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INTERROGATORY 1:

Reference(s): Exhibit 1B, Tab 2, Schedule 7, Appendix B and Exhibit 2B

Please identify the differences, if any, between the capital spending plan presented in the customer engagement workbook and the capital plan ultimately filed as part of this application. Please show these differences by listing all projects, the forecast budget presented in the engagement workbook, the budget value presented in this application, and the variance.

RESPONSE:

For the purposes of the customer engagement workbook, and in advance of completing detailed planning for the purposes of the DSP contained in this Application, Toronto Hydro mapped a high-level preliminary list of potential DSP programs to high-level spending categories using language that was more accessible to customers and the public. Toronto Hydro then presented each of these categories as a percentage of the overall five-year capital expenditure plan to provide a proxy for customers to assess the types of investments that the utility planned to undertake. (For reference, please see page 31 of the "Workbook Appendices" in Exhibit 1B, Tab 2, Schedule 7, Appendix B.)

The following table includes the original percentages for each category in the workbook, as well as updated percentages that reflect the capital expenditure plan ultimately filed in Exhibit 2B. Please note that Toronto Hydro's DSP was being developed in parallel with the customer engagement workbook. The updated percentages below represent Toronto

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Hydro's best effort to map the final suite of DSP programs to the original workbook categories.

Workbook Investment Categories	Percentage of Total CapEx Budget in Workbook	Percentage of Total CapEx Budget in Filing	Variance (percentage points)
Replacing Aging and Obsolete Equipment	47.1%	54.1%	+7.0
Connecting Customers	11.2%	14.5%	+3.3
Updating IT Infrastructure	7.8%	8.9%	+1.1
Expanding Capacity for Long-term Growth	14.3%	7.8%	-6.5
Maintaining and Upgrading Customer Meters	1.9%	3.3%	+1.4
Building Maintenance	1.3%	3.2%	+1.9
Improving Reliability by Reconfiguring Circuits	8.0%	2.8%	-5.2
Modernizing the Grid	3.2%	2.5%	-0.7
Accommodating Renewable Generation	0.9%	1.1%	+0.2
Accommodating Construction Projects in the City	3.3%	0.9%	-2.5
Vehicles and Equipment for Crews	0.7%	0.8%	+0.1
Accommodating Electric Vehicles	0.1%	0.0%	-0.1

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INTERROGATORY 2:

Reference(s): Exhibit 1B, Tab 2, Schedule 5, Page 24

THESL states that it "maintains a comprehensive framework of Key Performance Indicators ("KPIs") that is integrated with the utility's performance pay program and is a part of a Balanced Corporate Scorecard." Please provide THESL's scorecards with targets and results for 2011, 2012, 2013, and 2014YTD.

RESPONSE:

Please find the requested information attached as Appendix A to this response.

Key Performance Indicator (KPI)	2011 Target	2011 Results	
Safety - My Goal is Zero	4.50	2.49	
Safety Leadership	95%	107%	
Attendance (# days)	7.75	7.09	
Operating Expenses ($M)	$259.9	$243.6	
Net Income ($M)	$73.0	$95.9	
Distribution Plant Capital Per Unit ($K)	$1.18	$0.99	
SAIDI	82	85.8	/C
SAIFI	1.70	1.63	/C
Worst Performing Feeders (WPF)	37	35	
Call Centre Service Index	83%	83%	

Key Performance Indicator (KPI)	2012 Target	2012 Results	
Safety - Total Recordable Injury Frequency (TRIF)	3.40	2.15	
Employee Engagement	8.0	10.7	/C
Net Income ($M)	$89.1	$113.8	
SAIDI	93.7	61.7	/C
SAIFI	1.76	1.40	
Worst Performing Feeders (WPF)	40	29	/C
THESL Regulated Capital ($M)	$240.0	$261.3	
Conservation Demand Management (CDM)	49.0	53.2	
Enhanced Customer Engagement (ECE)	110%	125%	
Call Centre Service Response	70%	78%	

Key Performance Indicator (KPI)	2013 Target	2013 Results	
Safety - Total Recordable Injury Frequency (TRIF)	2.98	2.26	
Employee Engagement	8.0	11.1	/C
Net Income ($M)	$106.6	$121.2	
THESL Regulated Capital ($M)	$335.1	$393.2	
Worst Performing Feeders (WPF)	38	33	
SAIDI	82.5	68.6	/C
SAIFI	1.61	1.44	
Conservation Demand Management (CDM)	45.0	54.5	
Enhanced Customer Engagement (ECE)	120%	129%	
Call Centre Service Response	76%	82%	

Key Performance Indicator (KPI)	2014 Target	2014 Results
Enhanced Customer Engagement (ECE)	214,000	N/A
First Call Resolution	78%	N/A
Safety - Total Recordable Injury Frequency (TRIF)	2.58	N/A
Attendance	5.75	N/A
SAIFI	1.53	N/A
SAIDI	72.5	N/A
Key Accounts - Worst Performing Feeders (KAWPF)	49	N/A
Productivity - Fleet Utilization	663	N/A
Productivity - Facilities - Occupied SqFt. Reduction	3,930	N/A
Productivity - Operating Expenses	$260.2	N/A

Key Performance Indicator (KPI)	2014 Target	2014 Results	
Net Income	$103.5	N/A	/C
THESL Regulated Capital	$395.0	N/A	/C

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INTERROGATORY 3:

Reference(s): Exhibit 1B, Tab 2, Schedule 3

In THESL's PCI formula, do the 2016-2019 years assume a stable customer/load forecast based on the rebasing projections for 2015? If so, has THESL considered incorporating a variable to account for the growth/decline of customers/load into its PCI formula over 2016-2019? If not, why not?

RESPONSE:

Please see Toronto Hydro's reply to interrogatory 1B-OEBStaff-5.

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INTERROGATORY 4:

Reference(s): Exhibit 1B, Tab 2, Schedule 5, Appendix B, page 5

The PSE Benchmarking report states that "Both samples show Toronto Hydro has been below its total cost benchmark values, and this persists through the projected years, albeit with a convergence towards benchmark costs."

a) What are the reasons for this convergence?

b) Does THESL view this convergence as a negative (i.e., undesirable) trend (in terms of reflecting a declining level of relative productivity)?

RESPONSE:

a) This convergence towards the total cost benchmark is due to the required higher capital spending forecast by Toronto Hydro.

b) Given that the major driver behind the convergence observed by PSE is Toronto Hydro's capital program, the utility views this convergence as a necessary consequence of its completed, ongoing and planned future capital work. Please see Exhibit 2B, Distribution System Plan for an in-depth discussion of the drivers behind Toronto Hydro's capital work program and the planning approach underlying the proposed investments. Moreover, the projected convergence in future years may be a function of the projections of other utilities' costs relying on *past* trends. These past trends may materially change in the future, as more utilities ramp up their capital spending to refurbish and replace aging infrastructure, accommodate renewable generation and integrate new technologies. Should this trend persist and/or increase

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among the utilities examined in PSE's study, Toronto Hydro believes that its position relative to the model-predicted benchmark could improve over the plan term.

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INTERROGATORY 5:

Reference(s): Exhibit 2A, Tab 4, Schedule 1

In THESL's Smart Meter Clearance Application (EB-2013-0287), in response to Board Staff Interrogatory 12, THESL estimated the value of its stranded meters as $13.04 million. In this application, the value is presented as $15.8 million. Please explain the variance between these two forecasts.

RESPONSE:

The differences in the forecasted stranded meters net book value between the response to Board Staff Interrogatory 12 (EB-2013-0287) and Exhibit 2A, Tab 4, Schedule 1 are a result of an increase in the identified quantity of stranded meters between the two applications. The response to Board Staff Interrogatory 12 (EB-2013-0287) provided a forecast value based on the best available information at that time. Exhibit 2A, Tab 4, Schedule 1 incorporates subsequent actual information, resulting in an identified increase in the quantity of stranded meters.

