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December 18, 2018

Reply To: Thomas Brett
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Our File No. 184158

VIA RESS, EMAIL AND COURIER

Ontario Energy Board
2300 Yonge Street
27th Floor
Toronto, Ontario
M4P 1E4

Attention: Kirsten Walli,
Board Secretary

Dear Ms. Walli:

**Re: EB-2018-0165: Toronto Hydro-Electric System Limited, Application for Electricity
Distribution Rates beginning January 1, 2020 until December 31, 2024**

Please find enclosed herewith BOMA's Interrogatories.

Yours truly,

FOGLER, RUBINOFF LLP

Thomas Brett

TB/dd

Encls.

cc: All Parties (*via email*)

ONTARIO ENERGY BOARD

Toronto Hydro-Electric System Limited

**Application for Electricity Distribution Rates beginning
January 1, 2020 until December 31, 2024**

**INTERROGATORIES OF
BUILDING OWNERS AND MANAGERS ASSOCIATION, GREATER TORONTO
("BOMA")**

December 18, 2018

Tom Brett
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Interrogatories of BOMA

1B-BOMA-1

[Exhibit 1B, Tab 1, Schedule 1, Appendix A]

Please provide a table in the format which shows, for each forecast annual percentage increase bill, the percentage of change in THESL's distribution rate.

1B-BOMA-2

[Exhibit 1B, Tab 1, Schedule 1, Appendix A]

Please confirm that data in Appendix A represent bill changes for the average volume customers in each rate class. If this is not the case, please explain.

1B-BOMA-3

[Exhibit 1B, Tab 1, Schedule 1, pp6-7]

Please explain how these limits and caps were derived.

1B-BOMA-4

[Exhibit 1B, Tab 1, Schedule 1, p7]

Please provide the actual and forecast operational plan budget (the number corresponding to the \$277M cited on p7 for each of 2015, 2016, 2017, 2018, and 2019.

1B-BOMA-5

[Exhibit 1B, Tab 1, Schedule 1, p7]

- (a) Please provide details of the \$75M per year eliminated from THESL's capital plan in response to the \$560M cap.
- (b) Please point to the specific customer responses that led to THESL revising the capex and OM&A amounts cited.

1B-BOMA-6

[Exhibit 1B, Tab 1, Schedule 1, p14]

Please provide comparable storm data for the previous eighteen (18) month period.

1B-BOMA-7

[Exhibit 1B, Tab 1, Schedule 1, p14]

What steps is THESL taking to protect underground vaults and related equipment from future flooding? Please provide details.

1B-BOMA-8

[Exhibit 1B, Tab 1, Schedule 1, pp20-21]

- (a) Please complete the Table on pp20 and 21. For the p21 Table, please list each of the forty-four (44) performance measures, with an explanation of how each of the forty-four (44) relates to the four (4) RRF Outcomes.

- (b) With respect to the p20 Table, please show for each of the forty-four (44) performance measures, the projects and programs that are the subject of the response are put in place to advance the measures.

1B-BOMA-9

[Exhibit 1B, Tab 1, Schedule 1, p 22, Table 3]

- (a) What are the reasons for the rather poor performance in Telephone Calls Answered On Time given that the overall trend is negative.
- (b) Please discuss steps THESL is taking to improve its performance in this area.

1B-BOMA-10

[Exhibit 1B, Tab 1, Schedule 1 (General)]

- (a) Please provide a summary of THESL's asset assessment which provides for each major asset category, the number and percentage of assets that are in very poor, poor, fair, good, and very good condition.
- (b) Please provide a copy of THESL's business plan for 2020, and whatever additional years are included in the 2020 plan.

1B-BOMA-11

[Exhibit 1B, Tab 3, Schedule 1, p4, Table 1]

- (a) Please confirm that the cumulative distribution rate increase (arithmetic) over the 2020-2024 term of the IRM area Residential (750 kWh/month) is 8.8%, and General Service < 50 kW (2,000 kWh/month) is 9.5%.

- (b) What is the compounded growth rate in rates over five (5) year term that corresponds to the rate increases in part (a)?
- (c) Please provide answers to (a) and (b) above for each of the other rate classes.
- (d) For each of (a) and (b) above, the rate increases for customers with twice, three times, and four times, the monthly volumes used by THESL in their examples.
- (e) Please provide the same data for the current IRM five (5) year program which ends on December 31, 2019.

