset Condition Assessment (2019)

- a) Please provide a list of OPUCN's previous Asset Condition Assessments, the year completed and the party that completed the assessment.
- b) Please provide a copy of the most recent ACA prior to Metsco's 2019 Report at Appendix B.

2-AMPCO-19

Ref: Ex 2-DSP Appendix B Page 9 Table 0-1 Asset Condition Assessment Overall Results

- a) Please provide an excel version of Table 0-1 and add a column that shows the Data Availability Indicator for each asset type, and add columns to provide the number of assets by asset type in very good, good, fair, poor and very poor condition.

2-AMPCO-20

Ref: Ex 2-DSP Appendix B Asset Condition Assessment (2019) P23

The report states “Failure curves are calibrated by analyzing actual failure data against the age and/or condition parameters observed at the time of failure.”

- a) Please discuss if OPUNC calibrates failure curves by analyzing actual failure data.
- b) Please discuss if OPUNC tracks the age an asset fails.

2-AMPCO-21

Ref: Ex 2-DSP Appendix B Asset Condition Assessment (2019)

- a) Page 17- Please list the asset classes not covered in the report.
- b) Page 19 – Please discuss the maturity level of OPUNC’s ACA.
- c) Page 19 - Please discuss OPUNC’s maturity level with respect to implementation of the ISO 5500X framework.
- d) Page 34 Figure 3.1 – Please provide the number of wood poles greater than 51 years from the previous ACA.
- e) Page 35 Figure 3.2 – Please provide a version of Figure 3.2 based on data from the previous ACA.
- f) Page 44 Figure 3.9 – Please provide the circuit length metres for the cable types depicted in Figure 3.9 greater than 45 years from the previous ACA.
- g) Page 44 Figure 3.10 – Please provide a version of Figure 3.10 based on data from the previous ACA.

2-AMPCO-22

Ref: Ex 2-DSP Appendix B Asset Condition Assessment (2019) P35

The report states “The DAI for wood pole data is 100% with assumptions applied.”

Please explain “with assumptions applied” and provide the specific assumptions applied.

2-AMPCO-23

Ref: Ex 2-DSP Appendix B Asset Condition Assessment (2019) P84

METSCO recommends that OPUCN incorporate a five-level grading scheme for any asset condition inspections, where applicable to bring its practices closer to the ISO5500X recommended approaches. A five-level grading scheme will allow for more discrepancy between assets and their respective Health Index values that will be used for prioritizing assets.

Please provide an example to further explain the five-level grading scheme for asset condition inspections.

2-AMPCO-24

Ref: Ex 2-DSP Appendix B Asset Condition Assessment (2019) P84

The report states “Furthermore, METSCO recommends for OPUCN to perform annual validations of its ACA model for continuous improvements of the Health Index algorithms. There are several algorithms used by OPUCN that are not in alignment with the industry standard that can be realigned. Furthermore, additional algorithms have not yet fully been matured or developed and require additional data parameters. As OPUCN progresses with its asset inspection and data collection efforts, OPUCN is expected to be able to fully develop its ACA model.”

- a) Please provide the algorithms that are not in alignment with the industry standard that can be realigned.
- b) Please provide the algorithms that have not yet fully been matured or developed and require additional data parameters.
- c) When is OPUCN expected to fully develop its ACA model?

2-AMPCO-25

Ref: Ex 2-DSP Appendix B Pages 84-92

For key asset groups, Metsco provides the End-of-Life Criteria and the priority for each criterion as high, medium or low.

For each asset group, please provide Metsco’s assessment of the extent of the data gaps that currently exist with respect to the End-of-Life criteria, i.e. please provide a ranking of high, medium, low where for example “high” indicates that a significant amount of condition information can be collected for future assessments.

2-AMPCO-26

Ref: Appendix 2-AA

- a) Please provide the approved excel version of Appendix 2-AA from EB-2014-0101.

- b) Please provide the total number of projects identified over the 2015-2019 period.
- c) Of the original projects identified over the 2015-2018 period, please provide the total number of original projects completed during the 2015-2019 period.
- d) Please provide the total number of projects identified in the current DSP for 2021.
- e) Please provide the total number of projects identified in the current DSP over the period 2021 to 2025.

2-AMPCO-27

Please provide OPUCN's capital project management process/metrics to mitigate the risk of scope, schedule and cost variances.

4-AMPCO-28

Ref: Ex 4 P75

- a) Please provide forecast compared to actual depreciation expenses for the years 2015 to 2019.
- b) Please explain any variances.

4-AMPCO-29

Ref: Appendix 2-K

- a) Please provide an excel version of Appendix 2-K that shows a breakdown in the following categories: Executive, Management, Non-Union and Union.
- b) Please provide a breakdown of Salary and Wages including overtime and incentive pay and include in the excel table in part (a).

4-AMPCO-30

Ref: Appendix 2-K

Please summarize the positions that correspond to the increase in FTEs from 79 in 2015 to 91 in 2021, by program area.

4-AMPCO-31

Ref: Appendix 2-JC

Please add a column of 2015 OEB-approved to Appendix 2-JC and provide an excel version of Appendix 2-JC.

4-AMPCO-32

Ref: Appendix 2-JC

- a) Please summarize the increase in IT Operations in 2021 compared to 2015 OEB-Approved.
- b) Please summarize the increase in Customer Billing (outsourced) in 2021 compared to 2015 OEB-Approved.
- c) Please summarize the increase in Facilities Management in 2021 compared to 2015 OEB-Approved.
- d) Please summarize the increase in Grid Construction & Maintenance in 2021 compared to 2015 OEB-Approved.

4-AMPCO-33

Ref: Exhibit 4 P59

OPUCN purchases many services and products from third parties. Tables 4-36 to 4-40 disclose the expenditures by vendor where the annual amount exceeded \$75,000 per year, for the years 2015, 2016, 2017, 2018 and 2019, respectively.

Please provide the totals of Tables 4-36 to 4-40.

4-AMPCO-34

Ref: Appendix 2-JB

Please explain the increase in subcontractor costs for the years 2020 and 2021.

4-AMPCO-35

Ref: Appendix 4-3 Asset Depreciation Study P4

Metsco indicates:

We have independently analysed the actual useful service life for a batch of power transformers that have been retired from service at OPCUN during the past five years. The results of this analysis are summarized in Exhibit 2 and indicate the mean useful life of power transformers at OPUCN to be 39 years.

Station	Transformer	Installed Date	Removal Date	Age (years)
MS 2	T1	1975	2012	37
	T2	1968	2012	44
MS 11	T1	1971	2011	40
	T2	1979	2011	32
MS 13	T1	1968	2011	43
	T2	1968	2013	45
MS 15	T1	1976	2012	36
	T2	1967	2012	36
				Average:39

Please update the table based on transformer removals for the years 2013 to 2019.

8-AMPCO-36

Ref: Exhibit 8 P7

The proposed fixed charge for the: GS Intermediate 1,000 > 4,999 kW, and Large Use classes are above the ceiling as calculated in the cost allocation study.

Please provide the proposed fixed and variable rates and corresponding fixed and variable proportions if the fixed charge for the GS Intermediate 1,000 > 4,999 kW, and Large Use classes are set at the ceiling.

9-AMPCO-37

Reference: Ex 9 P3

- a) Please provide the scope of work for the audit.
- b) Please provide the status of the audit.