

ONTARIO ENERGY BOARD

Hydro One Networks Inc.

IN THE MATTER OF the Ontario Energy Board Act, 1998, S.O. 1998, c. 15
(Sched. B) (the Act);

AND IN THE MATTER OF an application by Hydro One Networks Inc.
for an order or orders made pursuant to section 78 of the Act,
approving or fixing just and reasonable rates for the transmission and
distribution of electricity.

**INTERROGATORIES OF
CANADIAN MANUFACTURERS & EXPORTERS (“CME”)
TO HYDRO ONE NETWORKS INC. (“HONI”)**

Interrogatory A-CME-1

Ref: Exhibit A, Tab 2, Schedule 3, page 4 of 8

HONI has proposed a supplemental stretch factor on capital of 0.15%.

- (a) Please describe any analysis HONI has performed to determine whether 0.15% is the appropriate supplemental stretch factor to apply in this instance.

Interrogatory A-CME-2

Ref: Exhibit A, Tab 3, Schedule 1, page 24 of 68

At page 24, HONI states that it also considers factors such as “load forecasts, equipment ratings, operating restrictions, security incidents, environmental risks and requirements, compliance obligations equipment defects, obsolescence, and health and safety considerations to help ensure that capital expenditures target the appropriate mix of assets”. These are in addition to the ARA process.

- (a) With respect to the ARA factors, are these quantitative or qualitative factors?
- (b) With respect to criticality, how does HONI define the impact on the system? Is it by the number of people affected (without power), the size of the load of the impacted customers, etc.?
- (c) With respect to the additional factors listed by HONI that it considers to ensure the appropriate mix of assets, how are these factors integrated into the existing ARA decision making process. For instance, with respect to “compliance obligations” or “health and safety”, these factors suggest that they would replace the normal ARA considerations and

make certain investments mandatory. In contrast, a factor such as load forecast might already be captured in the “utilization” ARA component.

Interrogatory # A-CME-3

Ref: Exhibit A, Tab 3, Schedule 1, page 24 of 68

At page 24, HONI states “many system renewal investments are informed by the asset needs assessment process.”

- (a) Please confirm which system renewal investments are not informed by the asset needs assessment process, and why they are not.

Interrogatory # A-CME-4

Ref: Exhibit A, Tab 3, Schedule 1, page 54 of 68

At page 54, HONI proposes to modify the CISVA to provide an opportunity for HONI to “catch up” on shortfalls in in-service additions.

- (a) In HONI’s proposal, please confirm whether there would be any mechanism to recompense ratepayers for the time difference of in-service additions if there are shortfalls in the early years and they are offset later on the term?

Interrogatory # A-CME-5

Ref: Exhibit A, Tab 3, Schedule 1, page 54-56 of 68

At page 54, HONI proposes to add two additional transmission variance and deferral accounts as well as five new distribution variance and deferral accounts.

- (a) Please provide HONI’s view on whether the proliferation of variance and deferral accounts undercuts the purpose of incentive regulation. Please describe fully.

Interrogatory # A-CME-6

Ref: Exhibit A, Tab 3, Schedule 1, page 60-61 of 68

At pages 60-61 HONI provides its forecast transmission and distribution load forecasts. HONI states that it forecasts transmission load to grow .2% over the 2023-2027 period. According to HONI’s evidence, this increase results from lower CDM assumptions, higher housing starts, and growth in southwestern Ontario.

- (a) In CME’s experience, there is increasing discussion regarding electrification, whether of commercial vehicles, such as Tesla cars or space heating alternatives. When forecasting Transmission load over the plan period, did HONI incorporate any increases to load as a result of electrification, why or why not?

Interrogatory B1-CME-7**Ref: Exhibit B, Tab 1, Schedule 1, Section 1.6, Attachment 1, page 1 of 29**

- (a) In Innovative's experience, does the design of the survey and/or the questions have an impact on the answers provided by those that respond to the survey?
- (b) If yes, please describe what steps Innovative took to mitigate the impact of the survey and questions on the answers provided.

Interrogatory B1-CME-8**Ref: Exhibit B, Tab 1, Schedule 1, Section 1.6, Attachment 1, page 6-7 of 29**

At pages 6 and 7, Innovative states that of the nine priorities listed, price was the highest ranked priority. Innovative also states that for concrete investment choices, customers give preference to safety and reliability.

