



THE BOARD OF DIRECTORS

PATRICIA ADAMS
Chair and President
ANN CAVOUKIAN
Executive Director, PBDI, Ryerson University
GLENN FOX
Economist, University of Guelph
BRUCE PARDY
Professor of Law, Queen's University
ANDREW ROMAN
Lawyer

MAX ALLEN
Producer, CBC Radio
DAVID CAYLEY
Writer and Broadcaster
IAN GRAY
President, St. Lawrence Starch Co. Ltd.
GAIL REGAN
President, Cara Holdings Inc.
GEORGE TOMKO
Expert-in-Residence in IPSI, University of Toronto

October 26, 2021

Christine E. Long
Registrar
Ontario Energy Board
2300 Yonge Street, P.O. Box 2319
Toronto ON
M4P 1E4

Dear Ms. Long,

**RE: EB-2021-0110 – Hydro One Networks 2023-2027 Transmission and Distribution
Custom IR Application – Interrogatories of Energy Probe to Hydro One**

Attached are the interrogatories of Energy Probe Research Foundation (Energy Probe) in the EB-2021-0110 proceeding, the Custom IR Application by Hydro One Networks Inc. to the Ontario Energy Board for the approval of its 2023-2027 Transmission and Distribution rates. One of the interrogatories, A-Energy Probe-3, refers to an Excel spreadsheet that has been provided to the applicant and other parties by a separate note.

Yours truly,

Tom Ladanyi
TL Energy Regulatory Consultants Inc.
Consultant representing Energy Probe

cc. Martin Davies (OEB Staff)
Tracy Garner (OEB Staff)
Roger Higgin (Sustainable Planning Associates Inc.)
Regulatory Affairs (Hydro One Networks Inc.)
James James Sidlofsky (OEB Staff)
Intervenors of Record

Energy Probe Research Foundation 225 BRUNSWICK AVE., TORONTO, ONTARIO M5S 2M6

Phone: (416) 964-9223 Fax: (416) 964-8239 E-mail: EnergyProbe@nextcity.com Internet: www.EnergyProbe.org

Ontario Energy Board

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.

**Hydro One Networks Inc.
Joint Rates Application 2023-2027**

**Energy Probe Research Foundation
Interrogatories**

October 26, 2021

Hydro One Networks Inc.
Joint Rates Application 2023-2027
Energy Probe Research Foundation Interrogatories

A-Energy Probe-1

Reference: Exhibit A, Tab 3, Schedule 1, Page 18, Table 4, and Exhibit E, Tab 6, Schedule 1, Attachment 2A

- a) Please Provide/include the Historic 2018A-2021E values in Table 4
- b) Please calculate the Year over Year percentages and Total%
 - i) 2018-2022
 - ii) 2022 Bridge –2023 Test
- c) Please provide a variance report

A-Energy Probe-2

Reference: Exhibit A, Tab 3, Schedule 1, Page 21, Table 7, and Exhibit E, Tab 6, Schedule 1, Attach 2A

- a) Please Provide/include the Historic 2018A-2021E values in Table 7
- b) Please calculate the Year over Year percentages and Total%
 - i) 2018-2022
 - ii) 2022 Bridge –2023 Test
- c) Please provide a variance report

A-Energy Probe-3

Reference: Exhibit A, Tab 4, Schedule 1, Attachment 1, Clearspring Energy Advisors TFP Study for Transmission, Pages 50-54, Figure 14

- a) Please provide a complete listing of input and output parameters for the Transmission Industry TFP Study using the Energy Probe Template Tab1 [Attached as an Excel Spreadsheet EB-2021-0110 HONI EP- Clearspring EA TFP/Benchmarking Parameters]
- b) Specifically indicate/describe if any adjustments were made for autocorrelation and heteroskedasticity.

A-Energy Probe-4

References: Exhibit A, Tab 4, Schedule 1, Attachment 1, Clearspring EA TFP Study for Transmission Pages 50-54, Page 57 and

Figure 14: Regie Energie Quebec R-4167-2021-C-AQCIE- CIFQ-0005-DemIntv-Autre 2021-08-25(1)

- a) Please provide the results of the Clearspring EA Tx Industry TFP Analysis.
- b) Please compare and discuss the Clearspring EA Result to the recent Brattle and PEG Tx Industry TFP Studies as summarized by PEG in Reference 2.

Here is a summary by PEG of the Brattle and PEG Results and Clearspring Transmission Industry Productivity Trend calculations.

US Tx Industry Multifactor TFP Study Results			
	Brattle (OHS) (GD)	PEG (GD)	Clearspring EA (GD)
1994-2019	-1.04% -1.82%	-0.62%	-1.66%. (2000-2019)
Last 15 years	-1.69% -2.26%	-3.09%	-2.74% (2010-2019)

- c) Please confirm the extracted TFP values are correct, modify if required.
- d) Provide the average of the three studies for the period 2000-2019.
- e) Discuss whether, based on the other two Industry TFP estimates, Clearspring would/would not modify its recommendation for the HONI Transmission X factor.

A-Energy Probe-5

Reference: Exhibit A, Tab 4, Schedule 1, Attachment 1, Clearspring EA TFP Study for Transmission, Table 3, Figure 7, Pages 29-30

Preamble: “Hydro One’s ranking among the transmission benchmarking sample substantiates this total cost performance benchmark score. Each utility in the sample received a transmission cost performance score; for every utility except Hydro One, the score was based on that utility’s transmission costs in the most recent three years where data was available (compared to the model’s expected costs for that utility in those years). For Hydro One, the score was based on the average of the CIR years of 2023 to 2027 proposed costs (compared to the model’s expected costs for Hydro One in those years).⁴⁴ Hydro One’s benchmark score ranks well in the top quartile. The Company ranks 2nd out of the 60 utilities in the full transmission benchmarking sample.”

- a) Based on the Clearspring EA HONI Transmission Benchmark results, what does Clearspring recommend as an appropriate Stretch factor?
- b) Would the Stretch Factor be applied to both O&M and Capital in the 2023-2027 RCI Formula?

- c) How would inclusion or exclusion of the following costs, directionally change the Benchmark Score: Contributions in Aid of Construction, High Voltage Expenses, Customer Service and Information CSI, Pensions and Benefits? Please discuss.