1B-BOMA-12

[Exhibit 1B, Tab 2, Schedule 1, p4]

- (a) Please explain each of the four (4) THESL corporate pillars. Please rank order the six (6) customer priorities listed on p4, with an explanation for the ranking.
- (b) Please explain what is the low volume threshold for the four (4) groups referred to at p5.
- (c) How does each of the six (6) "key outcomes" set out on p5, relate to each of the four (4) RRFE outcomes? Please provide a detailed explanation.

1B-BOMA-13

[Exhibit 1B, Tab 2, Schedule 1, p9]

What is TRIF, for 2017; for 2018, to date; what are NEER costs, and WSIB performance index for 2017, and anticipated for 2018?

1B-BOMA-14

[Exhibit 1B, Tab 2, Schedule 1, p10]

Why is the Restricted Work Severity Rate almost three times the CEA average?

1B-BOMA-15

[Exhibit 1B, Tab 2, Schedule 1, p11]

Please explain the difference between sick days and absentee rate.

1B-BOMA-16

[Exhibit 1B, Tab 2, Schedule 1, p12]

What will be the impact of the elimination of NEER on THESL's WSIB premium costs?

1B-BOMA-17

[Exhibit 1B, Tab 2, Schedule 1, p14]

What accounts for the year to year variability in percentage of Order to Operate completed prior to work execution?

1B-BOMA-18

[Exhibit 1B, Tab 2, Schedule 1, p17]

Preamble: *"Toronto Hydro's Customer Care program invests in a number of automation processes that eliminates the need for manual work. This leads to cost savings. For instance, through various initiatives, the utility encourages the use of customer self-service features on Toronto Hydro's website to provide easier customer access to information and to reduce the need for customer contact. This decreases the volume of customer contact for the call centres and allows optimization of the use of lower cost outsourced labour. For instance, since call-centre business hours were expanded to 8:00 p.m., Toronto Hydro's third-party service provider has been used exclusively to provide lower cost call handling resources and customer service."*

- (a) Please confirm that THESL has outsourced its call handling and customer service.
- (b) Please explain what aspects of customer service, including call-handling, are provided by a third party, the identity of the third party(ies) and the contract(s) between THESL and the third party(ies). Please explain why the outsourcing decision was made.

1B-BOMA-19

[Exhibit 1B, Tab 2, Schedule 1, p18]

Please provide details of the allocation of the proceeds of the sale of Eglinton property in 2018.

1B-BOMA-20

[Exhibit 1B, Tab 2, Schedule 1, p19]

- (a) Please provide a copy of a typical Mutual Assistance Agreement THESL uses.
- (b) Please provide details of further fleet reduction plans in 2020-2024.

1B-BOMA-21

[Exhibit 1B, Tab 2, Schedule 1, p20]

Is the comment on answering calls on time correct?

1B-BOMA-22

[Exhibit 1B, Tab 2, Schedule 1, p28]

Why did the Customer study use a peer group of utilities with an average number of customers approximately fifty percent (50%) larger than the number of THESL customers?

1B-BOMA-23

[Exhibit 1B, Tab 4, Schedule 1, p2]

Please provide the data for 2018 (to date) and 2019 (forecast) against which forms the base for the 2020 cost of service test year forecast.

1B-BOMA-24

[Exhibit 1B, Tab 4, Schedule 1, p7]

- (a) Please explain the difference between the PSE forecasting model and the PEG forecasting model.
- (b) Please explain why THESL proposes to use the PSE model rather than the PSE model used by the Board.

1B-BOMA-25

[Exhibit 1B, Tab 4, Schedule 1, p7]

- (a) Please confirm that under the Custom Capital Factor, the Board does not review each proposed capital project, as would be the case under a fourth generation IRM regime, using an I-X rate escalator, and ICM financing for capital expenditures above the general materiality threshold. How do the Board and stakeholders obtain an equivalent level of scrutiny of the five (5) year capital budget? Please explain fully.
- (b) Please confirm that the Custom Capital Factor is set at a rate which is inclusive of its reduction to avoid double billing, to provide the incremental funding required to finance the proposed capital budget over the five (5) year period.

1B-BOMA-26

[Exhibit 1B, Tab 4, Schedule 1, p9]

- (a) Please provide the forecast closing rate base (and rate base as at December 31, 2018) and the forecast closing rate base at December 31, 2019.
- (b) Are the rate base numbers cited in Table 2 average numbers, or opening, or closing numbers?

1B-BOMA-27

[Exhibit 1B, Tab 4, Schedule 1, p13, Table 5]

Please provide a detailed calculation for the CPCI in 2020, which shows clearly how C_n (3.43) is reduced by S_{cap} (71.9) and g (0.2) to average at CPCI of 3.26. Please confirm that the same calculation applies for each subsequent year.