- (a) In Innovative's experience, is it common for people to have conflicting priorities depending on how the information is presented to them?
- (b) What information can be drawn from conflicting priorities with respect to the actual needs and preferences of consumers?

Interrogatory # B2-CME-9**Ref: Exhibit B2, Tab 2, Schedule 1, Section 2.2 page 5 of 140**

At page 5, HONI states: "As such, making investment decisions based solely on such performance statistics (as opposed to a robust investment approach driven by actual condition assessment) may not address the underlying condition issues impacting performance and posing safety, reliability or environmental risks."

- (a) Does HONI track root cause analysis on outages? For instance, whether an outage was caused by failing equipment, animal contact, weather etc.
- (b) If HONI does track causes, would HONI agree that it could use performance statistics, normalized by cause to determine investment decisions?
- (c) If HONI does not track causes, how is it able to determine when an asset's condition is likely going to mean that it will fail in the upcoming plan period.

Interrogatory B2-CME-10**Ref: Exhibit B2, Tab 2, Schedule 1, Section 2.2, page 14 of 140**

At page 14, HONI states that "As of December 2020, 73 of Hydro One's transformer oil filled transformers that were manufactured pre-1985 require PCB remediation work including retrofills

or replacements. By the end of 2020, it is estimated that 271 transformers still require sampling, the majority of which are transformer bushings.”

- (a) Given that HONI has known about the requirement to remediate PCB filled transformers for some time, why hasn't more of this work been completed prior to this plan period?
- (b) Please describe how HONI's spending during the plan period would change if higher than expected levels of PCBs were found in the equipment that remains to be tested.

Interrogatory # B2-CME-10

Ref: Exhibit B2, Tab 2, Schedule 1, Section 2.2, page 86 of 140, Figure 19

- (a) What were the drivers behind the significant increase in total outage duration in 2020?

Interrogatory # B2-CME-11

Ref: Exhibit B2, Tab 2, Schedule 1, Section 2.2, page 87 of 140

At page 87, HONI states that LineVue “is non destructive and allows for a greater number of condition assessments per year and is more cost efficient when compared to removing conductor samples for laboratory testing.

- (a) Please reconcile this statement with the fact that the “needs assessment” category for conductors has increased from 21% in EB-2019-0082 to 27% in this application.

Interrogatory # B2-CME-12

Ref: Exhibit B2, Tab 2, Schedule 1, Section 2.3, Attachment 3, p. 5 of 10.

In the prior transmission proceeding, EB-2019-0082, HONI's commissioned Metsco to provide a report that outlined the average data availability across inputs for several categories for station power transformers.

- (a) Is HONI aware of the average data availability currently?
- (b) If the answer is no, does HONI have any reason to believe it is significantly different than the data availability in the Metsco report?

Interrogatory # B2-CME-13

Ref: Exhibit B2, Tab 2, Schedule 1, Section 2.3, Attachment 3, p. 5 of 10.

In its report, EPRI stated that it reviewed 208 transformers that HONI deemed to be in poor condition. Of those, it found that 36 of those transformers were not in poor or marginal condition based on their analysis. They guess that HONI likely deemed them to poor condition based on other factors other than the main tank test results.

- (a) Did HONI ever confirm why, if at all, it determined that these 36 transformers are in poor condition?
- (b) If so, to the extent that it is not in the evidence, please provide the reason(s) that each transformer is considered to be in poor condition.
- (c) Of the 36 transformers, is HONI proposing to make system renewal investments in repairing or replacing them during the plan period?
- (d) If so, please list which of the 36 transformers have investments planned for the upcoming plan period.
- (e) Given that HONI makes its determinations of transformer condition based on multiple data points (main tank and other considerations) please explain why EPRI was not provided with the data to evaluate these transformers based on all the factors used by HONI.
- (f) In EB-2019-0082, EPRI provided a report which found that results between its own analysis and HONI's analysis differed because of data issues such as oil contamination and incorrect data on HONI's part [EB-2019-0082, Exhibit I, Tab 05, Schedule 13, CME IR #13. Are there any instances of data issues such as incorrect data that contribute to EPRI's differing conclusions from HONI on the 36 transformers?