A-Energy Probe-6

Reference: Exhibit A, Tab 4, Schedule, Attachment 1, ClearSpring EA TFP Study for Transmission, Table 14, Pages 60-61

Preamble: Clearspring EA concludes: “Therefore with this initial research on this topic, Clearspring is unable to identify a consistent correlation in both the transmission and distribution datasets that aligns with the theory that as capital investments increase enough to reduce capital age, OM&A should decrease. In the case of Hydro One’s capital age and its proposed change during the CIR period, this may be a moot point, given that the proposed capital investment levels are not expected to reduce the Company’s overall system age to any significant degree.”

- a) Does Clearspring agree this result is counter-intuitive? Most Ontario Distribution Utilities request increased OM&A as Plant ages.
- b) Please discuss if the Models are not properly specified, for example is Sustainment Capital included in the Net Book Value of assets? Please discuss.

A-Energy Probe-7

Reference: Exhibit A, Tab 4, Schedule 1, Attachment 1, Clearspring EA Total Cost Benchmarking Study for Distribution, Page 41, Figures 10 and 11

Preamble: “Hydro One ranking among the benchmarking sample substantiates this total cost performance score. Clearspring ranked the distribution sample using the three-year distribution cost performance benchmarking score. Each utility in the sample received a distribution cost performance score; for every utility except Hydro One, the score was based on that utility’s distribution costs in the most recent three years where data was available (compared to the model’s expected costs). For Hydro One, the score was based on the average forecasted CIR costs from 2023 to 2027 (compared to the model’s expected costs for those years). Hydro One ranks in the third quartile. The Company ranks 49th out of the 82 utilities in the full sample.”

- a) How does this 49/82 ranking compare with Hydro One Distributions Ranking under Ontario 4th Generation IRM? Please discuss.
- b) Based on the Clearspring EA TC study finding, what does Clearspring recommend for the HONI Dx Stretch Factor for 2023-2027?

A-Energy Probe-8

Reference: Exhibit A, Tab 3, Schedule 1, Page 32, Table 9

- a) Please explain the reason for the large increase in System Service capital expenditures in 2025.

- b) Why is there no Productivity offset for Distribution similar to the Productivity offset in Transmission|?

A-Energy Probe-9

Reference: Exhibit A, Tab 4, Schedule 2, Page 3

- a) Please confirm that the Revenue Cap Index formula includes escalation of the capital component of revenue requirement.
- b) Is the proposed Capital Factor is needed to recover the cost of capital expenditures above the amount already recovered by the revenue cap formula? If the answer is yes, please provide a table that shows the amount of capital recovered by the revenue cap formula and the amount of capital recovered by the capital factor separately for each year for the 2023-2027 period.
- c) How can the OEB be assured that there is no double recovery of capital expenditures?
- d) What are the incentives for capital expenditure productivity in the proposed Custom IR formula?

B2-Energy Probe-10

Reference: Exhibit B2, Tab 1, Schedule 1, Section 2.5, page 24, Table 20

- a) Are the percentages shown in the “Actual” line in Table 20 percentages of money spent or the percentage of work completed?
- b) If the percentage of work completed is not shown in Table 20, is it shown elsewhere in the evidence?

B2-Energy Probe-11

Reference: Exhibit B2, Tab 1, Schedule 1, Section 2.5, page 29

Preamble: “Hydro One’s past performance shows an increasing trend in the cost per kilometer, mainly attributable to the increase in work required to bring back corridors to design width across the province and increased work requirements to maintain urban corridors based on the transmission industry and NERC standards as discussed above and to be responsive to customers and local requirements.”

- a) What is the design width?
- b) What percentage of corridors were not at design width?
- c) Have all corridors been brought up to design width?

B2-Energy Probe-12

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.5, page 30, Table 30

- a) What were the consequences of not meeting the target in 2019?
- b) In general, are there any consequences in not meeting annual targets?

B2-Energy Probe-13

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.8, page 1, Table 1

Please provide the System OM&A amounts for 2024 to 2027 as determined by the escalation factor.

B2-Energy Probe-14

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.9, Attachment 1, Page 1, Table 2AA

If possible, please insert the column 2020 DRO Plan in Table 2AA and populate it with data. If it is not possible, please explain why not.

B2-Energy Probe-15

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.10, Pages 9 and 15

- a) What percentage of construction work is performed by Hydro One employees and what percentage is contracted out?
- b) How can the OEB be confident that Hydro One's construction labour costs are reasonable?

B2-Energy Probe-16

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.10, Page 13

- a) Is contingency estimated at the portfolio level and not at project level? If the answer is yes, please explain why. If the answer is no, please explain at what level it is estimated.
- b) Please provide more detail that explains how contingency is estimated including a numerical example.
- c) Please provide more detail that explains how and when contingency is released.

B2-Energy Probe-17

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.11 TSP, ISD-T-SA-01, New Customer Connection Station, page 2, and page 4, Table 2

Preamble: This investment is required to respond to a request from a customer to connect two facilities in the City of Toronto. Each facility will have a loading of about 60 MVA. The new facilities will be connected to the Cherrywood TS to Richview TS 230kV circuits C4R/C20R and the Parkway TS to Richview TS 230kV circuits P21R /P22R. The planned in-service date is Q4 2024.

- a) Please identify the customer. If it is not possible, please explain why not.
- b) Please file a calculation that supports the estimate of the contribution paid by the customer.
- c) When will the customer pay the contribution to Hydro One?

B2-Energy Probe-18

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.11 TSP, ISD-T-SA-04, Connect Metrolinx Traction Substations, page 3

Preamble: “The execution of each of the TPSS connection is subject to signing a Connection Cost Recovery Agreements (CCRA) with the Customer for each station.”

- a) What is the cost recovery agreement with Metrolinx? Please provide percentages of costs recovered for each category of expenditures.
- b) Please file copies of the CCRAs.

B2-Energy Probe-19

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.11 TSP, ISD-T-SA-05, Future Transmission Load Connection Plans, page 4, Table 2

Please explain how the forecast of amounts shown in Table 2 was developed using numerical examples.

B2-Energy Probe-20

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.11 TSP, ISD-T-SA-07, Secondary Land Use Projects, page 3, Table 1 and page 5, Table 3

- a) Is Metrolinx paying 100% of the \$21.7 million cost of the Don Yard Relocation project. If the answer is no, please explain why not and provide the percentage paid by Metrolinx.