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INTERROGATORY 6:

Reference(s): Exhibit 2A, Tab 5, Schedule 1, page 4

With regard to the transfer price of the Streetlighting Assets, THESL states that "At that time an Agreement of Purchase and Sale (the "Sale Agreement") was executed between the parties which initially provided for a transfer price of $28.5 million, subject to a detailed analysis of the NBV of the transferred assets, which analysis would then underpin an adjustment to the transfer price, if necessary." Does THESL believe that the OEB decision allows for an "adjustment to the transfer price"?

RESPONSE:

Please refer to Toronto Hydro's response to interrogatory 2A-OEBStaff-30 part a.

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INTERROGATORY 7:

Reference(s): Exhibit 2A, Tab 5, Schedule 1, page 17

With regard to the value of the Streetlighting Assets, THESL states "However, it is still the case that the proxy value of $28.9 million provided at the time was the result of two simplifying assumptions that had to be made due to the lack of more precise information."

Did THESL at any time prior to this application indicate to the OEB that the $28.9 was intended only as a "proxy value" that would require subsequent adjustment? If not, why not?

RESPONSE:

In its Additional Evidence Regarding the Transfer of Streetlighting Assets, Toronto Hydro indicated to the OEB that,[1]

> should the Board approve the transaction as described herein, and subject to obtaining all necessary approvals, the Applicants intend to proceed with a transaction which is substantially similar to the transaction evidenced in the Initial Applications, except that the Asset Purchase Agreement will be updated, amended and restated to, among other matters, exclude all non-distribution assets, and the purchase price for the assets will be revised as described herein.

Please also refer to Toronto Hydro's response to interrogatory 2A-OEBStaff-30 part a.

[1] EB-2009-0180 et al., Application and Evidence (January 31, 2011), at pages 20-21.

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INTERROGATORY 8:

Reference(s): Exhibit 2A, Tab 5, page 4

As part of the Aug 3, 2011 Decision (EB-2009-0180) the OEB accepted a transfer value of $28.9 million, stating "THESL proposed to pay $29.418 million in return for the transfer of the SEL System Assets classified as distribution assets" and concluding that "the Board finds the proposed transfer price of $28.938 to be reasonable". In its EB-2011-0144 rate application (which was ultimately dismissed), THESL relied on the original OEB decision and "proposed a slightly lower transfer price for the assets of $28.46 million, reflecting the forecast evolution of the assets (principally additions and depreciation) over 2011" (Exhibit 2A, Tab 5, Page 4)

a) Please explain why THESL accepted the OEB's Decision on the valuation of the streetlighting assets as part of its EB-2011-0144 filing, but finds it necessary to present an alternative valuation as part of this proceeding.

b) Please explain why THESL did not complete "the detailed analysis of the NBV of the transferred assets" (Exhibit 2A, Tab 5, Page 5) prior to the original OEB valuation decision.

RESPONSE:

a) The detailed analysis that resulted in the updated value of the assets on February 2012 was completed after Toronto Hydro submitted its pre-filed evidence in EB-2011-0144.

b) As noted at page 18 of the pre-filed evidence (Exhibit 2A, Tab 5, Schedule 1),

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It was necessary for Toronto Hydro to perform the detailed analysis resulting in the revised valuation in order to properly implement the OEB's Valuation Decision, and provide an accurate basis for Toronto Hydro's and TH Energy's ongoing accounting and financial reporting obligations.

As noted above, Toronto Hydro performed the detailed analysis in order to properly implement the OEB's Decisions and provide an accurate basis for Toronto Hydro's and TH Energy's ongoing accounting and financial reporting obligations. It would have been premature for Toronto Hydro to conduct the detailed analysis while the Board's Decision was still outstanding, since Toronto Hydro could not anticipate the content of that Decision.

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INTERROGATORY 9:

Reference(s): Exhibit 2B

For all the capital programs being proposed for completion in 2015-2019 (Sections E5-E8), on a best efforts basis, please provide a table showing the amount that was spent on similar work that was undertaken in each year from 2011 through 2014 (forecast to year end). Please also show the corresponding 2015 through 2019 amounts in the same table.

RESPONSE:

Please refer to Exhibit 2A, Tab 6, Schedule 2, OEB Appendix 2-AA.

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INTERROGATORY 10:

Reference(s): Exhibit 2B

With the assumption that most, if not all, capital investments will improve reliability to some extent, please identify which specific projects directly contribute to reduce restoration times following outages. Would the answer generally be the same for restoration times following major outages caused by storms?

RESPONSE:

The following programs may contribute to reducing restoration times following an outage. Their relative effect on restoration times caused by major storms will vary depending on the nature of the storm (e.g., whether the storm results in flooding affecting the underground system, or wind damage affecting the overhead system, etc.).

- Box Construction Conversion
- Contingency Enhancement
- Customer Owned Station Protection
- Design Enhancement
- Distribution System Communication Infrastructure
- Downtown Contingency
- Feeder Automation
- Legacy Network Equipment Renewal (ATS & RPB)
- Load Demand

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- Metering
- Network Circuit Reconfiguration
- Network Unit Renewal
- Overhead Circuit Renewal
- Overhead Infrastructure Relocation
- Overhead Momentary Reduction
- PILC Piece-outs and Leakers
- Power Transformer Renewal
- Rear Lot Conversion
- SCADAMATE R1 Renewal
- Station Expansion
- Stations Control & Monitoring
- Stations DC Battery Renewal
- Underground Circuit Renewal
- Underground Legacy Infrastructure

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INTERROGATORY 11:

Reference(s): Exhibit 2B

Summer switching restrictions/operational constraints appear to be a program execution risk for a large number of programs (see for example Network Unit Renewal, Section E6.10.5.1, Legacy Network Equipment Renewal, Section E6.11.5.2, Network Circuit Reconfiguration, Section E6.12.5.2, etc).

a) Please list all programs for which summer switching restrictions apply.

b) Has THESL performed an analysis to ensure that even under normal expected operating conditions it can complete the planned programs slated for completion in 2015 and beyond without the programs competing with one another for offloading capacity (i.e., in developing the forecasts for the capital plan, have summer switching restrictions been considered to the entirety of the proposed capital plan as a whole?)

RESPONSE:

a) The following programs are impacted by summer switching restrictions:

- E6.2 Paper-Insulated Lead Covered (PILC) Piece-outs & Leakers
- E6.3 Underground Legacy Infrastructure
- E6.9 Network Vault Rebuild Program
- E6.10 Network Unit Renewal Program
- E6.11 Legacy Network Equipment Replacement (ATS & RPB)
- E6.12 Network Circuit Reconfiguration

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b) As part of the Investment Planning process as described in Section D3.1.1.3, technical due diligence is conducted in a cross-functional manner between asset planners and system operations to ensure that each program – in particular those programs that fall within similar geographical territories – can be executed under normal operating conditions. As part of the Project Scheduling & Execution process as described in Exhibit 2B, Section E2.3, individual projects are scheduled based upon discrete system requirements, including feeder availability and seasonal restrictions, such as summer switching restrictions. Multiple projects will be scheduled and paced accordingly where they will likely impact the same or similar feeders.

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INTERROGATORY 12:

Reference(s): Exhibit 2B, Section E6-6

a) Please explain the notable decrease in proposed spending on the Rear Lot program from ~$17-24 million in 2012 through 2015 to only ~$8-$13 million between 2016 through 2019. Given the many problems presented by THESL with regard to rear lot lines, and the justification and urgency for the program presented by THESL in its ICM evidence, why is THESL not proposing a more accelerated conversion (to match the 2012-2015 pace), to potentially eliminate all rear lot lines over a shorter timeframe?

b) What would be the total investment required to eliminate all rear lot lines over the 2015-2019 period?