1B-BOMA-28

[Exhibit 1B, Tab 2, Schedule 2, p3, Table 1]

Please provide missing numbers in the "2017" column. Please provide actual ROE for 2018 (when available). Please provide the results for 2018 when available.

1B-BOMA-29

[Exhibit 1B, Tab 2, Schedule 2, p5]

- (a) What is the number for calls answered on time for 2018 to date?
- (b) Why does not THESL plan to improve upon the industry standards which seem extraordinarily low?

(c) What are comparable standards in other provinces or US states?

1B-BOMA-30

[Exhibit 1B, Tab 2, Schedule 2, p9]

What measures does THESL plan to implement to increase its customer satisfaction rating from eighty-three percent (83%)?

1B-BOMA-31

[Exhibit 1B, Tab 2, Schedule 2, p10]

Please provide a copy of the most recent customer concerns survey (Electrical Safety Authority).

1B-BOMA-32

[Exhibit 1B, Tab 2, Schedule 2, p10]

Please provide SAIDI and SAIFI numbers for 2018. Why is THESL not proposing to improve on SAIDI/SAIFI over the 2020-2024 period?

1B-BOMA-33

[Exhibit 1B, Tab 2, Schedule 2, p11]

Please provide the calculation that led to efficiency ranking of 5. How does 5 compare to the ranking of the largest Ontario utilities? Please provide 2017 numbers, and 2018 when available.

1B-BOMA-34

[Exhibit 1B, Tab 2, Schedule 2, p21]

- (a) What percentage of capital cost of project consists of direct labour and indirect labour over the 2013-2017 period?
- (b) What accounts for the differential between projects constructed by internal crews and contracted out projects?

1B-BOMA-35

[Exhibit 1B, Tab 2, Schedule 4, p7]

- (a) Does THESL have a comprehensive plan to increase resiliency in the face of a growing number of extreme weather events?
- (b) Please provide 2018 figures for all graphs in this schedule when available.

1B-BOMA-36

[Exhibit 1B, Tab 3, Schedule 1, p6]

THESL states that Innovative had concluded that:

"majorities of residential, small business, mid-market and key account customers say [the utility] should stick with its proposed plan or do more".

Please provide the basis for this statement, with reference to the results of specific questions on the Innovative surveys.

1B-BOMA-37

[Exhibit 1B, Tab 3, Schedule 1, p12 and DSP Exhibit 2B, D3, and E6.7]

Why are Worst Performing Feeder Programs not integrated into the capital budget as a first priority. Please explain fully.

1B-BOMA-38

[Exhibit 1B, Tab 3, Schedule 1, Attachment A, p2]

Were customers able to review the cumulative rate impact of their choices and adjust them if needed? If not, why not?

1B-BOMA-39

[Exhibit 1B, Tab 3, Schedule 1, Attachment A, p3]

Preamble: *"Customers consistently, across rate classes value price and reliability above other priorities, with price constantly at the top priority for non-large use customers."*

Given that priority, why is THESL proposing a plan that will increase customer rates by over three percent (3%) per year, over the plan term?

1B-BOMA-40

[Exhibit 1B, Tab 3, Schedule 1, Attachment A, p7]

Please provide a list of the key accounts.

1B-BOMA-41

[Exhibit 1B, Tab 3, Schedule 1, Attachment A, p8]

- (a) Please reconcile the Summary of Customer Priorities Table on p5, with the Customer Priorities Table on p8 (and the Ranked Outcomes Table on p7), both of which said prices are the top priority for low volume customers, with the statement on p7, that:

"Similar to what was observed in the previous focus group research, safety, reliability, and price are seen as equally important to low-volume customers."

- (b) For key accounts, please confirm that reliability and performance were the key priorities (price 68%, reliability 72%).

1B-BOMA-42

[Exhibit 1B, Tab 3, Schedule 1, Attachment A, p15]

Innovative asked small volume and mid-market customers the following question:

"Based, in part, on the initial customer input, Toronto Hydro has drafted a plan totaling approximately \$4.3B over five years."

Toronto Hydro's proposed plan focuses on delivering current levels of reliability and customer service for most customers and targeted improvements for customers experiencing below average service or who have special reliability needs, like hospitals."

This proposed plan translates into an average 3.4% increase in your distribution rates each year from 2020 to 2024. The distribution charges on the monthly bill would increase to \$49 by 2024 for a typical residential customer."

Please confirm that the largest plurality of residential, small business, and mid-market customers disagreed with the annual rate increase proposed distribution rate increases (3.4% - Residential; 4.4% - Small Business; 3.9% - Mid-Market) to fund the \$4.3B plan; they considered it the wrong approach.