- b) What proportion of the \$40 million cost of the Barrie Rail Corridor project is Metrolinx paying? Please explain your answer.
- c) Please reconcile the amounts shown in Table 1 with the amounts shown in Table 3.

B2-Energy Probe-21

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.11 TSP, ISD-T-SA-09, New Transformer Station in Northern York Region, page 3, Table 1 and page 4, Table 2

Preamble: “Commencement of the project is subject to signing a Connection Cost Recovery Agreement (CCRA) with the local distribution companies, Alectra Utilities, Newmarket-Tay Power Distribution and Hydro One Distribution, that would be supplied from the new station.”

- a) Have the three CCRA’s been signed?
- b) How much is each of the three distributors expected to contribute?
- c) How were the contribution amounts determined?

B2-Energy Probe-22

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.11 TSP, ISD-T-SR-01, Transmission Station Renewal – Network Stations, page 15, Table 3

Please add two lines to Table 2: Number of Stations, and Net Investment per Station and populate them with data.

B2-Energy Probe-23

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.11 TSP, ISD-T-SR-03, Transmission Station Renewal – Connection Stations, pages 16 to 18

Is the plan to use Alternative 3 (Bundled) for all work or is there a possibility that Alternative 1(Reactive) and Alternative 2 (Unbundled) would be used if there is a component failure at a station prior to its scheduled renewal? Please discuss.

B2-Energy Probe-24

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.11 TSP, ISD T-SR-05, Steel Structure Coating Program, page 2

Preamble: “The Investment is an exemplary program that considers repair versus replace options. In this case, repairing the asset by coating, which extends asset service life, is the preferred option that results in a significant present value positive investment.”

- a) Is the cost of coating steel structures treated as Capital or OM&A? Please explain your answer.
- b) Please file the repair versus replace present value analysis.

B2-Energy Probe-25

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.11 TSP, ISD T-SR-11, Legacy SONET System Replacement and ISD T-SR-12, Telecom Performance Improvements

- a) Please explain the relationship between ISD T-SR-11, Legacy SONET System Replacement and ISD T-SR-12, Telecom Performance Improvements.
- b) Would there be any savings if the two programs were combined? Please discuss.

B2-Energy Probe-26

Reference: Exhibit B2, Tab 2, Schedule 1, Section 2.11 TSP, ISD T-SR-15, Transmission Line Emergency Restoration, page 6, Table 2

Please explain how the costs shown in Table 2 were estimated.

B3-Energy Probe-27

Reference: Exhibit B3, Tab 1, Schedule 1, Section 3.11, DSP-Material Investment Summary Documents, pages 1 and 2, Table 1

Please add two columns to Table 1 showing 2020 OEB Approved and 2020 Actual for each Investment and populate them with data.

B3-Energy Probe-28

Reference: Exhibit B3, Tab 1, Schedule 1, DSP, ISD-SA-01, Joint Use and Relocations, page 6, Table 2

Preamble: “Hydro One expects that demand for relocation requests will continue at historic levels since municipalities continue to expand at a relatively similar rate”.

- a) Please explain how the forecast of relocation capital expenditures was prepared showing all calculations and assumptions.
- b) Why do capital expenditures for relocations decline after 2024 and increase in 2027?
- c) Please file a list of all relocation projects expected from 2023 to 2027 with costs of each project.

B3-Energy Probe-29

Reference: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SA-02, New Load Connections, Upgrades Cancellations, pages 5 to 9, and Table 3

- a) Please explain the reason for the large number of service cancellations in 2016.
- b) Please explain how the forecast of service cancellations was prepared showing all calculations and assumptions including the impact of the large number of cancellations on the forecast.
- c) Please explain how the forecast of the number of customers that will be required to pay a contribution for a connection was prepared showing all calculations and assumptions.
- d) Please explain how the forecast of the number of customers that will require service upgrade was prepared showing all calculations and assumptions.
- e) Please explain how the forecast of customer connections was prepared showing all calculations and assumptions including the type of connection, average cost per connection and average contribution per connection.
- f) Does the forecast of connections include the connections in all acquired utilities? If the answer is no, why not. If the answer is yes, please file a list showing the number of connections for each acquired utility?

B3-Energy Probe-30

Reference: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SA-03, pages 3 to 5, Connecting Distributed Energy Resources, Table 1, Table 3

- a) Please explain how the forecast of the number of customers that will require a DER connection was prepared showing all calculations and assumptions.
- b) Please explain how the forecast of the cost of attaching DER's was prepared showing all calculations and assumptions.

- c) What proportion of DER's are expected to be injecting and what proportion are expected to be non-injecting?
- d) Is the cost of attaching an injecting DER different than the cost of attaching a non-injecting DER? Please discuss giving approximate costs of each.
- e) If the cost of attaching an injecting DER is greater than the cost of attaching a non-injecting DER would the DER customer be required to pay the higher cost? Please discuss.

B3-Energy Probe-31

Reference: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-S-04, Metering Sustainment, pages 1 to 8, Figure 2, Table 2

- a) Please explain how the forecast of the cost of the sampling and verification of the meter inventory shown in Figure 2 was prepared showing all calculations and assumptions particularly the large fluctuations from year to year.
- b) Please explain how the forecast of the total investment cost shown in Table 2 was prepared showing all calculations and assumptions.

B3-Energy Probe-32

References: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SR-04, Distribution Station Refurbishment, pages 1 to 14, and Appendix A

Please explain how various projects in the Distribution Station Demand Capital Program are prioritized.

B3-Energy Probe-33

Reference: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SR-05, Distribution Station Trouble Call and Storm Damage Response Program, pages 6 and 7, and Table 2

Preamble: “The forecast expenditures for this demand program are projected from historical costs and trends. Storm response expenditures are based on an inflation-adjusted average of annual expenditures since 2005, with “outlier” years of unusually high expenditures (i.e. due to more severe storms) removed from the forecast – namely, 2006, 2013, and 2018. The expenditures for other categories of activities are guided by an inflation adjusted three year historical average.”

Please provide the calculations that were used to derive the amounts shown in Table 2.

B3-Energy Probe-34

Reference: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SR-07, Pole Sustainment Program, pages 11 and 12

- a) Are all costs of the three alternatives assumed to be capital costs or are some of the costs expected to be OM&A? Please explain your answer.
- b) Was the decision to select Alternative 2, Address Highest Risk Poles, based on a quantitative analysis such as discounted cash flow or a quantitative risk analysis or was it based on a qualitative analysis that did not use any numerical methods? If the answer is yes, please file the analysis. If the answer is no, please explain why not.