RESPONSE:

a) Toronto Hydro has proposed a five-year investment program that balances significant capital renewal needs in multiple programs with other critical investments that are expected to enhance customer value. This capital plan also strikes a balance between aggregate capital needs and practical limitations, including execution constraints and customer expectations regarding bill impacts. The pacing of the Rear Lot Conversion program within the 2016-2019 period is a result of the need to balance and prioritize numerous investments program needs within an overall paced execution strategy.

The primary factors limiting Rear Lot Conversion spending within this context are (i) the need to balance resources between programs and (ii) city moratorium restrictions.

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Rear lot Conversion projects, despite their notable benefits, require a significant amount of resources. As a result, Toronto Hydro has put forward what it believes is the appropriate level of investment in this program in order to maintain a balanced DSP that delivers value for money. Furthermore, many areas not included in the 2015-2019 program are subject to city road moratoriums, which in any case would have prevented their completion during this period.

b) A high-level estimate of the investment required to eliminate all rear lot distribution within Toronto Hydro's distribution system over 2015-2019 would be approximately $286.5 million.

Rear Lot Areas	Cost ($M)
Remaining Rear Lot Zones	227.2
2015-2019 Planned Rear Lot Zones	59.3
Total	286.5

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INTERROGATORY 13:

Reference(s): Exhibit 2B, Section E5-4, Table 1, page 7

Why is bus A1-2 at Charles TS considered for load transfer if the loading is currently only at 86%?

RESPONSE:

There is a typo in evidence referenced. The loading at A1-2CS is actually 43 MVA out of 45 MVA which is 96%. The other data for the A1-2CS bus is consistent with the data for the A3-4CS bus in the row below.

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INTERROGATORY 14:

Reference(s): Exhibit 2B, Section E6-9, pages 26-27

Please explain why 2014 and 2015 spending on vault repairs is relatively low ($0.93M and $3.95M) compared to the 2013 and 2016-2019 spending (~$10M per year)? Please identify the details behind the "resource constraints" cited.

RESPONSE:

Please refer to the response to Interrogatory 2B-SEC-35.

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INTERROGATORY 15:

Reference(s): Exhibit 2B

a) What percentage of the capital spending proposed as part of this application is similar in nature to the projects proposed and/or approved in THESL's 2012-2014 ICM rate application?

b) Please subdivide all capital projects in this application into those that are directly similar to 2012-2014 ICM projects (including within materiality threshold projects), and those that are materially different from the work proposed in the ICM application. Please provide a table showing the project name, a brief description of the project, and the budget for 2015 through 2019.

c) For the work that is different from the ICM work, does THESL believe this work is important enough to displace ICM-like work, or is THESL simply unable to complete more nondiscretionary ICM-type work due to resource/system constraints?

RESPONSE:

a) Please refer to Exhibit 1B, Tab 2, Schedule 4, Table 1 on pages 3-4 for a list of DSP capital programs that are continuations of OEB-Approved ICM segments. Following the mapping between ICM segments and CIR programs in Table 1, approximately 86% of proposed spending from 2015-2019 is similar in nature to the OEB-Approved ICM segments provided in this table.

b) Using the program-segment comparison from part a), please refer to Exhibit 1B, Tab 2, Schedule 4, Table 1 on pages 3-4 for those 2015-2019 capital investment programs

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that are directly similar to 2012-2014 ICM Segments. Please refer to Exhibit 1B, Tab 2, Schedule 4, Table 2 on page 5 for those 2015-2019 capital investment programs that are incremental to the OEB-Approved ICM segments. Please refer to Exhibit 2B, Section 00, pages 26 to 38 for descriptions and forecasts associated with these capital investment programs.

c) The proposed capital programs detailed in Exhibit 1B, Tab 2, Schedule 4, Table 2 on page 5 are incremental to the OEB-Approved ICM segments, and therefore do not displace the capital investment programs that are continuations of OEB-Approved ICM segments. Furthermore, Toronto Hydro believes that the current mix of capital programs that are incremental and programs that are continuations of OEB-Approved ICM segments achieves the right balance from a cost efficiency perspective.

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INTERROGATORY 16:

Reference(s): Exhibit 2B, Section E6-4

a) Please discuss the relative merits of using concrete vs. wooden poles, specifically discussing differences in: i) the cost of the pole ii) the costs of installation of the pole iii) strength (in terms of resistance to failure during storms, resistance to impact from traffic accidents, etc) iv) rates of deterioration v) expected lifespan vi) historic actual lifespan (based on THESL's records/observations)

b) Does THESL have a preference (or how does THESL determine) as to which type is used during its replacement programs?

c) Has THESL conducted any studies or analysis as to which pole type is a more efficient or effective investment?

d) Does THESL to any extent consider the aesthetic value of each pole type when planning replacement?

RESPONSE:

a) The relative merits of concrete vs. wooden poles are as follows:

- The material cost of concrete poles is approximately 1.2 to 2 times greater than installing wood poles.
- The cost of installing concrete poles can range up to 1.4 times that of installing wood poles depending on the particular installation.
- The breaking strength of concrete poles is 1.25 times greater than wood poles. Wood pole degradation factors include feathering, internal rot, decay at ground line, shell rot, and infestation from insects and naturally occurring fungi.

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Concrete poles degrade by moisture ingress through cracks and voids and corrosion of the internal metal rebar. The rate of deterioration depends on various factors associated with the actual operating environment of the poles such as the exposure to road salt, moisture, biological infestations, or other types of contamination.

- The expected lifespan is 45 years for wood poles and 60 years for concrete poles.
- The historical actual lifespan of wood poles varies significantly depending on operating environmental effects described previously above and economic reasons for proactive replacement due to high risk of failure costs.

b) Toronto Hydro's standard design practice for pole replacements, as part of OH Circuit Renewal, is to use wood poles unless existing area by-laws require it to deviate from this practice. During spot replacements or when replacing a short stretch of wood or concrete poles, replacement poles are to be consistent with existing streetscape in a like-for-like manner.

Wood poles are preferred as a standard design practice because they are typically less costly, easier to install and remove, allow for the use of live-line procedures, are versatile in that they allow for various types of framing configurations, and are less conductive.

c) No.

d) Toronto Hydro considers aesthetic value during pole replacement when area by-laws require such an assessment or in the situations described in part b) above.

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INTERROGATORY 17:

Reference(s): Exhibit 2B, Section E6.6, Table 5, Page 19

Please confirm whether the values for outages for "All feeders" in Table 5 is inclusive of Rear Lot, or is meant to show outages on all "other" feeders, specifically excluding "Rear Lot".

RESPONSE:

The values for outages for "All feeders" in Table 5 is meant to show outages on all "other" feeders, specifically excluding feeders that supply the "Rear Lot" customers.

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INTERROGATORY 18:

Reference(s): Exhibit 2B, E6.1 page 6 and
Exhibit 2B, E6.20 page 12

Please reconcile the definition of "catastrophic failure" on page 12 of Section E6.20 and that provided in the footnote on page 6 of Section E6.1. Specifically, does the failure have to be "large scale, affecting a greater number of customers" (as in E6.20) for it to be considered catastrophic, or does it simply need to be a failure other than failure-by-design in which "damage to other equipment and/or injury to a person occurs or could occur" (E6.1) regardless of the scale and number of affected customers.

RESPONSE:

The definition of a "catastrophic failure" in both instances specified in the question refers to a failure mode other than a failure-by-design in which the failure may result in associated collateral damage to other equipment, safety, and environmental risks. A failure does not need to result in a large scale outage, affecting a greater number of customers to be considered catastrophic.

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INTERROGATORY 19:

Reference(s): Exhibit 2B

Do any of the proposed capital programs include any CDM initiatives (or close variations of the CDM initiates) that were previously included in THESL's CDM Application in EB-2011-0011?