1B-BOMA-43

[Exhibit 1B, Tab 3, Schedule 1, Attachment A, p16]

Why did Innovative ask customers specific trade-off question for specific investment projects, as it did recently in the Alectra proceeding (EB-2018-0016)?

1B-BOMA-44

[Exhibit 1B, Tab 5, Schedule 1, p3]

What specific additional escalators were applied to capital expenditures over the plan term?

1B-BOMA-45

[Exhibit 1B, Tab 5, Schedule 1, p9]

- (a) In the event the board were to reduce the proposed five (5) year capital expenditures in the 2015-2019 level, plus six percent (6%), please provide a revised Table 6.
- (b) Please provide a comparable table, actuals and forecast, to Table 6 New Actual/Forecast Capex for the 2015-2019 plan period.

1B-BOMA-46

[Exhibit 1B, Tab 5, Schedule 1, p14]

- (a) Please provide the details of market competitive pay increase used for the 2015-2019 period (forecast and actual) and 2020-2024.
- (b) What has been the actual amount (percentage) and cost of short-term debt for each year of its 2015-2019 period?

2A-BOMA-47

[Exhibit 2A, Tab 1, Schedule 1]

Please confirm that the forecast 2020 rate base is approximately forty percent (40%) higher than the 2018 approved rate base.

2A-BOMA-48

[Exhibit 2A, Tab 1, Schedule 1, p4]

- (a) Please provide actual year end and actual Closing PP&E for each of 2015, 2016, 2017, and 2018 (actual to date).
- (b) Please explain the especially large increase in forecast Closing PP&E for 2019 and 2020, of \$219M.
- (c) Please provide a Table, comparable to Table 2, showing both Assets in Service, and WIP, for each of 2015 to 2019.

2A-BOMA-49

[Exhibit 2A, Tab 2, Schedule 1, Gross Assets]

What accounts for the fact that general plant has increased by a much higher rate than distribution gross plant over the period 2015-2020?

2A-BOMA-50

[Exhibit 2A, Tab 4, Schedule 1, Capex, p3]

What is the system access capital expenditure for 2018 year to date? Is that likely to be the year end amount? On what basis are the 2018 actual numbers calculated for each item?

2A-BOMA-51

[Exhibit 2A, Tab 5, Schedule 1]

- (a) Please confirm that no changes in the application of capitalization policy will be made over the 2020-2024 period without OEB approval.
- (b) What was the MIFRS? What new IFRS issues are THESL investigating at this time?
- (c) How many condominium buildings and rental buildings are bulk metered? How many are submetered?
- (d) What are the current legal/regulatory requirements for sub-metering electricity supply to various building categories?

2B-BOMA-52

[Exhibit 2B, Section A1, p1]

Please provide details of the "*adjustments for typical changes and evolving circumstances*" and "*gradual improvements to reliability*".

2B-BOMA-53

[Exhibit 2B, Section A3, p8]

What are the other allocations noted in Footnote 2?

2B-BOMA-54

[Exhibit 2B, Section A4, p9, Figure 2]

Why does the system renewal budget escalate from 2020 to 2021 and again from 2021 to 2022?

Please explain.

2B-BOMA-55

[Exhibit 2B, Section A4, p10]

Please compare APUL and asset condition data and explain why an increase in APUL would only likely result in a corresponding determination of reliability (our emphasis).

2B-BOMA-56

[Exhibit 2B, Section A4, p15]

Please identify by area, the number of new buildings constructed (Figure 5).

2B-BOMA-57

[Exhibit 2B, Section A4, p16]

- (a) Please provide the number of micro-turbine installations in: (a) municipal; (b) commercial customers; in THESL's franchise.
- (b) How many (a) residential; (b) small C&I meter seals expired or are forecast to expire each year between 2018 and 2024, inclusive. Will all of the replacement meters (i) report failures; (ii) accelerate restoration of service, communicate data to THESL and third parties, if requested and approved? If some will not do these functions, why not?

2B-BOMA-58

[Exhibit 2B, Section A4, pp22-23]

What are the expected manpower-related dollar savings in each year of the plan from the implementation of the capex on remote monitoring, sensing, protection, and control? What are the savings from each of standardization, removal of leaking transformers (remediation and penalty costs), enhanced work coordination, procurement measures? Please discuss fully.

2B-BOMA-59

[Exhibit 2B, Section A4, p24]

What percentage of the total cost of each category of capital expenditure, including capitalized engineering project management, overheads are performed by third party services acquired through competitive procurement processes?