B3-Energy Probe-35

Reference: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SR-09, Submarine Cable Replacement Program, page 5

- a) Are all costs of the three alternatives assumed to be capital costs or are some of the costs expected to be OM&A? Please explain your answer.
- b) Was the decision to select Alternative 2, Planned Replacement or Refurbishment of Damaged and Exposed Cables, based on a quantitative analysis such as discounted cash flow or a quantitative risk analysis or was it based on a qualitative analysis that did not use any numerical methods? If the answer is yes, please file the analysis. If the answer is no, please explain why not.

B-Energy Probe-36

Reference: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SR-10, Distribution Lines Sustainment Initiatives, pages 10 and 11

- a) Are all costs of the three alternatives assumed to be capital costs or are some of the costs expected to be OM&A? Please explain your answer.
- b) Was the decision to select Alternative 3, Planned Lines Sustainment Initiatives, based on a quantitative analysis such as discounted cash flow or a quantitative risk analysis, or was it based on a qualitative analysis that did not use any numerical methods? If a quantitative analysis was used, please file the analysis. If the answer is no, please explain why not.

B3-Energy Probe-37

Reference: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SR-11, Life Cycle Optimization & Operational Efficiency Projects, pages 7 and 8

- a) Are all costs of the three alternatives assumed to be capital costs or are some of the costs expected to be OM&A? Please explain your answer.
- b) Was the decision to select Alternative 3, Address End of Life Assets Through Optimized System Planning, based on a quantitative analysis such as discounted cash flow or a quantitative risk analysis, or was it based on a qualitative analysis that did not use any numerical methods? If a quantitative analysis was used, please file the analysis. If the answer is no, please explain why not.

B3-Energy Probe-38

Reference: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SR-12, Advanced Meter Infrastructure, pages 33 to 38

- a) Are all costs of the three alternatives assumed to be capital costs or are some of the costs expected to be OM&A? Please explain your answer.
- b) Was the decision to select Alternative 3, Mass Replace the AMI System with a Competitively Procured AMI 2.0 System with Modern Functionality, based on a quantitative analysis such as discounted cash flow or a quantitative risk analysis, or was it based on a qualitative analysis that did not use any numerical methods? If a quantitative analysis was used, please file the analysis. If the answer is no, please explain why not.

B3-Energy Probe-39

Reference: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SS-01, System Upgrades Driven by Load Growth, page 15

- a) Are all costs of the two alternatives assumed to be capital costs or are some of the costs expected to be OM&A? Please explain your answer.
- b) Was the decision to select Alternative 2, System Upgrades to Meet Load Growth, based on a quantitative analysis such as discounted cash flow or a quantitative risk analysis, or was it based on a qualitative analysis that did not use any numerical methods? If a quantitative analysis was used, please file the analysis. If the answer is no, please explain why not.

B3-Energy Probe-40

Reference: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SS-02, Reliability Improvements, page 8

- a) Are all costs of the two alternatives assumed to be capital costs or are some of the costs expected to be OM&A? Please explain your answer.

- b) Was the decision to select Alternative 2, Targeted Reliability Improvements, based on a quantitative analysis such as discounted cash flow or a quantitative risk analysis, or was it based on a qualitative analysis that did not use any numerical methods? If a quantitative analysis was used, please file the analysis. If the answer is no, please explain why not.

B3-Energy Probe-41

Reference: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SS-03, Demand System Modifications, Table 2, page 4

Please explain how the forecast of the Gross Investment Cost was developed showing all calculations.

B3-Energy Probe-42

References: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SS-04, Energy Storage Solutions, pages 9 and 10

- a) Are all costs of the four alternatives assumed to be capital costs or are some of the costs expected to be OM&A? Please explain your answer.
- b) Was the decision to select Alternative 3, Energy Storage Solution, Draft Plan Pace, based on a quantitative analysis such as discounted cash flow or a quantitative risk analysis, or was it based on a qualitative analysis that did not use any numerical methods? If a quantitative analysis was used, please file the analysis. If the answer is no, please explain why not.

B3-Energy Probe-43

References: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SS-05, Worst Performing Feeders, pages 10 and 11, and Table 2

Question:

- a) Please explain how the forecast of the Gross Investment Cost was developed showing all calculations.
- b) Are all costs of the three alternatives assumed to be capital costs or are some of the costs expected to be OM&A? Please explain your answer.
- c) Was the decision to select Alternative 3, Continue with the WPF Investment to Improve Reliability for 600,000 Customers, based on a quantitative analysis such as discounted cash flow or a quantitative risk analysis, or was it based on a qualitative analysis that did

not use any numerical methods? If a quantitative analysis was used, please file the analysis. If the answer is no, please explain why not.

B3-Energy Probe-44

References: Exhibit B3, Tab 1, Schedule 1, DSP, ISD D-SS-06, Power Quality and Stray Voltage, page 4, Table 2

Please explain how the forecast of the Gross Investment Cost was developed showing all calculations.

B4-Energy Probe-45

References: Exhibit B, Tab 4, Schedule 1, Section 4.1 Page 8 Table 2, Figure 1 and Figure 2.

- a) Please Provide the Historic (5 year) together with the Bridge and 2023-2027 forecast, General Plant expenditures in the same format as Table 2 and Figure 1
- b) Please provide the CAGR (%) for each year and the 10 year period.
- c) Why are GP expenditures in 2022 forecast to be so low?
- d) Under the prior IRM plans for Transmission and Distribution, please provide the annual and average percentages of General Plant Expenditures as a percentage of Total CAPEX.
- e) Please provide the percentage for the current IRM plans.
- f) Provide the following Metrics 2017- 2027:
 - i) GP expenditures/MWh load
 - ii) GP expenditures/customer
 - iii) Based on the above, discuss how GP expenditures have/have not kept pace total CAPEX, load, and number of customers.

B4-Energy Probe-46

Reference: Exhibit B, Tab 4, Schedule 1 Section 4.1 Page 15

Preamble: “To support the preparation of its System Plans, Hydro One conducted an extensive customer engagement process, which informed the development of the System Plans in various respects as described in SPF Section 1.6. Two main customer engagement findings relate specifically to General Plant:

1. “...a majority of customers support Hydro One making the necessary investments in general plant to meet the same standard as similar businesses rather than just make do and only invest to address the most urgent needs.”²
2. Hydro One customers also identified “minimizing the impact on the environment” as a ‘very important’ outcome.”