RESPONSE:

Yes, the Local Demand Response program includes variations of the Multi-Unit Residential Building Demand Response (MURB DR) program and Commercial Energy Management & Load Control (CEMLC) program which were both included in Toronto Hydro's CDM Application EB-2011-0011. Both concepts are currently being piloted in Toronto Hydro's service region.

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INTERROGATORY 20:

Reference(s): Exhibit 2B, Section E7.11, page 4

With regard to the Energy Storage program, THESL states that "The objective of the program is to enable Toronto Hydro to address specific issues and limitations within the distribution system with a prudent alternative to existing solutions and methods." Please list examples of the "existing solutions and methods" being referenced, and further explain by way of examples why an alternative to these methods needs to be employed.

RESPONSE:

Please refer to Exhibit 2B, Section E7.11.6.1 for examples of existing solutions and methods, and Section E7.11.3 for an explanation of why an alternative to these methods needs to be employed.

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INTERROGATORY 21:

Reference(s): Exhibit 2B, Section E7.10, pages 1-2

With regard to the Local Demand Response program, THESL states that "Using strategic load balancing, the capital investment required to address bus relief that would have otherwise been required in 2020 can be delayed to approximately 2025-2026. Total costs for the Local Demand Response program are estimated to be $4.1 million over the period of 2015 to 2019."

a) In the absence of this project, what is the estimated cost of the bus relief investment required in 2020?

b) With the benefit of this project, what is the cost of the delayed investment in 2025-2026?

c) Please explain whether and/or how THESL believes that the cost of this project is justified by a 5-6 year delay to an investment that will nonetheless continue to be required.

RESPONSE:

a) The estimated cost to provide load relief at Cecil TS is $29.5 million.

b) From a Total Resource Cost ("TRC") perspective, the total benefit of the Local DR alternative is $15.8 million, while the total cost of the delayed investment is $8.3 million. The TRC test measures the net costs of a demand-side management program as a resource option based on the total costs of the program, including both the

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participants' and the utility's costs. This test is often referred to as the "total societal cost test" as it evaluates net benefits from the perspective of all stakeholders.

c) Toronto Hydro conducted a financial evaluation of both alternatives – the projected station expansion in 2020 and the implementation of a local DR program that would defer the expansion work five to six years. The evaluation assessed the impact of all affected stakeholders, including participating ratepayers and non-participating ratepayers, the Province of Ontario and Toronto Hydro. With the exception of the utility – which must seek financial compensation through a lost revenue mechanism – all stakeholders stand to benefit from the demand response alternative. The financial model presents this strategy as the more cost-effective option, as it affords Toronto Hydro greater flexibility in assigning limited system upgrade resources across its service territory. In addition to the investment value of the deferral, the DR alternative is also expected to produce avoided costs with respect to energy and capacity.

Though this station will ultimately require the station expansion investment in the medium- to longer-term, the financial analysis presents the delayed investment as the more cost-effective option, illustrated by the fact that the net present value of benefits associated with the Local DR alternative is higher than the result of the more immediate investment.

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INTERROGATORY 22:

Reference(s): Exhibit 2B Section E5.3, Page 3; Exhibit 9, Tab 1, Schedule 1

Concerning the Externally Initiated Plant project in Section E5.3, THESL states that:

> "Although the utility forecasts that this program will cost approximately $119 million between 2015 and 2019, it has included only one-sixth of this amount (approximately $20 million) in its revenue requirement, or approximately $4.0 million of net Toronto Hydro costs per year. This sub-forecast amount represents a base level of spending that will be required over this term. Toronto Hydro proposes to seek rates funding only for this sub-forecast base amount, with a variance account to record differences from this amount."

In Exhibit 9, Tab 1, Schedule 1 THESL goes on to say that:

> "To reconcile the variable, non-discretionary nature of the work with its resulting bill impact, Toronto Hydro has intentionally included a below-forecast level of Relocation Spending in the utility's Distribution System Plan ("DSP") for the 2015-2019 period"

a) Given that the $4.0 million annually is less than any annual actual amount of historic spending in this area since 2010, and given that THESL is actually forecasting a notable increase in spending in this area over 2015-2019, please explain why THESL nonetheless proposes including a "below forecast level" of spending in rates. Does THESL anticipate the possibility that its forecast variances could be overstated by as much as 5/6ths in each year?

Panel(s): a) Distribution Capital and System Maintenance; b) and c) Planning and Strategy

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b) Is THESL concerned that the proposed approach could result in a likely material underrecovery, requiring an additional collection from customers in 2019 and beyond? Why should ratepayers in 2019 and onwards be responsible for costs deliberately under-recovered from 2015- 2019 ratepayer groups?

c) Would THESL consider including the full forecast amount (or some materially higher percentage of it – e.g., 90%) in its revenue requirement, subject to variance account treatment at the end of 2019? Why or why not?

RESPONSE:

a) The work contained in the Externally Initiated Plant Relocation Program (Exhibit 2B Section E5.3) is entirely driven by capital projects initiated by other agencies. As their capital programs change over time, the impact on Toronto Hydro is often uncertain. For example, $73M out of $119M predicted for 2015-2019 comprises large projects such as GO Transit Electrification between Union and Pearson, Eglinton Light Rail Transit ("LRT") project and other Metrolinx Transit projects such as Finch West and Sheppard LRT, for which the scopes and timing are not entirely confirmed and are subject to change.

Historically, annual spending in respect of externally-initiated plant relocation work has ranged between $1M and $19M. Toronto Hydro has estimated that expenditures of $4M annually would capture the majority of the more consistently incurred small and medium size relocation projects that the utility reasonably expects over the forecast period. The proposed variance account will be used to record the cost of the additional projects and protect ratepayers from the potential that any portion of the

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full forecast of third party work does not materialize due to the unpredictable nature, cost and timing of externally-initiated plant relocations.

b) Toronto Hydro believes its proposed approach best balances the need for funding for these uncertain projects with the recognition of the potential rate impacts for the 2015-19 period. Toronto Hydro's is not deliberately under-recovering any amounts. Please see response to part (a).

c) Please see response to part (b).

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INTERROGATORY 23:

Reference(s): Exhibit 2B, Section C, page 28

Please explain why the number of outages caused by defective equipment, as opposed to the defective equipment sub cause code of SAIDI and SAIFI, is being proposed as a tracking measure. That is, why not track the SAIDI and SAIFI caused by defective equipment rather than the absolute number of outages?

RESPONSE:

The Number of Outages caused by Defective Equipment as proposed by Toronto Hydro is advanced as a relatively simple measure of the overall system renewal progress. While measuring SAIDI and SAIFI caused by defective equipment is feasible and informative, averaging out the results by total customer base (as required to calculate system average measures) introduces significant complexities that cannot be easily accounted for to provide an overall plan-level measure. For instance:

- a cable failure on the 4kV system compared to the 27.6kV system would result in significantly different SAIFI values; and
- SAIDI can be skewed by multiple factors such as time of day of failure, multiple failures, or difficulty finding replacements for legacy equipment.

Accordingly, Toronto Hydro submits that tracking the total instances of defective equipment-caused outages as contemplated by the measure in question, along with system-wide reliability measures such as SAIDI and SAIFI, achieves an appropriate balance between monitoring macro-level and issue-specific performance trends.

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INTERROGATORY 24:

Reference(s): Exhibit 2B, Section E5.2, Page 9

THESL states that "...the Eglinton Light Rail Transit (ELRT) line requires several connection points to the Toronto Hydro system. Approximately 30 new LRT stations are proposed for this line, with a total demand of approximately 90 MVA. Connecting this many stations with such a large load will require significant expansion work over the 2015-2019 time frame and is the primary basis for the substantial net spend in 2017 and 2018."

Please identify the total expected costs of the ELRT expansion work.