2B-BOMA-60

[Exhibit 2B, Section A4, p32]

Please provide a copy of the review and update of Reliability Centered Maintenance analyses (2017).

2B-BOMA-61

[Exhibit 2B, Section A4, p32]

Please provide a description of the CNAIM asset health approach, and show how it differs from THESL's current approach.

2B-BOMA-62

[Exhibit 2B, Section A4, p33, Table 7]

- (a) Table 7 shows an approximate \$84M (twenty percent (20%)) increase in total capex in 2020 over 2019. What is the justification for this very large increase?
- (b) Please provide an overall rank order of each of the individual capital projects for 2020, as well as a rank order of the projects within each of the four (4) categories for 2020.
- (c) Please provide the same rank ordering for each of 2021, 2022, 2023, and 2024.
- (d) When there are several projects within a program, provide a rank ordering of those projects within each of the twenty (20) programs.

2B-BOMA-63

[Exhibit 2B, Section A6]

- (a) Please explain how monitoring and control technology will prevent vault fires. Please provide a detailed explanation.
- (b) Please provide details on how much of the current network employs SCADA technology; how much more will be covered by the proposed program (Network Condition, Monitoring, and Control). Please provide the total number of primary feeders in the THESL system, and how many are equipped with SCADA. Please detail the consequences and advantages for customers of the use of SCADA.

2B-BOMA-64

[Exhibit 2B, Section B, Appendix C, p1]

Please provide details on THESL's inspection practices for each major asset type, including:

- wood poles
- pole top transformers
- other pole top equipment
- vault transformers and pad-mounted transformers
- conductors:
 - overhead
 - underground
- station:
 - transformers
 - breaks
 - switches

2B-BOMA-65

[Exhibit 2B, Section E2, p6]

- (a) Given the fact that THESL has a deferral account for system access expenditures, what is the practical impact, if any, of reducing the five (5) year system access capex by \$65M?
- (b) Will THESL commit to reducing other parts of its capex, in the event the system access budget increases beyond the proposed level, in the event mandatory requirements are greater than initially forecast?
- (c) Please provide the projects that were deferred from the initial budget in each of the system renewal programs, in order to achieve the \$325M reduction over five (5) years.

2B-BOMA-66

[Exhibit 2B, Section E2, p7]

Why did THESL increase the amount of station work on the basis that it had discovered extra capacity to complete such work? Is it overstaffed in that area?

2B-BOMA-67

[Exhibit 2B, Section E2, p7]

Please provide specifics of customer support for Network Unit Renewal work in the last sentence of p7 of 58.

2B-BOMA-68

[Exhibit 2B, Section E4, p3]

Why, despite having underspent its system access budget by sixteen percent (16%) over the 2015-2019 plan, has THESL increased its system access budget to average 100m/year in the 2020-2024 plan? How does the new plan budget take the 2015-2019 experience into account?

2B-BOMA-69

[Exhibit 2B, Section E4, p3]

For 2018 and 2019, THESL has forecast shortfalls in system renewal capex relative to budget of seventeen percent (17%) and twelve percent (12%), respectively. Why has THESL then increased its system renewal budget to at least \$100M per year over 2018 and 2019 forecast amounts?

2B-BOMA-70

[Exhibit 2B, Section E4, p5]

Given that THESL attributes the large overrun in general plant in 2018-2019 to two (2) major projects which are now complete, why has THESL proposed an increase in general plant of approximately \$50M/year over the plan term over the budgets for 2018 and 2019. Please discuss in detail.

2B-BOMA-71

[Exhibit 2B, Section E5, p4]

- (a) Please define a project for the purposes of Figure 1. What are the minimum floor space, type of building, height, etc. that constitute a project? How many projects make up the stated 363,859 residential units? Are single family homes and duplexes included projects? How many forecast discrete connections to new buildings are forecasted annually from 2020 to 2024? Does the 363,859 include THESL's sub-meter connections? To what extent?
- (b) Are updated connections to improved buildings (eg. addition of a second floor to a bungalow) included in the unit numbers? To what extent? Please provide 2018 numbers when available.

2B-BOMA-72

[Exhibit 2B, Section E5, p7]

Request to Connect appears to be declining over 2015-2017 when feeder requests are increasing, and Offer to Connect appears flat over the last five (5) years. What is the forecast load connection activity in the 2020-2024 period (extension of Figures 1 through 7, pp4-9)?