- a) Please provide details of the outcomes HONI provides to customers from its GSP expenditures as to similar businesses.
- b) Please provide details of the outcomes HONI provides to customers from its GSP Environmental expenditures given that “GHG is not a driver of Hydro Ones investments”.
- c) Specifically, how much GHG will be saved by 2027 by the Transport and Work Equipment renewal (GSP Section 4.11, G-GP-01) –increasing the rate of electric vehicles from an estimate 5% of the renewal forecast in 22 2021 to 50% by 2030.
- d) What is the Incremental cost of the Electric Vehicles?
- e) Specifically, how much Energy and GHG will be saved by 2027 by the Facilities & Real Estate (GSP Section 4.11, G-GP-03) – Hydro One is implementing energy savings initiatives at Operations and Service Centres.
- f) What is the Program Cost?

B4-Energy Probe-47

Reference: Exhibit B, Tab 4, Schedule 1, Section 4.3, Page 6, Life Cycle Study Utilimarc

- a) When did Hydro One last undertake a Fleet life cycle study? Please provide a copy of the Study?
- b) How are vehicles assigned to Transmission and Distribution? Please provide the split for 2021
- c) Based on the Utilimarc Study, please provide the Capital Investment Plans related to the Historic and Proposed Scenarios (delineate by type of vehicle)
- d) Please provide the 2021 -2027 Operating Costs related to the two scenarios (fuel and maintenance)
- e) Please provide the labour hours for each scenario and annual labour cost.

B4-Energy Probe-48

Reference: Exhibit B, Tab 4, Schedule 1, Section 4.3, Attachment 3, Gartner Enterprise IT Spending and Staffing Benchmark

Preamble: Hydro One’s 2019 IT Spending as a % of Revenue was 3.9% compared to an average of 3.4% for the Peer Group, and 4.9% of OpEx compared to 4.7% for the Peer Group.

- a) The IT spending increase in 2019 over 2015 was due to significantly more capital spending. 1.8% of Revenue was spent on IT Capital in 2019, compared to only 0.8% in 2015.
- b) Please Provide a schedule that corresponds to the Data used by Gartner from 2015-2019
 - IT spend as percent of Revenue
Operational
Capital
 - IT spend as a percent of OpEx
Operational
Capital
- c) Please provide the same data for 2020 and 2021 Bridge and a projection for 2022 Test - 2027.
- d) Please reconcile the data to the IT Spending filed in this case.

B4-Energy Probe-49

Reference: Exhibit B, Tab 4, Schedule 1, Section 4.3, Attachment 3, Gartner Enterprise IT Spending and Staffing Benchmark

Preamble: “Hydro One relies much more heavily on Outsourcing (59% of IT spend in 2019) than the Peer Group (17%). Due to the magnitude of this spend (\$147 million), Gartner recommends that Hydro One conduct market price assessments to support future outsourcing contract negotiations.”

- a) Please provide a list of material outsourcing contracts reviewed by Gartner in 2019, including type of service and cost.
- b) Provide the material Outsourcing Contracts and cost for 2020 and 2021.
- c) Has HONI increased or decreased the level of outsourcing since 2019? Please provide the total amounts and % for 2020-2021.
- d) Please provide the projections for 2022 -2027.
- e) Gartner suggests HONI conduct market price assessments to support future contract negotiations. Has this been done and has this reduced the price for outsourced services? Please discuss and provide examples.

B4-Energy Probe-50

Reference: Exhibit B, Tab 4, Schedule 1, Section 4.6, Page 2

Preamble: “Hydro One has committed to transforming a portion of its fleet to plug-in electric or hybrid electric vehicles by 2030. Fleet Management Services has begun a gradual adoption of EVs, devoting 5% of its capital budget for EV purchases in 2021 and 50% by 2030 (including

but not limited to the purchase of pickup trucks, vans and heavy power take-off units, provided their procurement is feasible based on market availability and conditions). This gradual approach will balance the need to transition to a green fleet, while also minimizing potential business and operational risks associated with rapid changes in EV technology and infrastructure.”

- a) Please provide a projection of the number of electric vehicles added to the Fleet from 2020-2030. If possible, divide between Light Duty, Heavy Duty and Other. Please provide the percentage for each class/group and the Total percentage.
- b) Please provide the estimated Costs for the Infrastructure and the Incremental Cost for Electric vs Conventional vehicles.
- c) How much fuel cost will be saved in 2030?
- d) Provide an estimate of the Cost/Benefit of partial electrification of the Fleet, with and without the GHG reduction based on projected 2030 Carbon costs.

C-Energy Probe-51

References: Exhibit C, Tab 2, Schedule 2, Page 5

Preamble: “The main drivers of this overage compared to the approved category plan was increased complexity of New Load Connections, Service Upgrades, Cancellations and Metering (ISD SA-04 as part of EB-2017-0049) work as well as the influx in demand of Joint Use and Line Relocations Program (ISD SA-01 as part of EB-2017-0049) requests and Distribution Lines Trouble Call and Storm Damage Response Program (ISD SR-07 as part of EB-2017-0049) requirements.”

- a) Does Hydro One require customers with complex new load connections to pay a contribution? If the answer is no, why not? If the answer is yes, what was the amount collected in 2019?
- b) Does Hydro One require parties requesting a line relocation to share in the cost of the relocation? If the answer is no, why not. If the answer is yes, what was the amount collected in 2019 and what was the cost sharing formula?

C-Energy Probe-52

References: Exhibit C2, Tab 2, Schedule 2, Page 7

Preamble: “System Access ISAs are forecasted to average \$225.1M annually from 2023 to 2027, a 19% increase compared to years 2018 through 2022 which is primarily due to increased investment within Metering Sustainment (DSP Section 3.11, D-SA-04) and alignment of anticipated demand within New Load Connections, Upgrades, Cancellations (DSP Section 3.11, D-SA-02) based on historical trends.”

Please explain how the 19% increase figure was derived showing all calculations.