RESPONSE:

The total estimated gross and net customer connection costs for the ELRT expansion work are summarized in the table below:

Year	2015	2016	2017	2018	2019
Gross Costs ($M)	2.17	6.50	15.16	13.00	6.50
Customer Contributions ($M)	(0.00)	(0.00)	(0.58)	(2.34)	(2.92)
Net Costs ($M)	2.17	6.50	14.58	10.66	3.58

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INTERROGATORY 25:

Reference(s): Exhibit 2B, Section E5.2, page 12, Table 4

Please explain why THESL uses two different basic connection fees for each of the Unmetered and Streetlighting classes. Under what conditions or circumstances would THESL apply one rate rather than the other?

RESPONSE:

For the Unmetered class, the different connection fees are charged depending on where the customer's service mast is located. A charge of $446.00 is applied if the customer's service mast is located on the same supply pole as the source connection. If the service mast is located elsewhere, a charge of $1011.00 is applied to account for the additional material and effort required to provide the connection.

For the Streetlighting class, the difference in the connection fees is attributed to whether the connection is made to Toronto Hydro's overhead or underground distribution system. A connection to the overhead secondary bus attracts a charge of $533.36, while a connection to the underground secondary bus attracts a charge of $573.97. The variance between these charges reflects the difference in costs between each type of connection.

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INTERROGATORY 26:

Reference(s): Exhibit 2B, Section E7.3, page 1

With regard to Feeder Automation THESL states that "This program focuses on the automation of select feeders in two areas of Toronto Hydro's system: the 27.6 kV open looped system in the 'Horseshoe' area and the 13.8 kV underground residential distribution systems in the Downtown area."

a) What approximate percentage of THESL's distribution grid is comprised of these two systems?

b) Are there any other notable areas within the distribution grid that THESL believes would benefit from this technology, whether now or in the future?

RESPONSE:

a) The chart below lists the percentages of the two distribution systems. It should be noted that although the 27.6kV distribution system comprises of 55% of Toronto Hydro's total distribution system it also supplies municipal stations that further supply customers on 4.16kV and 13.8kV. As a result, the restoration of a 27.6kV feeder can further affect the restoration of customers on affected municipal stations.

System Type	Percentage
27.6kV Open Looped System (Horseshoe Area)	55%
13.8kV Underground Residential Distribution (Downtown Area)	3%
Remaining THESL Distribution System	42%

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b) Yes, there are other areas in the distribution grid that would benefit from this technology, such as the 13.8kV open looped system in the 'Horseshoe' area and 13.8kV open looped system in the downtown area.

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INTERROGATORY 27:

Reference(s): Exhibit 2B, Section E7.8, page 6

Concerning customer owned substations, THESL states that "There are several instances in which the current configuration is non-compliant with Toronto Hydro standards, either because: (1) Toronto Hydro-owned protection devices are absent altogether or need to be replaced; or (2) customer-owned protection devices do not meet required standards."

a) To what extent would enforcement of compliance with standards under point (2) mitigate the concern or need for the installation of protection devices?

b) Please explain whether it is THESL's intention to enforce compliance from customers with its customer-owned protection device standards, either as part of this project or through a separate initiative. If so, please explain the steps it will take to enforce compliance.

RESPONSE:

a) The customer-owned protection devices associated with these substations do not alone offer sufficient protection. The installation of the utility-owned protection devices upstream from the customer-owned protective device is necessary to ensure reliability of supply to other customers and to limit the scope of any potential outages.

b) The proposed program will augment Toronto Hydro's existing Customer Advice Form ("CAF") process. If any electrical or civil deficiencies are found on equipment on the customer's property, a CAF will be issued to the customer indicating what

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deficiencies the customer is responsible to maintain, repair or replace. A reasonable period of time will be given to the customer to address these identified deficiencies.

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INTERROGATORY 28:

Reference(s): Exhibit 2B, Section E6.3, page 4, Table C

Concerning Underground Legacy Infrastructure, please provide an approximate breakdown of the proposed spending for this program by each of the six asset types described for replacement on pages 1-2.

RESPONSE:

The table below shows a high level breakdown of the cost in the Underground Legacy Infrastructure program by asset type:

	Forecasted Costs by Sub-program ($M)				
	2015	2016	2017	2018	2019
Sachsenwerk	0.40	1.11	1.10	0.96	-
Thorncliffe	0.69	0.92	0.91	0.91	0.91
Transclosures	0.86	1.38	1.37	1.37	1.36
Cable Chamber Covers	0.11	1.56	1.54	1.54	1.54
Powerlite	-	1.27	1.26	1.25	1.25
Step Transformers	-	0.46	0.46	0.46	0.45
Total	**2.06**	**6.69**	**6.64**	**6.48**	**5.52**

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INTERROGATORY 29:

Reference(s): Exhibit 2B, Section E6.3, page 16

Regarding Cable Chamber lids, THESL states that it "plans to replace a limited number in the first year because the new cable chamber lid must be tested for proper functionality in both the winter and summer months to ensure they operate in the multitude of conditions that they will be exposed to. If the new lid design passes the necessary testing, Toronto Hydro plans to replace a total of 1,475 cable chambers in the remaining four years of the program."

a) Please confirm that the cost of replacement of the 1,475 cable chambers is included in the proposed budgets for this program.

b) In the event that the necessary testing is not positive and THESL will not proceed with the 1,475 cable chamber replacements, how will THESL spend the allocated funding? Are there alternative approaches that would be considered to address the concerns with the existing cable chambers?

RESPONSE:

a) Yes, the cost of replacing 1,475 cable chamber lids is included in the proposed budget for this program.

b) If the necessary testing is not positive, Toronto Hydro will reallocate the funding to continue to investigate additional lid options or other means to eliminate the potential public safety hazard posed by the current lid design. There are multiple lid designs which may solve the problem with the existing lid. Toronto Hydro has short-listed a

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preferred design (based on preliminary evaluation of the ease of installation and impact to the existing cable chamber work space), but if more thorough tests are not conclusively positive, then several additional lid designs will also be tested.

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INTERROGATORY 30:

Reference(s): Exhibit 3, Tab 2, Schedule 2

Regarding Specific Service Charge Revenue:

a) Please explain why the revenue forecast for the "Connection-Reconnection Charge" remains unchanged at $440K for 2015 over 2014, despite the specific service charge for disconnections/reconnections increasing from $65 to $120 as noted in Exhibit 8, Tab 2.

b) Please explain why $0 revenue has been recorded for Duplicate Invoices, Income Tax Letters, and Special Meter Reads. Is this a materiality/rounding issue?

c) Please explain why $0 revenue is expected from Temporary Service Construction and Easement Letters in 2014 and 2015.

d) For additional clarity, please prepare a table showing all revenue received and forecast from the charges listed in Exhibit 8, Tab 2, Schedule 1, Table 1. Please show 2012-2014 actuals, and 2015 forecast revenue based on the new proposed service charges.

RESPONSE:

a) The 2015 revenue forecast for the "Connection-Reconnection Charge" was incorrectly stated. The correct amount is $859,312. As a result, the variance between 2014 and 2015 shows an increase to reflect the higher proposed rate, at slightly lower forecast volumes.

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b) A total of $0 revenue has been recorded for Income Tax Letters and Special Meter Reads primarily due to materiality. Furthermore, due to electronic reading and smart meter technology, the Special Meter Reads service charge is now very rarely used.