Interrogatory B3-CME-14

Ref: Exhibit B3, Tab 3, Schedule 1, Section 3.2, page 3 of 108

At page 3, HONI stated: "ESL does not drive replacement decisions. However, it can provide useful information at the fleet level for gauging overall asset demographics. ESL sheds light on the directional magnitude of possible replacement needs (but never to underpin the actual replacements) over the longer term."

- (a) When developing an application, does HONI use the estimated service life of assets to develop its overall request for funding for specific asset classes?
- (b) If the answer to (a) is no, please explain what light ESL sheds on asset investments and what purpose the Board or parties should put it to in the context of this application.

Interrogatory B3-CME-15

Ref: Exhibit B3, Tab 3, Schedule 1, Section 3.3, Attachment 2, page 13 of 21

At page 13, CNUC stated: "To assist in funding the high hazard tree removal rate, Hydro One reduced herbicide use, pausing roadside brush and most spray work."

- (a) Did HONI complete a cost benefit analysis regarding pausing herbicide use an increasing high hazard tree removal?
- (b) Were any other analyses completed on this trade-off. If so, please describe.

Interrogatory B3-CME-16**Ref: Exhibit B3, Tab 3, Schedule 1, Section 3.3, Attachment 3, page 21 of 23**

At page 21, Clear Path Utility Solutions stated that one of the drivers of variances from forecast costs was new technology deployment. Specifically, the Forestry Technology Enablement Project contributed \$5M to notification and \$5M to execution costs.

- (a) Will the FTEP provide cost savings, or are the variances listed by Clear Path Utility Solutions net of any cost savings?
- (b) If there will be cost savings, please indicate the total amount of cost savings, when they will be reaped by HONI, and how this application incorporates those savings.
- (c) If there will not be cost savings, please explain the reason for investment in the FTEP.

Interrogatory B3-CME-17**Ref: Exhibit B3, Tab 3, Schedule 1, Section 3.1, page 2 of 28**

At page 2, HONI describes the AMI 2.0 investment. HONI states that it will spend \$558 million to replace HONI's existing smart meters.

- (a) Please confirm what percentage of smart meters currently do not operate as smart meters (i.e. cannot get reliable cellular service to relay data or other issues).
- (b) Please describe what benefits ratepayers get, if any, from smart meters that aren't able to communicate with the network, or otherwise do not function as intended, compared to non-smart meters.
- (c) What does HONI estimate the cost of replacement for those smart meters to be, taking into consideration, *inter alia*, specific attributes such as their remote locations?
- (d) HONI states in its evidence that the move to AMI 2.0 will allow more meters to communicate with the network, and act as smart meters. Has HONI done any analysis on how many more meters it expects to work once they install AMI 2.0 as opposed to the 1.0 meters? If so, please provide it. If not, why not.

Interrogatory E-CME-18**Ref: Exhibit E, Tab 6, Schedule 1, Attachment 1, page 7 of 39**

At page 7, Mercer discusses how an organization that deploys a cost effective and efficient work team to any project will generally save costs.

- (a) In Mercer's view, does the opposite hold true? If an organization were to deploy an ineffective or cost inefficient work team, would that generally cause additional costs?
- (b) Would this potential inefficiency be captured as part of Mercer's report?

Interrogatory E-CME-19

Ref: Exhibit E, Tab 6, Schedule 1, Attachment 1, page 8 of 39

At page 8, Mercer describes the impact of high morale and loyalty in terms of costs.

- (a) Please provide a reference in the evidence to HONI's employees' morale and loyalty.
- (b) Has HONI's employees' morale and loyalty been compared to that of the comparator group? If so, please provide that analysis.

Interrogatory E-CME-20

Ref: Exhibit E, Tab 6, Schedule 1, Attachment 1, page 8 of 39

At page 8, Mercer describes the impact of unionized work forces, and states that the comparator group has unionized and non-unionized organizations.

- (a) Of the comparator group for the study, how many of the participant organizations are unionized and how many are non-unionized?

Interrogatory E-CME-21

Ref: Exhibit E, Tab 6, Schedule 1, Attachment 1, page 26 of 39

At page 26, Mercer's table shows that for Energy Professionals, HONI's compensation compared to the market average has been increasing, from 5% in 2008 to 10% in 2020.

- (a) Please describe the drivers of the increase from 2008 to 2020 and if HONI believes that those drivers will continue to drive a further increase in compensation above market average through the plan term.