2B-BOMA-73

[Exhibit 2B, Section E5, p14]

What justifies the increase in annual load connection budget from about \$38M to \$44M (existing vs. proposed), a difference of \$30M over the new term?

2B-BOMA-74

[Exhibit 2B, Section E5, p14]

Why have customer contributions as a percentage of gross connection costs declined in 2020-2024, compared to the existing plan?

2B-BOMA-75

[Exhibit 2B, Section E5, p14]

Please provide a copy of THESL's Conditions of Service.

2B-BOMA-76

[Exhibit 2B, Section E5, p17]

Why does Table 9, p14 data exceed the 2020-2024 planned CCS?

2B-BOMA-77

[Exhibit 2B, Section E5, p21]

What are the forecast savings for the combination of low and high voltage design teams at the expanded CRM system?

2B-BOMA-78

[Exhibit 2B, Section E5, p23]

What are the criteria for allowances of an alternative bid? Please provide copies of sample OTC's to demonstrate same.

Please provide a list of each proposed request for a road authority or another agency, already filed or anticipated for each of 2020 and 2021. For each project, please estimate the share THESL will seek to recover from the RA or agency.

2B-BOMA-79

[Exhibit 2B, Section E5, pp6-7]

Alectra was able to negotiate approximately a fifty-three percent (53%) capital contribution from road authorities for proposed relocation work in 2020 (EB-2018-0016, Tr. Vol 1). Why cannot THESL negotiate similar arrangements?

2B-BOMA-80

[Exhibit 2B, Section E5, p6]

As the railway crossing costs included in the system access cost forecasts for 2020-2024, please account for this drastic increase.

2B-BOMA-81

[Exhibit 2B, Section E5, p8]

Does not the use of the deferral account for system access costs reduce the incentive of THESL to negotiate the best possible deal with the various agencies, including its parent company, and the provincial government? Please discuss an approach that would be a win-win for both shareholders and ratepayers.

2B-BOMA-82

[Exhibit 2B, Section E5, p9]

- (a) Please provide the "business case" for each of THESL's Metrolinx West LRT, Metrolinx Regional Express Rail, TTC's Scarborough Subway Extension, TTC East Access Program, John St. Revitalization, Wellington Street scope, York-Bay-Yonge Densification, and Harbour Street Widening, comparable to the explanation for THESL's proposed expenditure to relocate assets for the cross-town Eglinton LRT. In addition, please provide comparable information, if available, on each of the Upcoming Projects, on p16.
- (b) What are the proposed allocations of costs?
- (c) What are the expansion proposals for THESL's infrastructure which will be done at the same time as the above asset relocations?
- (d) What additional expansion costs does THESL plan for 2020 and 2021, and are these costs included in Table 4 at p7?

2B-BOMA-83

[Exhibit 2B, Section E5.4]

Please provide a Table which shows actual and forecast expenditures from 2015 to 2024 for each of the five (5) programs that make up the System Access capex. Please include totals for each line for the 2015-2019, and 2020-2024 periods.

2B-BOMA-84

[Exhibit 2B, Section E6 (General)]

Please provide a Table, as requested above, for each of the seven (7) programs included in the System Renewal Tranche of the 2020-2024 capital budget. For the Area Conversion Program, please show separate lines for Rear Lot Conversion and Box Construction Conversion.

2B-BOMA-85

[Exhibit 2B, Section E6.1]

Please provide a prioritized list of rear lot conversion projects that are included in the Rear Lot Conversion Program.

2B-BOMA-86

[Exhibit 2B, Section E6.1]

Please provide the number of customers served by rear lot equipment in Toronto. How many of these arrangements have been connected to date by year? What percentage have been converted to front lot underground, each year (a) beginning in 2015; (b) in years before 2015 when such work was done?

2B-BOMA-87

[Exhibit 2B, Section E6.1 (Priorities)]

Please provide a prioritization table for the 2020-2024 system renewal projects, and for each of 2020, 2021, 2022, 2023, and 2024, separately, of the system renewal programs listed at p1 (E6).

In doing so, please consider a rear lot conversion and box replacement as two "separate programs".

2B-BOMA-88

[Exhibit 2B, Section E6.1, p3]

- (a) Does THESL have an ongoing program to replace transformers of all types containing PCBs? If so, please describe the budgets and the plans to remove all PCB-transformers by 2024. Please provide budgets/actuals for the work from 2015-2019, and 2020-2024.
- (b) How many of THESL's retained transformers are currently leaking oil? Please differentiate by category, eg. pole top, pad-mounted, vault, are:
 - (i) currently leaking material amounts of oil;
 - (ii) currently leaking some oil;
 - (iii) are leaking oil that contain PCBs;
 - (iv) contain PCBs but are not leaking oil;
 - (v) what is THESL's plan to eliminate all transformers which contain PCBs prior to 2024?