The revenue from the Duplicate Invoices service charge was incorrectly included together with the Retailer Service Transaction Request revenue in OEB Appendix 2H (Exhibit 2, Tab 2, Schedule 2). Please refer to the response to (d) below for the corrected amounts.

c) The Temporary Service Construction revenue was incorrectly included in the Miscellaneous Revenue category in OEB Appendix 2H (Exhibit 2, Tab 2, Schedule 2), but the correct amounts had been correctly shown in Table 2 of Exhibit 3, Tab 2, Schedule 1. The expected revenues from Easement Letters are considered immaterial.

d) Please see the table below:

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Specific Service Charge	Current Toronto Hydro Charge Amount	Proposed Toronto Hydro Charge Amount	2012 Actual	2013 Actual	2014 Bridge	2015 Test	2015 Incremental Revenue (8-OEB-83)
Duplicate invoices for previous billing	$15	$25	$ 7,680	$ 4,967	$ 5,730	$ 2,860	-$ 2,870
Request for other billing or system information	$0	$25	$ -	$ -	$ -	$ 31,000	$ 31,000
Easement letter	$15	$25	$ 18,800	$ 21,400	$ 16,800	$ 23,101	$ 6,301
Income tax letter	$15	$25	$ -	$ -	$ -	$ -	$ -
Account history	$0	$25	$ -	$ -	$ -	$ 6,000	$ 6,000
Returned cheque charge (plus bank charges)	$15	$25	$ 81,853	$ 68,785	$ 75,000	$ 113,925	$ 38,925
Account set up charge/change of occupancy charge	$30	$35	$ 2,816,087	$ 2,740,590	$ 2,550,000	$ 3,811,920	$ 1,261,920
Special meter reads	$30	$55	$ -	$ -	$ -	$ -	$ -
Collection of account charge - no disconnection	$30	$55	$ 3,026,321	$ 3,075,543	$ 3,299,978	$ 4,969,096	$ 1,669,118
Disconnect/Reconnect at meter -during regular hours	$65	$120	$ 260,555	$ 306,540	$ 280,247	$ 498,048	$ 217,801
Install/Remove load control device - during regular hours	$65	$120	$ 14,170	$ 585	$ 15,080	$ 18,912	$ 3,832
Disconnect/Reconnect at meter -after regular hours	$185	$400	$ 41,810	$ 160,105	$ 139,120	$ 319,360	$ 180,240
Install/Remove load control device - after regular hours	$185	$400	$ 3,330	$ 370	$ 6,660	$ 9,920	$ 3,260
Disconnect/Reconnect at pole - during regular hours	$185	$300	$ 9,250	$ 5,365	$ 1,233	$ 11,152	$ 9,919
Disconnect/Reconnect at pole - after regular hours	$415	$820	$ 7,055	$ 3,735	$ 1,660	$ 1,920	$ 260
Meter dispute charge plus Measurement Canada fees	$30	$55	$ -	$ -	$ -	$ -	$ -
Service call - customer owned equipment or customer missed appointment	Actual Cost/ $0	$55	$ -	$ -	$ -	$ 2,000	$ 2,000
Temporary service install & remove – overhead - no transformer	Actual Cost	$2,040	Note 1	Note 1	Note 1	$ 1,011,840	Note 1
Specific Charge for Access to Power Poles (Wireline	$22.35	$92.53	$ 2,188,788	$ 2,034,382	$ 2,174,650	$ 8,812,835	$ 6,638,185

Note 1: In 2012-2014, Toronto Hydro provided this service on an actual cost basis. As such, the projected 2015 revenue is not considered incremental to total 2014 service charge revenues.

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INTERROGATORY 31:

Reference(s): Exhibit 4A, Tab 1, Schedule 1

THESL notes that it "presents its Historical, Bridge and Test Year OM&A expenditures as a sum of 19 discrete programs", but goes on to say that "OM&A plans are generally presented on a operating department or 'Responsibility Centre' (RC) basis".

a) Please clarify whether THESL tracks and operates its OM&A on a program or department level? For example, does THESL have an actual "Finance Program" or a "Legal Services Program", or is this presentation a reflection of THESL's interpretation of the Filing Requirements?

b) Please explain the differences, if any, between THESL "programs" as presented in this application and the corresponding departments. For example, are there any identifiable differences between the functions and costs of the "Finance Program" and the functions and costs of the "Finance Department" presented in prior rate applications?

c) For all OM&A "programs" identified in Table 1, please identify the relevant department that undertakes each program.

d) Please provide the OM&A budgets mapped by operating department (Responsibility Centre), as referenced above.

RESPONSE:

a) The program-based presentation of OM&A budgets reflects Toronto Hydro's interpretation of the OEB guidance provided in Section 2.7 of the Chapter 2 of the *Filing Requirements for Electricity Distributors* (July 17, 2013) that mandates

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applicants to present their OM&A variance analysis on the basis of outcome-based programs. For internal purposes, Toronto Hydro tracks its OM&A expenditures at a departmental level.

b) As explained and produced in response to part (c) below, in a number of instances Toronto Hydro's OM&A programs as presented in this application are overseen by several different departments. For example, Preventative and Predictive Maintenance program encompasses the work performed by the Engineering and Construction and Electrical Operations and Procurement divisions. In other cases (e.g., Customer Care), the program-based presentation corresponds to a single departmental budget. For a further discussion of program-based presentation of OM&A Costs, please see Toronto Hydro's responses to interrogatory 4A-CCC-30 and interrogatory 4A-OEBStaff-63.

c) Please see Appendix A to this Schedule.

d) Please see response to (c) above.

Appendix A: Historical, Bridge and Test Year OM&A Expenditures by Program and Department

In millions of dollars; Rounding variances may exist.

($M) Prorgram	Department	2011 Actual	2012 Actual	2013 Actual	2014 Bridge	2015 Test
Preventative & Predictive Maintenance						
	Engineering & Construction	2.7	3.8	3.5	3.7	5.1
	Electric Operations & Procurement	11.0	12.1	9.3	12.4	14.9
Sub-total Preventative & Predictive Maintenance		13.7	16.0	12.8	16.1	20.1
Corrective Maintenance						
	Engineering & Construction	1.3	1.9	1.7	2.1	2.6
	Electric Operations & Procurement	24.5	19.6	15.3	17.0	19.6
Sub-total Corrective Maintenance		25.8	21.5	17.0	19.0	22.2
Emergency Response	Electric Operations & Procurement	13.3	13.9	26.3	16.2	15.3
Disaster Preparedness Management	Electric Operations & Procurement	0.9	0.0	-	-	2.4
Control Centre	Electric Operations & Procurement	8.4	8.3	8.9	8.2	8.4
Customer-Driven Work						
	Engineering & Construction	1.9	1.3	2.2	2.3	2.0
	Electric Operations & Procurement	4.1	4.6	4.9	5.9	8.1
Sub-total Customer-Driven Work		6.0	5.9	7.0	8.2	10.1
Planning						
	Engineering & Construction	9.0	9.0	11.5	10.2	12.6
	Electric Operations & Procurement	-	-	0.0	0.1	0.3
Sub-total Planning		9.0	9.0	11.5	10.3	12.9
Work Program Execution Management and Support	Engineering & Construction	5.0	5.5	5.6	5.8	6.1
Work Program Execution						
	Engineering & Construction	10.9	9.1	9.7	10.9	11.9
	Electric Operations & Procurement	4.0	4.7	3.4	3.3	3.2
Sub-total Work Program Execution		14.9	13.8	13.0	14.3	15.2
Fleet and Equipment Services	Electric Operations & Procurement	8.7	8.5	8.7	8.4	8.9
Facilities Management	Electric Operations & Procurement	24.6	23.5	24.2	27.2	27.5
Supply Chain Services	Electric Operations & Procurement	7.1	6.6	9.0	10.3	9.9
Customer Care	Customer Care	41.9	37.5	39.7	42.2	46.1
Human Resources and Safety	Human Resources and Safety	13.7	13.2	15.3	15.3	16.1
Finance	Finance	16.1	14.7	15.7	17.0	17.9
Information Technology	Information Technology & Risk Management	30.3	28.5	31.0	33.4	34.9
Rates and Regulatory Affairs	Regulatory Affairs and General Counsel	7.2	7.8	8.4	6.4	8.4
Legal Services	Regulatory Affairs and General Counsel	5.5	4.3	4.5	5.3	5.5
Charitable Donations (LEAP)	Customer Care	0.7	0.7	0.7	0.7	0.8
Common Costs and Adjustments	Corporate-wide	5.7	(6.0)	0.5	2.3	1.0
Allocations and Recoveries	Corporate-wide	(19.9)	(17.4)	(13.3)	(19.9)	(20.2)
Restructuring Costs	Corporate-wide	-	27.7	-	-	-
Total OM&A		**238.6**	**243.5**	**246.4**	**246.6**	**269.5**

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INTERROGATORY 32:

Reference(s): Exhibit 4A, Tab 1, Schedule 2

Please reproduce Appendix 2K by breaking out the "Non-management" category into "Union" and "Non-Union" sub-categories separately. In addition, please provide average per-employee values for all compensation categories (e.g. "Average Total Salary and Wages" per Management/Union/Non-Union, etc).

