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July 5, 2019

Via RESS

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
PO Box 2319
2300 Yonge Street, 27th floor
Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: EB File No. EB-2018-0165, Toronto Hydro-Electric System Limited ("Toronto Hydro")
Custom Incentive Rate-setting ("Custom IR") Application for 2020-2024 Electricity Distribution Rates and Charges – Undertaking Responses for Day 3 of the Oral Hearing and Request for Corrections to the Oral Hearing Transcripts for Day 3 and 4

Please find enclosed Toronto Hydro's responses to undertakings J3.1 and J3.3 provided on Day 3 of the Oral Hearing. Toronto Hydro is filing its confidential responses to undertakings JX3.4 and JX3.5 under separate cover.

In addition, Toronto Hydro has reviewed the transcripts from Day 3 and 4 (July 3rd and 4th, respectively) and requests that the transcripts be corrected for the following errors:

Day 3 (July 3, 2019)

- Page 8, line 16: "133.8" should state "13.8" [Redacted Public Transcript];
- Page 81, lines 9, insert word "in" following "resulted" [Redacted Public Transcript];
- Page 124, line 2, "CEA" should state "ACA" [Redacted Public Transcript]; and
- Page 144, line 26, "H" should be replaced with "age" [Redacted Public Transcript].

Day 4 (July 4, 2019)

- Page 37, line 13, "denomination" should state "combination;"
- Page 65, line 1, "innovative" should state "intrusive;"

- Page 74, line 12, “course” should state “coarse;”
- Page 118, lines 17, 22, 26 and 28: “ACM” should state “ACA;” and
- Page 131, line 6, “have” should state “half.”

Please contact me directly if you have any questions or concerns.

Respectfully,

Daliana Coban
Manager, Regulatory Law
Toronto Hydro-Electric System Limited

cc: Lawrie Gluck, OEB Case Manager
Michael Miller, OEB Counsel
Parties of Record
Amanda Klein, Toronto Hydro
Andrew Sasso, Toronto Hydro
Charles Keizer, Torys LLP

ORAL HEARING UNDERTAKING RESPONSES TO SCHOOL ENERGY COALITION

UNDERTAKING NO. J3.1:

Reference(s): 2B-Staff-80 (d)

In reference to interrogatory Staff 80 or 81, to make available on the record the excerpt that is relied upon in answer to (d) of the undertaking, as referenced in EB-2012-0064.

RESPONSE:

Appendix A contains the excerpt referred to in Toronto Hydro's response to interrogatory 2B-Staff-80 (d) (EB-2012-0064, Exhibit B, Tab 2, Schedule B6, pages 32-37). In this excerpt, Toronto Hydro explains the various reasons why it is not feasible to replace overhead rear lot distribution assets with overhead front lot distribution assets. These reasons are also summarized in Toronto Hydro's evidence for the Real Lot Conversion segment at pages 27-28 of Section E6.1 in Exhibit 2B.

IV ALTERNATIVES FOR ADDRESSING REAR LOT CONSTRUCTION

1. Alternatives Considered

THESL has considered four alternatives to address the issues associated with rear lot service:

- Option 1, remediation where aged rear lot facilities are repaired/replaced on an as-needed basis;
- Option 2, rebuild rear lot distribution to ensure poles and assets meet current safety regulations;
- Option 3, replace overhead rear lot distribution assets with overhead front lot distribution assets; and
- Option 4, replace overhead rear lot distribution assets with underground front lot distribution assets.

Table 4 provides a summary of each of these four options.

Table 4: Summary of rear lot conversion options considered by THESL

Option	Summary of Procedure
Option 1 Remediation, where only aged assets are repaired/replaced aged assets on an as-needed basis	▪ All poles, transformers and assets remain as is ▪ Repairs are done on an as-needed basis to the defective assets

Option	Summary of Procedure
Option 2 Rebuild rear lot distribution	▪ Trench property owners' backyards to upgrade the underground cables passing through their yards ▪ Remove existing poles and transformers ▪ Perform necessary tree-trimming ▪ Install new poles, cable covers to protect the cables going into the risers ▪ Install new transformers ▪ Backfill the trench, re-sod the yard ▪ Restore power to the customers
Option 3 Replace overhead rear lot distribution assets with overhead front lot distribution assets	▪ Transformers, primary cable, secondary bus installed overhead on poles ▪ Secondary services supplied from poles/mid-span taps
Option 4 Replace overhead rear lot distribution assets with underground front lot distribution assets	▪ Primary and secondary bus installed in concrete-encased ducts within city road allowance ▪ Above grade low-profile or below grade submersible transformers to be installed ▪ Secondary services on private property to be installed in underground direct buried duct to existing meter base locations ▪ Meter bases to be changed from overhead to underground where required

Options 1 and 2 do not address or resolve the underlying safety and reliability issues associated with rear lot service. These Options would perpetuate the safety, cost, reliability and customer service issues described in Section III. They would also require continuing intrusion into the affected backyards, disrupting customers' use and enjoyment. If the remediation or rebuild were to occur in the winter, crew access would become more challenging. If carried out in the

summer, homeowners would lose the use of their backyards, a time when they most want to enjoy them.