2B-BOMA-89

[Exhibit 2B, Section E6.1, p4]

- (a) Please describe THESL's tree trimming program, inspection and removal, and its budgets/actuals for 2015-2019, and 2020-2024.

- (b) Has THESL investigated the new program HONI Transmission has recently adopted to modify its tree trimming cycle and approach?

2B-BOMA-90

[Exhibit 2B, Section E6.1, p6]

The outage differential for rear lot/front lot repair appears from Figure 2 to range from less than one (1) hour to one and one-half (1.5) hours, not the one (1) to three (3) hours stated under the graph. Why the discrepancy?

2B-BOMA-91

[Exhibit 2B, Section E6.1, p7]

Please provide a prioritized list (with budget) of the eight (8) rear lot areas, eg. Jamestown, Hartsdale, etc., that THESL plans to convert over the 2020-2024 period. Please explain how the various areas conversions were prioritized.

2B-BOMA-92

[Exhibit 2B, Section E6.1, p10, Table 6]

Please confirm that replacement of rear lot poles on an "area" basis will result in the fifty-five percent (55%) poles in good, or moderate deterioration (fair) condition being replaced along with poles in materially determined condition. What is the cost of doing this? If this is not the case, please explain, and provide the correct number.

2B-BOMA-93

[Exhibit 2B, Section E6.1, p13]

- (a) What percentage of rear lot infrastructure does not currently comply with Electrical Safety Utilities Safety Order 129? What percentage of the rear lot equipment use 4.16 kV design?
- (b) Given the increased cost of undergrounding rear lot conductors, transformers, and equipment, and the advances in tree trimming strategies, the difficulty of inspecting and retrofitting underground infrastructure, and ratepayers preference for lowest possible price increases, why does THESL propose to continue to increase overall system costs by moving from overhead (rear lot) to underground?
- (c) Has THESL considered asking ratepayers to pay for rear lot conversion costs, in whole or in part?

2B-BOMA-94

[Exhibit 2B, Section E6.1, p18]

What percentage have box construction poles and structures in poor or very poor condition? By how much will distribution losses been reduced by converting from 4.16 kV to 13.8 kV, or from 4.16 to 27 kV? What studies has THESL, or the industry, done to demonstrate the cost savings from using high voltage feeders? What is the timeframe for the removal of all 4.16 kV circuits, and the approximate cost? What voltage is required to connect a typical new condominium project?

2B-BOMA-95

[Exhibit 2B, Section E6.1]

Please describe what the change from box construction to single pole method consists of. What new assets are put in place and what old assets are being replaced?

2B-BOMA-96

[Exhibit 2B, Section E6.1, p27]

What is the increase in unit cost of rear lot forecast for the plan year, given that the total spending on the program is proposed to increase from \$65.1M in 2015-2019 to \$113.5M in 2020-2024, and \$46M, or about sixty-five percent (65%)?

2B-BOMA-97

[Exhibit 2B, Section E6.1, p27]

Please confirm that Table 12 sets out the priority assigned to the service projects. Please provide an explanation of how the order was established. If not the priority, please provide the priority list. Please also provide the priority of projects within each two (2) year period, eg. Sherbourne MS vs. Queensway MS.

Why would whole trees need to be cut down to make room for an overhead lien? Could a passageway not be created by trimming?

2B-BOMA-98

[Exhibit 2B, Section E6.2, p1]

- (a) Please confirm that outages on the underground system take thirty-five percent (35%) longer to restore than outages on the overhead system, applies whether the overhead system is rear lot, or front lot. If not, please provide the correct number.
- (b) Please provide the current condition – poor, fair, good, very good, of (i) direct buried XLPE cable over the 2020-2024 period; (ii) the estimated 1,900 underground transformers to be replaced in 2020-2024; (iii) the 230 underground switches to be replaced in 2020-2024.

2B-BOMA-99

[Exhibit 2B, Section E6.2, p3]

- (a) How many underground transformers contain PCB, and need to be replaced by 2024?
- (b) How have the "useful life" of assets listed in Table 4 been determined?

2B-BOMA-100

[Exhibit 2B, Section E6.2, p1]

Please confirm that the 280,000 and 140,000 numbers refer to customer hours (minutes?) of interruption. If not, please clarify.

