EB-2014-0116

**Ontario Energy Board**

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

**AND IN THE MATTER OF** an application by Toronto Hydro-Electric System Limited for an order approving just and reasonable rates and other charges for electricity distribution to be effective May 1, 2015 and for each following year effective January 1 through to December 31, 2019.

# Interrogatories to Pacific Economics Group

# Energy Probe Research Foundation

December 22, 2014

**EB-2013-0116**

**Toronto Hydro Electric System CIR Plan**

**Interrogatories of Energy Probe Research Foundation**

**To Pacific Economics Group Research**

**1 - Energy Probe – 1**

**Ref: PEG REPORT, Chapter 4, Page 39**

Preamble:

Precipitation is correlated with vegetationand wildlife, both of which are common causes of interruptions. For all three of these variables, the expected sign on the SAIDI and SAIFI coefficients are expected to be positive, because higher values for HDD, CDD, and precipitation are all expected to be associated with higher SAIDI and SAIFI values.

1. Why is PEG using Precipitation rather than a Percent Forestation variable (PSE) in its model?
2. What can the PEG Model tell us about the relationship between Precipitation and Tree Contact and Vegetation Management and Outages?
3. Given THESLs high Tree Contact outage history, can the PEG model be used to inform decisions on increasing/decreasing the investment in THESL’s Vegetation Management Program? Please Discuss.
4. Can simultaneous benchmarking of cost and reliability be applied to individual Reliability subsets such as Tree Contact, Defective Equipment etc.? Please discuss how this would be done for both SAIDI and SAIFI.

**1 - Energy Probe – 2**

**Ref: PEG REPORT, Chapter 5, Page 45**

Preamble:

If the Board is asked in the future to assess the statistical relationship between cost and reliability in regulatory applications, effort should be directed towards developing appropriate simultaneous benchmarking models rather than relying on statistical tools that are not fit for this purpose.

1. If customers want improved reliability what tools are available to inform the link between Cost (CAPEX and OM&A) and Reliability SAIFI/SAIDI?
2. THESL has provided Projections for Improved Reliability.



What weight should be placed on these metrics and projections and the relationship to the increased CAPEX (and to a lesser degree) OM&A Program under the CIR Plan.? Please provide PEG’s opinion(s).

**1 - Energy Probe – 3**

**Ref: PEG REPORT, Chapter 7, Page 55**

Preamble:

PEG’s review identified a number of areas in which the costs of THESL and the US were not comparably defined or measured. After correcting and/or controlling for these differences, and eliminating an unwarranted “**urban core dummy”** variable from PSE’s econometric cost model, PEG found THESL’s costs were 9.7% above its expected costs. The Company’s total costs are projected to be 34.7% above its expected costs in 2019, the final year of its Custom IR plan.

1. Please clarify the relationship between percentage of Distribution Underground and Urban Density.
2. Please discuss if the higher costs of underground transformers and other assets are only justified in high density Urban Cores.

**1 - Energy Probe – 4**

**Ref: PEG REPORT, Chapter 7, Page 55**

Preamble:

PSE found the Company’s SAIFI performance was 73% above its expected value but found THESL’s SAIDI was 50% below its expected SAIDI. PEG believes the data PSE used for its reliability benchmarking are not suitable for regulatory application, so we compiled an alternative SAIFI and SAIDI dataset and used it to estimate alternate SAIFI and SAIDI benchmarking models. Using these data and models, PEG confirms PSE’s finding that THESL’s SAIFI is far above its expected level, but we find the Company’s SAIDI is not statistically different from its expected level.

1. In PEG’s view, is SAIDI or SAIFI most important? Or alternatively are both appropriate performance measures. Please discuss.
2. Is benchmarking SAIDI or SAIFI to CAPEX valid for both measures? Please discuss.

**1 - Energy Probe – 5**

**Ref: PEG REPORT, Chapter 7, Page 56**

Preamble:

PEG believes there may be value to ratepayers in extending the period of THESL’s capital spending program. Doing so is consistent with the RRFE principles of pacing and prioritization of capital spending, while at the same time managing the pace of rate increases for customers. PEG therefore recommends that the capital expenditures in THESL’s Custom IR plan be spread out over eight years (2015-2022) rather than concentrated in five years (2015-2019).

1. Is PEG recommending extending the CIR Plan Period from 2014-2019 to 2022?
2. If NO, provide a revised analysis of the CAPEX 2014-2019 and associated PCI Price index in the format of Table 8.
3. If YES please explain the rationale for departing from the RRFE Framework.
4. Please provide a revised analysis 2014-2022 in the format of Table 8.

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