Further, these intrusions will provide little lasting benefit. As soon as an animal contact occurs, or a serious storm takes place, resulting in an unplanned outage, homeowners will be inconvenienced, once again, by crews accessing their properties. In the meantime, the safety risks for THESL's crews and customers remain.

With regard to Option 3, replacement of overhead rear lot distribution assets with overhead front lot distribution assets, Table 5 provides an overview developed by THESL's Standard Design Practice Team regarding the challenges involved in installing overhead service.

Table 5: Overview of THESL Standard Design Practice Team's considerations for overhead distribution design

Challenge	Reason
Customer acceptance Customers will be reluctant to accept a new pole line in front of their property for the enumerated reasons	▪ Streetscape aesthetics will be negatively impacted with the installation of poles, pole-mounted transformers, overhead primary and secondary cables, and serviced cables ▪ Customer acceptance of a pole installation in front of their property will be difficult to obtain, in most cases ▪ Customers may view this installation as decreasing the value of their properties
City approval Obtaining City approval will be challenging	▪ Negative impact on streetscape aesthetics ▪ Increased customer complaints ▪ Any 'above ground' utility installation is met with a higher level of City scrutiny. For example, Ward 2 in Etobicoke required a site meeting with the Councillor prior to any new/relocated down guy installation
Tree Trimming	▪ This option will continue all the problems associated with overhead plant ▪ Existing areas have mature trees which will require extensive tree trimming to accommodate clearances for installation of poles, primary and secondary bus, secondary services and transformers. Relative to the undergrounding option, this will increase operating costs due to increased tree trimming required ▪ Negative impact on neighbourhood aesthetics
Toronto Hydro Corporate Communications	▪ Increased resources required to deal with an extensive community outreach initiative ▪ Delays are expected to occur in situations where customers reject the overhead design option and mobilize to oppose it

Challenge	Reason
Scheduling	▪ In the event the overhead option is ultimately rejected due to customers' complaints and THESL is required to install underground service, delays of six months to a year to redesign and obtain approvals can be expected
Foreign Attachments	▪ There may be instances where foreign attachments (Bell, Rogers) remain on the existing rear lot pole line. Customers will be reluctant to accept pole lines in both the rear and the front of their property

Table 6 provides a summary comparison of Option 3 (replacement with overhead front lot distribution assets) and Option 4 (replacement with underground front lot distribution assets), the two options considered for conversion of rear lot plant.

Table 6: Summary of the two rear lot conversion options

Criteria	Option 3 OH	Option 4 UG
Safety	Favourable	Highly Favourable
Customer Service Initiative	Least Favourable	Highly Favourable
Corporate Communications	Least Favourable	Highly Favourable
Customer Acceptance	Least Favourable	Highly Favourable
City Approvals	Least Favourable	Favourable
Reliability	Least Favourable	Highly Favourable
Tree Trimming	Least Favourable	Favourable
Construction Cost (Initial)	Highly Favourable	Least Favourable
Service Connections	Least Favourable	Favourable
Scheduling	Least Favourable	Favourable

As is evident from Table 6, Option 4 (replacement with underground front lot distribution assets) is the more favourable option on every dimension, except initial construction cost. This Option's higher initial construction cost is expected to be overcome, however, by the lower overall cost of ownership including lower maintenance, community engagement, and customer outage cost. When comparing the overhead and underground front lot options, the underground solution provides a cost of ownership that is approximately $47.97M less when compared to the overhead solution. This difference in cost of ownership is due to the reduced risks associated with the underground plant when compared to the overhead plant, when accounting for risks pertaining to asset failure as well as non-asset-related risks associated with weather, animal and human-related events, which are directly associated to the overhead system. As Option 4 is expected to be the most favourable option from the customers' perspective, it is recommended.

ORAL HEARING UNDERTAKING RESPONSES TO POWER WORKERS UNION

UNDERTAKING NO. J3.3:

Reference(s): Exhibit K3.2

To review and confirm whether Toronto Hydro is in agreement with the change numbers in the tables at page 3 and page 5 of Exhibit K3.2.

RESPONSE:

Toronto Hydro confirms that the referenced information is accurate and consistent with the utility's calculations.