2B-BOMA-101

[Exhibit 2B, Section E6.2, p2]

Please provide the total kms of underground cable and overhead cable on THESL's system, separate numbers for jacketed and un-jacketed, and of the underground portion and for each of underground and overhead cable, what amounts of the various types of cable are in use. Please indicate circuit/km of direct buried XLPE, direct buried other cable (and type) contained in PVC ducts, contained in concrete ducts (separate numbers for jacketed and un-jacketed, contained in some other way, and in each case, describe the amount of each type of cable used. Finally, please distinguish "km of cable" from "circuit/km of cable".

2B-BOMA-102

[Exhibit 2B, Section E6.2, p3]

Please confirm that the XLPE cable proposed to be replaced is all un-jacketed. If not, please provide amounts for each.

2B-BOMA-103

[Exhibit 2B, DSP (General)]

- (a) Within each of the revised programs, eg. "Underground System Renewal", the plan identifies a number of projects or priority areas for work. The plan also provides the forecast annual expenditures for each program over the plan term. BOMA requests that within each program, and for each year 2020, 2021, 2022, 2023, 2024, THESL (i) identify the project that will be undertaken; (ii) prioritize the projects. BOMA's objective

is to have a single, prioritized list for all system renewal projects, regardless of the "program" they fall into.

- (b) Please prioritize among the programs themselves, eg. underground, horseshoe, underground, downtown, etc. BOMA assumes that, in the event it was not allocated all the resources it asked for, THESL would not likely eliminate a program in its entirety but would defer or cancel some projects in many of the programs.
- (c) BOMA would also request that projects in all four (4) categories be prioritized in a single list. BOMA understands that the higher priority projects would be those that are required by law, including the Distribution System Code, and in respect of which THESL has no or very little discretion. After the mandatory projects, BOMA would like to see the priorities among the remaining projects in the various programs. Please note that BOMA would consider a response that all our projects are of equal priority, necessary, etc. to be unresponsive. Other major utilities, such as Alectra, have provided ranked project priority lists.

2B-BOMA-104

[Exhibit 2B, Section E6.2, p19]

Please provide a copy of the City of Toronto's Sewer Use By-law. Have there been any prosecutions under the by-law for oil containing PCB leaks?

2B-BOMA-105

[Exhibit 2B, Section E6.2, p22]

Please provide data on the 5,000 underground switches. How many are air-vented vs. sealed with SF6 insulation? How many are in vaults vs. pad-mounted?

2B-BOMA-106

[Exhibit 2B, Section E6.2, p27]

Please describe the improvements THESL made of its inspection forms and processes.

2B-BOMA-107

[Exhibit 2B, Section E6.2, p26]

Please discuss whether technology is available, other than conversion to sealed SF6 switches to protect air-vent insulated switches from deterioration.

2B-BOMA-108

[Exhibit 2B, Section E6.2, p28]

What progress has THESL made to move the estimating process downstream, after detailed design has commenced, with less reliance on necessarily inaccurate high level estimates? See, for example issues of HONI Distribution in its most recent case.

2B-BOMA-109

[Exhibit 2B, Section E6.2, p29]

Are all of the undisposed area projects focused exclusively on direct buried XLPE cable, or on voltage upgrades (eleven (11) feeders of sixty-nine (69) feeders). Is each of the sixty-nine (69) feeders on which work will be performed XLPE direct buried? Please explain.

2B-BOMA-110

[Exhibit 2B, Section E6.3, p2]

Have all the PILC levels and piece-out program been removed?

2B-BOMA-111

[Exhibit 2B, Section E6.3, p2]

Please elaborate on, and provide the basis for this sentence:

"To manage the pacing of investments in this segment, Toronto Hydro has begun to predict with increasing accuracy and precision the cable segment at the highest risk of failure".

2B-BOMA-112

[Exhibit 2B, Section E6.3, p3]

Please provide the total circuit/km of underground cable in the downtown area serving:

- (a) the financial and other commercial buildings;
- (b) the residential buildings including condominiums and apartment buildings;
- (c) the amount (and percentage) of (a) and (b) cable that is PILC, the amount that is "standard tree retardant or cross-linked polyethylene cable".

2B-BOMA-113

[Exhibit 2B, Section E6.3, p4]

- (a) How many km of PILC cable contain PCB containing oil?
- (b) Please confirm that only PILC cable in HIS condition are being removed in the program.

2B-BOMA-114

[Exhibit 2B, Section E6.3, p6]

Please define primary cable and secondary cable in the downtown core.

2B-BOMA-115

[Exhibit 2B, Section E6.3, p11]

How many oil leaks are currently occurring for the underground PILC/lead cable?

Approximately how many additional leaks start each year?