D-Energy Probe-53

References: Exhibit D2, Tab 2, Schedule 3, page 3, Table 1, and page 5, Table 3

- a) Please explain the differences between the General Counsel services provided by Hydro One Networks Inc. to Hydro One Limited and the Chief Legal Officer services provided by Hydro One Limited to Hydro One Networks Inc.
- b) Does the General Counsel of Hydro One Networks Inc. report to the Chief Legal Officer of Hydro One Limited? Please explain your answer.

D-Energy Probe-54

References: Exhibit D2, Tab 2, Schedule 3, page 5, Table 2

- a) Please provide more detail about the “grant by Hydro One Networks Inc. to Hydro One Telecom Inc. on an indefeasible right of use basis, certain dark optical fibre.”
- b) Does the use of the word grant mean that the use of the fibre is free of charge?
- c) Please explain the term “indefeasible right of use basis”.

D-Energy Probe-55

References: Exhibit D2, Tab 2, Schedule 3, page 7

- a) How often are the Affiliate SLA’s audited?
- b) Please file a copy of the most recent audit of Affiliate SLA’s.

D-Energy Probe-56

References: Exhibit D, Tab 3, Schedule 3, page 1

Please reconcile the Distribution Load Forecast with Distribution capital projects justified by load growth such as ISD D-SA-02, New Load Connections, and ISD D-SS-01, System Upgrades Driven by Load Growth. Specifically, how much load growth is provided by each capital project that is justified by load growth.

D-Energy Probe-57

Reference: Exhibit D, Tab 4, Schedule 1, page 6, Embedded Generation Forecast

- a) Does the forecast of embedded generation include both injecting and non-injecting load displacement generation?

- b) Is a forecast of large-scale energy storage included in the embedded generation forecast or anywhere else in the evidence? If the answer is no, please explain why not. If the answer is yes, please provide the forecast.

D-Energy Probe-58

Reference: Exhibit D, Tab 5, Schedule 1, page 28, Appendix C End Use Model

Does the end use model include EV charging, heat pumps, and residential storage batteries? If the answer is yes, please explain how. If the answer is no, please explain why not.

E-Energy Probe-59

Reference: Exhibit E, Tab 2, Schedule 2, Page 2, Table 1 and Exhibit E, Tab 3, Schedule 2 Table 1

- a) Please provide two tables in the same format as the referenced Exhibits, one for Transmission one for Distribution, with a calculated summary line showing for each year the Total for each category (e.g. Sustainment) of OM&A, using the OEB inflation factors.
- b) For each category for Transmission and Distribution indicate if the 2023 Budget is at, below, or above, the 2020 actual amount inflated.
- c) Please provide the answer in Excel format.
- d) Discuss the drivers that resulted in material above inflation-adjusted amounts in the 2023 Budget.

E-Energy Probe-60

Reference: Exhibit E, Tab 3, Schedule 2, Page 24, Table 8

Preamble: “Table 88(sic) provides a summary of various expenditures and programs within Hydro One’s Distribution Sustainment Lines OM&A expenditures.”

- a) Please provide the total km of overhead and underground lines in 2020.
- b) Indicate if this includes or excludes transformers maintenance for each. If transformer maintenance is under a different category please provide the OM&A related to UG and Overhead lines.
- c) Please provide an estimate of the 2023 Sustainment costs for each of underground and overhead lines.
- d) Specifically provide costs related to trouble calls in 2020 for UG and Overhead lines.

- e) Please provide the unit maintenance costs for each of UG and Overhead lines.
- f) In the DSP is Hydro One planning to increase (or decrease) the km of UG and overhead lines in 2023-2027?
- g) Discuss directionally, how this will impact future OM&A?

E-Energy Probe-61

Reference: Exhibit E, Tab 3, Schedule 2, Page 44

Preamble: “The 2023 forecast expenditures for Defect Correction (OCP) are \$122.2M which is \$18.3M or 13% lower than the 2023 figure that would result from escalating the 2018 last rebasing actual expenditure by inflation (\$140.5M). Relative to the average historical and forecast period (2018-2021), the 2023 forecast is \$10.7M lower.”

- a) Please provide a copy of the 2017 ClearPath report, “Hydro One – Forestry Survey Assessment”.
- b) Please provide a Table with the 2014-2020 data for tree contacts in total and as a % of total outages.
- c) Compare the data before and after the OCP.
- d) Discuss if the OCP has/has not resulted in less tree contacts and has improved system reliability.
- e) What does the OCP correspond to in annual tree-trimming cycle?

E-Energy Probe-62

Reference: Exhibit E, Tab 3, Schedule 2, Page 48, Table 21

Preamble: “Between 2018-2020, Hydro One has seen a nearly 50% reduction in the vegetation management cost per km.”

- a) Please support the above statement by providing numerical evidence on which it is based.
- b) Has Hydro One compared its unit cost per km to other similar utilities such as Hydro Quebec similar to the 2016 Study? If so, please provide the comparison.
- c) Show how the unit costs vary between the four vegetation areas and discuss if acquisition of southern Ontario Utilities will increase/decrease future costs.

E-Energy Probe-63

Reference: Exhibit E, Tab 4, Schedule 1, Page 1 and Attachment 1, Pages 1 and 6

Preamble: “The provision of these [CCF&S] services is centralized to enable them to be delivered to affiliates and business segments efficiently. Hydro One allocates Common OM&A

Costs to affiliates and business segments through a cost allocation methodology which is described in Exhibit E-04-08.”

- a) Please provide a comparison table showing Shared Services by category for 2018 (Rebasing) and 2023 Test year. Indicate the \$ change and % change in each category over the 5 years.
- b) Provide explanations for any increases.

E-Energy Probe-64

Reference: Exhibit E, Tab 4, Schedule 2, Appendix 2 JA and Appendix 2 JB

Preamble: Compared to 2020 OEB-approved expenses, Hydro One’s 2020 actual OM&A expenses were \$13.5M or 7.6% higher, largely due to unplanned expenses related to COVID-19 of approximately \$18M, as further described in Exhibit E Tab4 Schedule 2

- a) Please show line by line in the Appendices where the increase was due to Covid-19 Expenses and the Totals
- b) How much is HONI proposing to recover from ratepayers? Provide Totals and amounts for Tx and Dx.

E-Energy Probe-65

Reference: Exhibit E, Tab 4, Schedule 4, Page 2, Table 1

- a) Please provide the Total annual percentage increases.
- b) Please provide a line showing the Total Cost each year escalated by inflation for each year from 2018 (rebasing distribution).
- c) Are the allocations to Transmission and Distribution consistent with the B&V recommendations? Please compare the allocation percentages.

