

IN THE MATTER OF *the Ontario Energy Board Act, 1998* (“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
rates for the transmission of electricity.

Interrogatories of
Energy Probe Research Foundation
on the Pacific Economics Group Evidence submitted by Board Staff

September 16, 2019

M1-EP-1

Reference: Exhibit M1, Page 8

Preamble: “We found that the transmission MFP of sampled utilities averaged a 1.47% annual decline over the 2005-2016 sample period chosen by PSE but only a 0.25% decline over the full sample period. OM&A productivity growth averaged -1.64% over the shorter sample period but -0.69% over the full period. Capital productivity growth averaged -1.45% over the shorter period but -0.19% over the full period.”

Interrogatory:

- a) Please provide a comparison table and a chart that shows the PEG and PSE industry productivity results for the sample for the chosen sample periods.
- b) Please provide the statistics for each.
- c) Please comment on the significance to the base productivity trend and X factor

M1-EP-2

References: Exhibit M1, Pages 14/15, Page 68, Table B3, Page 69 Table B4; Exhibit A, Tab 3, Schedule 1, Business Plan, Attachment 1, Pages 12-14

Preamble: “Based on Hydro One’s forecasted/proposed revenue requirement, proposed X factor, and forecasted annual inflation of 1.4% during the two indexing years, the Company estimates that the C-factor would average about 3.84% annually during the two indexing years of plan. RCI growth would average 5.24% annually. Thus, the C factor would accelerate allowed revenue growth substantially in 2021 and 2022.”

Interrogatory:

- a) Has PEG examined Hydro One’s TSP Capital Plan (reference above)? If so, please provide for 2020 PEG’s understanding of the breakdown of the components and gross costs - Sustainment, Common and Development-Projects approved by the IESO.
- b) Please discuss if the mandatory IESO Development projects ~ \$160 million/yr should be treated differently under the C-factor, S factor formula taking into account the ICM/ACM guidelines.
- c) Please provide a table with a revised analysis similar to Appendix B3 and B4 that assumes the IESO Development projects are a Flow-through (i.e. essentially a Y-Factor).

M1-EP-3

Reference: Exhibit M1, page 16

Preamble: “Custom IR is not a multi-year cost of service; explicit financial incentives for continuous improvement and cost control targets must be included in the application.”

Interrogatory:

- a) In PEG’s opinion, has Hydro One Transmission included in its application “*explicit financial incentives for continuous improvement and cost control targets*” for capital projects? Please explain your answer.
- b) Does the Custom IR proposed by Hydro One Transmission have the required incentives that would result in improved productivity in the execution of capital projects?

M1-EP-4

Reference: Exhibit M1, Pages 35/36

Preamble: “Table 4 reports results of our transmission productivity calculations for Hydro One. Over the full 2005-2016 sample period for which Hydro One Transmission’s historical data are available, the Company’s annual multifactor productivity growth averaged -1.17% while its OM&A productivity growth averaged 0.83% and its capital productivity growth averaged -1.67%.”

Interrogatory:

- a) Please provide a graphical representation of the Hydro One’s Productivity showing both the PEG and PSE results and projections.
- b) Please add the projections for the period 2017-2022.

M1-EP-5

Reference: Exhibit M1, Pages 37/38

Preamble: “Results of our benchmarking work are presented in Table 5. It can be seen that the Company’s transmission cost performance began a steady decline after 2008. Its cost was about 2.1% below the model’s prediction on average from 2014 to 2016, the three most recent historical years for which data for all required variables were available. The Company’s forecasted/proposed total costs are about 9.0% above the model’s prediction on average during the three years of its proposed IR plan (2020-2022).”

Interrogatory:

- a) Please provide a graphical representation of the Hydro One Transmission’s Cost Benchmark Scores for the PSE and PEG Models.
- b) Please discuss which result, the TFP Analysis or Cost Benchmark should be used in determining the RCI formula for the MRI.

M1-EP-6

Reference: Exhibit M1, Page 39

Preamble: “We believe that the **-0.25%** trend in the MFP of the U.S. power transmission industry which we calculated for our full 1996-2016 sample period is a reasonable base productivity trend for Hydro One.”

Interrogatory:

- a) Is this the first time that PEG has recommended a negative base productivity in Ontario? Please discuss, including regulatory considerations.

- b) What are the implications for 4GIRM? Is it time to update the base analysis?

M1-EP-7

Reference: Exhibit M1, Page 39

Preamble: “We disagree with PSE’s 0.0% stretch factor recommendation, which is based on the contentions that an explicit stretch factor is not warranted given Hydro One’s superior cost performance and that there is a large implicit stretch factor in the 0.0% base productivity trend.”

Interrogatory:

- a) Why is the 4GIRM an appropriate stretch factor reference for Transmission?

- b) Please show the sensitivity of the stretch factor to the cost benchmark. i.e. if the Hydro One Total Cost is at or below the benchmark by – 0.0, 2.5, 5, 7.5 and 10%.

M1-EP-8

Reference: Exhibit M1, Appendix B4, Tables B1, B2, B3, B4, Pages 61-69

Preamble: The impact of our calculations on Hydro One’s proposed C-factor is shown in Table B1. The calculations of the C-factor follow the familiar formula, $C=Cn-Scap \cdot (I+S)$.

Interrogatory:

- a) If there is CAPEX underspending (for example in 2020) and In-Service Assets are less than forecast Capex, how should the adjustment be made for the next years?

- b) Please provide an example including showing the balances in the CISVA.

- c) Please comment on the practicality of the revised adjustments, noting that actual ISA may not be available at the end of Q1.

M1-EP-9

Reference: Exhibit M1

Interrogatory:

Please provide a projection of the Hydro One Transmission Revenue Requirement for the Base Year 2020 and estimates for 2021 and 2022 using PEG's proposed RCI formula, including the C and S Factor adjustments. Please provide the result in Excel Format

Respectfully Submitted,

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