RESPONSE:

Please refer to Appendix A to this response.

	2011 Actuals	2012 Actuals	2013 Actuals	2014 BRIDGE	2015 TEST
Number of Employees (FTEs including Part-Time)[1]					
Management (including executive)	61.8	53.0	55.2	55	55
Non-Management (Non-Union)	462.4	442.9	458.5	509	534
Non-Management (Union)	1,212.8	1,104.9	1,013.7	973	975
Total	1,737.0	1,600.8	1,527.4	1,537	1,564
Total Salary and Wages (including overtime and incentive pay)					
Management (including executive)	$ 11,503,925	$ 10,484,857	$ 10,916,952	$ 11,357,809	$ 11,676,362
Non-Management (Non-Union)	$ 48,004,982	$ 47,222,946	$ 48,661,644	$ 54,545,454	$ 58,152,615
Non-Management (Union)	$ 117,596,782	$ 102,500,089	$ 99,308,906	$ 97,986,475	$ 99,602,175
Total	$ 177,105,689	$ 160,207,891	$ 158,887,502	$ 163,889,738	$ 169,431,152
Average Total Salary and Wages (including overtime and incentive pay)					
Management (including executive)	$ 186,024	$ 197,889	$ 197,735	$ 208,400	$ 212,297
Non-Management (Non-Union)	$ 103,815	$ 106,614	$ 106,129	$ 107,099	$ 109,002
Non-Management (Union)	$ 96,965	$ 92,769	$ 97,969	$ 100,726	$ 102,156
Total	$ 101,959	$ 100,079	$ 104,025	$ 106,659	$ 108,367
Total Benefits (Current + Accrued)					
Management (including executive)	$ 3,700,705	$ 3,207,397	$ 3,497,371	$ 3,622,390	$ 3,586,525
Non-Management (Non-Union)	$ 15,372,984	$ 15,506,703	$ 17,144,667	$ 18,400,258	$ 18,485,032
Non-Management (Union)	$ 38,398,376	$ 36,651,732	$ 37,288,451	$ 34,651,697	$ 33,794,760
Total	$ 57,472,066	$ 55,365,832	$ 57,930,489	$ 56,674,344	$ 55,866,316
Average Total Benefits (Current + Accrued)					
Management (including executive)	$ 59,842	$ 60,536	$ 63,347	$ 66,466	$ 65,210
Non-Management (Non-Union)	$ 33,245	$ 35,009	$ 37,392	$ 36,129	$ 34,649
Non-Management (Union)	$ 31,661	$ 33,172	$ 36,785	$ 35,621	$ 34,661
Total	$ 33,086	$ 34,586	$ 37,927	$ 36,883	$ 35,732
Total Compensation (Salary, Wages, & Benefits)					
Management (including executive)	$ 15,204,630	$ 13,692,253	$ 14,414,323	$ 14,980,199	$ 15,262,887
Non-Management (Non-Union)	$ 63,377,966	$ 62,729,649	$ 65,806,311	$ 72,945,712	$ 76,637,647
Non-Management (Union)	$ 155,995,158	$ 139,151,820	$ 136,597,357	$ 132,638,172	$ 133,396,935
Total	$ 234,577,755	$ 215,573,723	$ 216,817,992	$ 220,564,082	$ 225,297,468
Average Total Compensation (Salary, Wages, & Benefits)					
Management (including executive)	$ 245,866	$ 258,425	$ 261,082	$ 274,866	$ 277,507
Non-Management (Non-Union)	$ 137,060	$ 141,623	$ 143,521	$ 143,227	$ 143,651
Non-Management (Union)	$ 128,626	$ 125,941	$ 134,754	$ 136,347	$ 136,817
Total	$ 135,045	$ 134,665	$ 141,952	$ 143,542	$ 144,098

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INTERROGATORY 33:

Reference(s): Exhibit 4A, Tab 4, Schedule 6, page 1

The THESL Compensation and Benefit Review states that "Following Towers Watson's advice, benchmark roles – selected to reflect the wide range of positions at Toronto Hydro – were identified to support the compensation analysis. Balanced selection criteria were applied to ensure functional or level based bias did not disproportionately skew the analyses. Benchmark roles covered 66% of Toronto Hydro's employee population (well within the range (50% - 75%) typically suggested for this type of analysis)."

Please explain why all job positions were not included in this benchmarking effort? Does the exclusion of 1/3 of positions result in material efficiency gains in the production cost/time of the Benefit Review?

RESPONSE:

Toronto Hydro did not include all positions in the benchmarking exercise because it was not practical or feasible to do so in light of the amount of time, effort, and cost required to benchmark all employment positions. The exclusion of 1/3 of positions allowed Toronto Hydro to incur reasonable costs and expend reasonable time and effort to produce a data set that was within the range suggested by its expert consultant, Towers Watson.

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INTERROGATORY 34:

Reference(s): Exhibit 4A, Tab 2, Schedule 4, Appendix A

Please provide a breakout of the length of time customers were without power during the ice storm in 12 hour intervals. (i.e. # of customers without power 0-12 hours, 12-24 hours, etc).

RESPONSE:

Please see table below:

Duration (hours)	Number of Customers Interrupted
0 - 12	80,033
12 - 24	64,886
24 - 36	49,319
36 - 48	44,633
48 - 60	29,755
60 - 72	32,688
72 - 84	11,608
84 - 96	13,727
94 - 108	6,833
108 - 120	6,585
120 - 132	858
132 - 144	4,477
144 - 156	6,031
156 - 168	9,233
168 - 180	8,859

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Duration (hours)	Number of Customers Interrupted
180 - 192	7,266
192 - 396	4,316

RESPONSES TO SUSTAINABLE INFRASTRUCTURE ALLIANCE OF ONTARIO INTERROGATORIES

INTERROGATORY 35:

Reference(s): Exhibit 4A, Tab 2, Schedule 4, Appendix A

Did the experiences of the ice storm lead THESL to identify the need for any changes in maintenance policies and/or capital standards? If not, why not?

RESPONSE:

The findings from the Independent Review Panel Report on Toronto Hydro's response to the storm prepared by Davies Consulting (Exhibit 4A, Table 2, Schedule 4, Appendix A) were among the factors that led Toronto Hydro to propose expanded Vegetation Management activities during the filing period to improve system reliability and reduce the damage sustained during severe weather events. Toronto Hydro is also in joint discussions with the City of Toronto to address the tree canopy growth and areas of conflict with Toronto Hydro's overhead distribution system. Toronto Hydro has not yet identified any required changes to its Construction Standards due to the impact of the ice storm; there were minimal failures of any particular component of the overhead primary distribution system. The majority of the failures were caused by large tree branches falling on overhead distribution assets.

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INTERROGATORY 36:

Reference(s): Exhibit 4A, Tab 2, Schedule 4, Appendix A, page 8

The Report on the December 2013 Ice Storm states that "The IRP identified 25 recommendations for consideration by Toronto Hydro management".