E-Energy Probe-66

Reference: Exhibit E, Tab 4, Schedule 8, Attachment 1, Table 10 Black and Veatch Report On Corporate Cost Allocation

Preamble: “There are no material changes to the outcome of the Shared Asset allocations to the Transmission and Distribution businesses. The current analysis is resulting in 38.39% to Tx and 60.6% to Dx as shown on Table 10; compared to the 38.3% to Tx and 61.7% to Dx provided in the summary Table within Black & Veatch’s Transmission report filed in EB-2019-082.”

- a) Please confirm 1.04 % is allocated to Other%. What was the Other % in 2018?
- b) Please confirm the updated Shared Asset Allocation has been applied to the 2022 Test year OM&A.

- c) Please provide a comparison Table based on Table 10 that shows the 2018 B&V Report Cost Allocations to Tx%, Dx% and Other %.
- d) Please discuss any material changes between 2018 and 2023 and the reasons for each.

E-Energy Probe-67

Reference: Exhibit E, Tab 6, Schedule 1, Attachment 1, Mercer Compensation Benchmarking Study

Preamble: “On an overall weighted average basis, for the jobs Mercer reviewed in 2020, Hydro One is positioned approximately 9% above the market total compensation (“total remuneration”) 50th percentile (“P50” or “median”). Mercer considers compensation levels to be competitive, on an overall/employee group basis, when it is within +/- 5% from the target market positioning, which is the median for Hydro One. Hydro One (on Average) is positioned 4% above this defined competitive range; down from 7% above the competitive range in the 2017 Study.”

- a) Please indicate the Total number of Incumbents in Hydro One, including positions not reviewed for each of the 3 main categories:
 - i) Non-Represented
 - ii) Energy Professionals
 - iii) Trades and Technical
- b) Please calculate the 2020 Total Compensation for each group (incumbents x average TC). Reconcile to Exhibit E Tab 6 Schedule 1 Attachment 2A Appendix 2K and E Tab 6 Schedule 1 Attachment 2B Table 1.
- c) Please calculate the above median total compensation for each group and the Hydro One Total Compensation above median.
- d) For the Professional Group, how does Hydro One Compare to OPG, IESO? Please discuss.

E-Energy Probe-68

Reference: Exhibit E, Tab 6, Schedule 1, Attachment 2A, and Exhibit E, Tab 6, Schedule 1 Attachment 2B

- a) Please provide Exhibit E Tab 6 Schedule 1 Attachment 2A Appendix 2K in Excel format
- b) Please provide Exhibit E Tab 6 Schedule 1 Attachment 2B Table 1 in Excel format
- c) Please provide a Summary of Executive Compensation - Positions (FTE), Salaries, Benefits, STI and LTI.

- d) Has Executive Compensation been Benchmarked? If so please provide the report, If not why was this not done?

E-Energy Probe-69

Reference: Exhibit E, Tab 6, Schedule1, Attachment 3, Page 1, Team Scorecard

- a) Please provide the Last 5 year's Values for each metric.
- b) Please indicate how the Threshold, Target and Exceed levels were set relative to historic values
- c) Are these fixed at 2021 Levels or change over the IRM period? If the latter, please provide projected values.
- d) Please Indicate how the Scorecard is related to total compensation, STI and LTI or Non-Represented, Professionals and (if applicable) Trades and Technical
- e) Is there a different scorecard for Executive positions? If so, please provide this.
- f) For Executive positions, do incumbents have a different STI? Please discuss provide details.

E-Energy Probe-70

Reference: Exhibit E, Tab 7, Schedule 1, Page 2, Pension Contributions

Preamble: Energy Probe wishes to understand Hydro One's progress regarding the Pension Contribution Ratio (PCR) for the 3 groups of Hydro One employees.

- a) Please provide Charts that show for the DB Pension Plan the Employer and Employee Contributions for Non-Represented, Professionals and Trades Technical employees for 2015-2021 period.
- b) Discuss the trends relative to target 50:50 contributions (Leach Report).
- c) What are the forecasts for the 2022 Test Year?

E-Energy Probe-71

Reference: Exhibit E, Tab 8, Schedule 1, page 3, and Attachment 1, Alliance Depreciation Study, and Appendix A-1, and Table BU 210; EB-2019-0082, Exhibit F, Tab 6, Schedule 1 Attach. 1, Foster Associates Depreciation Rate Review

Preamble: "Hydro One (through counsel) issued a request for proposal and selected Alliance Consulting Group (Alliance) to prepare a new depreciation study covering Hydro One Networks' transmission, distribution and common assets for the 2023 to 2027 test years. Alliance has applied the average life group, broad group depreciation methodology (BG) to group the assets

within each account. This is in contrast to the approach historically used by Hydro One based on the depreciation studies prepared by Foster. The Foster studies used the straight line, vintage group, remaining life (SL-VG-RL) depreciation methodology. Alliance has used the BG methodology instead of the vintage group (VG) methodology because the BG methodology is more widely used.”

- a) Please provide a comparison Table that shows the prior Foster Depreciation Rates and recommended Alliance Rates for Transmission.
- b) Confirm that the “Existing Accrual” in Alliance Table BU 210 Transmission Operations is consistent with the Foster Associates Study. If not explain how depreciation rates have been set from 2016-2021.
- c) What is the percentage difference in 2022 annual Depreciation Expense for
 - i) Transmission. and (based on prior Foster Associates studies),
 - ii) Common costs,
 - iii) Distribution operations?
- d) What are the implications for 2022 Depreciation Expense, of adopting the broad group depreciation methodology (BG) to group the assets within each account rather than the vintage (VG) method?
- e) What other utilities in Ontario use the BG methodology? Does the change in methodology have widespread distribution sector implications?
- f) Do US Transmission companies in reporting to FERC, use broad group depreciation methodology (BG) to group the assets within each account or the vintage (VG) method?

E-Energy Probe-72

Reference: Exhibit E, Tab 10, Schedule 1, Tables 1 and 2

- a) Please provide a Comparison Table, including the last 2 Transmission and Distribution Applications, to EB-2021-0110.
- b) Provide a variance report and discussion.

F-Energy Probe-73

Reference: Exhibit F, Tab 1, Schedule 2, Page 7, Tables 5 and 6

Preamble: Treasury OM&A costs for Transmission are provided in the long-1 term debt schedules for the 2021, 2022 and 2023 in Exhibit F-01-04 and are summarized in Table 5: Treasury OM&A costs for Distribution are provided in the long-term debt schedules for the 2021, 2022 and 2023 in Exhibit F-01-04 and are summarized in Table 6:

- a) Why are Forecast Transmission Treasury OM&A Costs higher than Distribution since all debt is issued by Hydro One and allocated to Transmission and Distribution? Is this an allocation based on the amount of debt? Please explain.
- b) Please provide the Treasury OM&A for Transmission and Distribution for the historic years 2016-2020.
- c) Please provide a variance report.

G-Energy Probe-74

Reference: Exhibit G, Tab 1, Schedule 1, page 19

Does the Capital in Service Variance Account (Account 2405) provide any incentives for productivity improvements for the management of capital expenditures? Please explain your answer.

H-Energy Probe-75

Reference: Exhibit H, Tab 9, Schedule 1, Attachment 1, Elenchus ETS Rate Cost Allocation Report, July 21, 2021

Preamble: “The May 2014 methodology was based on how the transmission system is designed and since exports needs are not considered in the planning of the transmission system, exports would not be allocated a portion of Shared Network Assets. The methodologies identified in this report account for how exports are being treated by the IESO. Exports use the transmission system almost as much as domestic customers use the system, including at peak times, therefore, exports could be allocated a portion of Shared Network Asset-related costs. If exports are to be allocated a portion of Shared Network Asset-related costs, Elenchus is of the view that exports should also then be allocated a portion of External Transmission Revenues received by HONI.”

- a) Based on 100% cost causality and the HONI Transmission projected annual exports for 2023 what would be:
 - i) the revenue generated from Export Transmission Service,
 - ii) the allocation portion of External Transmission Revenues,
 - iii) the net benefit to domestic transmission customers\$/MWh and Total, and
 - iv) the net cost to Export Transmission service customers\$/MWh?
- b) Based on 50% cost causality and the HONI Transmission projected annual exports for 2023 what would be:
 - i) the revenue generated from Export Transmission Service,
 - ii) the allocation portion of External Transmission Revenues,
 - iii) the net benefit to domestic transmission customers in \$/MWh and Total, and
 - iv) the net cost to Export Transmission service customers in \$/MWh?

- c) Based on 50% cost causality and the HONI Tx projected annual exports for 2023 what would be:
 - i) the revenue generated from Export Transmission Service,
 - ii) the allocation portion of External Transmission Revenues,
 - iii) the net benefit to domestic transmission customers in \$/MWh and Total, and
 - iv) the net cost to Export Transmission service customers in \$/MWh?
- d) If Exports had been priced under one of the current proposed 3 options, what would have been the revenue to Hydro One TX and Domestic Customers in each year from 2015 to 2022 based on Actual Export Volumes. Please provide a schedule.

H-Energy Probe-76

Reference: Exhibit H, Tab 9, Schedule 1, Attachment 2, Charles River Associates Jurisdictional Review, Appendix A, Expanded Summary of 2020 ETS rates

- a) Please clarify why TransEnergie is listed on the same basis as ISOs (it is a Tx company/exporter not an ISO).
- b) Please provide a schedule that shows the \$/MW day and \$/MWh ranges for Firm and Non-firm On-peak and Off-peak ETS for the 6 US ISOs and for the Canadian ISOs (Alberta and Ontario) and TransEnergie (Quebec).
- c) What ETS rates are charged in British Columbia?
- d) Does CRA have a recommendation for an Ontario ETS rate? If so, please provide this, with whatever caveats that may apply.

H-Energy Probe-77

Reference: Exhibit H, Tab 9, Schedule 3 -IESO Report: Market Implications of the ETS Rate.

Preamble: “Exporters contribute to the cost of the Ontario transmission system through two mechanisms. The first mechanism is through the fixed ETS rate and the second mechanism is through the dynamic ICP mechanism. When considered together, exporters not only contribute approximately \$30-40 million per year towards the transmission system through the ETS rate but have also paid an average of \$160 million per year towards the cost of the transmission system from the ICP mechanism.”

- a) Please provide a schedule that shows how much ETS and ICP revenues flowed to Ontario Domestic customers from 2015-2020.
- b) Please show how much revenue flowed to Transmission Rights Holders over the same period.

- c) When was the ICP revenue allocation changed and what was/is the basis for this? Please provide details and the change in revenue allocated to domestic customers.
- d) Why is/is not the Current Ontario ETS rate appropriate? Please discuss.
- e) The Elenchus Report suggests three cost-based ETS rates. Which does the IESO believe to be most appropriate (or does IESO prefer the status quo)?

H-Energy Probe-78

Reference: Exhibit H, Tab 10, Schedule 1, Attachment 1

- a) Please provide bar charts showing:
 - i) Network Rates/MWh for each province, for Alberta use the nearest proxy, and
 - ii) PTP rates.
- b) Provide the range for Network Rates and the average.
- c) Please comment on Ontario's position in the Provincial Cohort.

L-Energy Probe-79

Reference: Exhibit L, Tab 2, Schedule 1, pages 7 to 9, Table 6, Proposed Revenue-to-Cost Ratios for 2023-2027

Preamble: The revenue to cost ratio for the UR class is increasing over the 2023 to 2027 period which indicates that customers in this rate class are increasingly subsidizing customers in other rate classes, including customers in certain classes of Acquired Utilities which have low revenue to cost ratios.

What could be done to bring the revenue to cost ratios in the UR class closer to 1.0? Please discuss.

L-Energy Probe-80

Reference: Exhibit L, Tab 3, Schedule 1, pages 14, Table 9 - NPDI Service Area Savings

Please explain the reasons for the large difference between the NPDI Status Quo Capital Forecast and the Hydro One Actual Capital for 2014-2018.

L-Energy Probe-81

Reference: Exhibit L, Tab 3, Schedule 1, page 15, Table 10 - HCHI Service Area Savings

Please explain the reasons for the large difference between the HCHI Status Quo Capital Forecast and the Hydro One Actual Capital for 2015-2019.

Respectfully submitted on behalf of Energy Probe by its consultants,

Roger Higgin
SPA Inc.

Tom Ladanyi
TL Energy Regulatory Consultants Inc.