Please list the 25 recommendations and describe THESL's status as to implementing any of them. Additionally, if THESL is not planning to implement any of the 25 recommendations, please explain the rationale and reasoning.

RESPONSE:

The 25 recommendations are listed below. The recommendations are currently being reviewed, assessed and evaluated for possible implementation. As this process has not been completed, at this time Toronto Hydro is unable to identify the status of implementation and cannot identify any recommendations that it does not plan to implement.

EPP-1	Reaffirm and communicate emergency management vision and strategy throughout the Company
EPP-2	Continue to inculcate the ICS-based approach to emergency response
EPP-3	Enhance centralized emergency management group resources to support full implementation and sustainment of ICS and ongoing relationships with key stakeholders
EPP-4	Dedicated grid operations emergency management resources

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EPP-5	Update the Emergency Response Plan to improve comprehensiveness and usability
RA-1	Adopt a resource management strategy that provides for deployment of all available resources, seamless integration and coordination of crews, and optimal supervisory span of control
RA-2	Create a comprehensive, scalable logistics plan as part of the Emergency Response Plan
DAP-1	Institute a damage assessment process that defines the required approach, procedures and competencies to establish situational awareness planning inputs within the specified timeframe (e.g. Develop a process to establish (calculate) timely and accurate ETRs within 48 hrs)
DAP-2	Develop a process to establish (calculate) timely and accurate ETRs
DAP-3	Establish standard work planning processes and procedures; train and exercise response personnel to drive consistency across central and local commands
RE-1	Pre-determine best restoration approach for each level (e.g., 1-4)
RE-2	Eliminate centralized mutual assistance and contractor Local Incident Command Centres and encompass those resources within three geographic LICCs
CCC-1	Secure capacity (people and technology) to support timely customer contact during an incident
CCC-2	Improve the process for ensuring accurate and uniform outage status messages across every mode of communication to customers (e.g., IVR, web, mobile application, low tech channels)
CCC-3	Employ outbound calling/texting to inform customers of outage status and other pertinent information
CCC-4	Work with City of Toronto to evaluate options for using 311 capabilities
COS-1	Develop a process to communicate timely and accurate ETRs at different levels of specificity
COS-2	In collaboration with the City of Toronto, develop an education program to improve stakeholder literacy of: restoration process, customer responsibility and preparedness

RESPONSES TO SUSTAINABLE INFRASTRUCTURE ALLIANCE OF ONTARIO INTERROGATORIES

COS-3	Expand liaison role to address education, communication and coordination with key community stakeholders (e.g., elected leaders, public safety) during major events
COS-4	Formalize process for developing, approving and disseminating key messages
IT-1	Include IT/OT technologies that provide real or near real-time intelligence in the technology strategic roadmap
VMSH-1	Evaluate all viable options to improve distribution system resilience during major weather events, including converting lines to underground for sections of circuits where it will enhance the reliability of services to critical infrastructure and facilities
VMSH-2	Gain support from key stakeholders on the level of resilience required and related funding
TH-C1	Strengthen emergency management coordination between City of Toronto and Toronto Hydro
TH-C2	In collaboration with City of Toronto (Urban Forestry), updated related urban forestry plans to ensure adequate line clearances to withstand major events.

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INTERROGATORY 37:

Reference(s): Exhibit 4A, Tab 2, Schedule 1, page 48

THESL states that its "inspection cycle is moving from a ten-year cycle to an eight-year cycle, resulting in the need to execute 1,350 cable chamber inspections in 2015 as opposed to 1,100 in 2014. "Please explain the basis for the decision to increase the frequency of inspections.

RESPONSE:

The Kinectrics audit of Toronto Hydro's Asset Condition Assessment ("ACA") tool (Exhibit 2B, Section D, Appendix A) identifies cable chambers as having a 35% sample size for the purposes of calculating the Health Index ("HI"), as compared to 24% in 2012. Based on an increased sample size of approximately 11%, the overall HI of the population dropped by 8% (Very Good to Good / Fair). This represents a significant change, and a potentially significant impact on Toronto Hydro's capital programs for the renewal of civil infrastructure; an increased sample size is important to ensure that the current HI score accurately represents the condition of the asset population.

Cable chambers have a useful life range of 50 to 80 years, with a typical life of 60 years; cable chamber roofs have a useful life range of 20 to 30 years, with a typical life of 25 years (Kinectrics Report K-418021-RA-0001-R002 – Toronto Hydro-Electric System Limited Useful Life of Assets). Based on these criteria, 62% of all cable chamber roofs will reach their end of life by 2015, growing to 78% by 2019 without intervention. While age alone is not the sole determining criterion in the useful life of assets, other factors

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(mechanical loading effects, exposure to corrosive salts, etc.) require an inspection to assess their impact. Due to their locations within public roadways, many of Toronto Hydro's cable chambers, present an immediate and significant safety hazard to the public in the event of a structural failure. The risks increase as chambers, and particularly their roofs, approach end-of-life. Inspecting these assets on a shorter cycle is expected to mitigate risks and provide Toronto Hydro a more accurate picture of the rate of deterioration of the cable chamber population by increasing the sample size of units measured in Toronto Hydro's ACA tool. This would, in turn, allow Toronto Hydro to better prioritize and plan the required capital work, while minimizing the impact on the maintenance program budget and executability.

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INTERROGATORY 38:

Reference(s): Exhibit 4A, Tab 2, Schedule 1, page 61

THESL states that it "maintains 850 Customer Substations". Do customers or THESL pay for the maintenance costs of these customer-owned substations?

RESPONSE:

Toronto Hydro owns all primary electrical distribution equipment at the 850 Customer Substations referred to in this exhibit and pays for all associated maintenance costs. The customer owns the civil infrastructure and pays for all associated maintenance costs. Please see Exhibit 4A, Table 2, Schedule 1, page 60 for more information.

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INTERROGATORY 39:

Reference(s): Exhibit 4A, Tab 2, Schedule 6, page 17

THESL states that it "manages vault access and customer isolation activities by assigning them, to the degree possible, to field workers affected by injuries." Please explain why? Do customer isolation activities involve a less strenuous level of work that can be performed by "field workers affected by injuries"?

RESPONSE:

As discussed in pages 14 and 15 of the above-reference Exhibit 4A, Tab 5, Schedule 6, Toronto Hydro manages vault access and customer isolation activities by assigning them to field workers affected by injuries. The activities assigned to each accommodated worker are determined on a case-by-case basis in consideration of each employee's particular circumstances and the scope of requisite tasks.

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INTERROGATORY 40:

Reference(s): Exhibit 4A, Tab 2, Schedule 17

Please prepare a table showing the total costs of this CIR application, broken out into its major subcategories (e.g., Legal, Consultants, Reports, etc.) that THESL is proposing to amortize over the 2015-2019 period. Please present these amounts broken out by the year in which they were incurred.

RESPONSE:

Please refer to Toronto Hydro's response to interrogatory 4A-CCC-38 part (b).

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INTERROGATORY 41:

Reference(s): Exhibit 4A, Tab 2, Schedule 17, page 9 of 9

THESL states "For the purposes of determining the Rates and Regulatory Affairs operating budget to be included in 2015 Revenue Requirement, Toronto Hydro proposes to amortize the costs incurred over the 2013-2015 period associated with the CIR application costs over the 2015-2019 rate period, as well as the costs associated with the Wireless Forbearance (Wireless) application."

a) How are the costs of this current application and the wireless forbearance application different than any other application that THESL filed during 2011-2014 and for which it is not seeking cost recovery (e.g. 2012 COS, 2012-2014 ICM, Smart Meter Clearance, etc). That is, why is historical cost recovery requested only for these two particular applications?

b) In the absence of a deferral account, did THESL at any time in any past application apply for and/or recover any application costs incurred in historic years over the applied for test year.

c) Please explain under what authority THESL believes it to be appropriate to recover out-of period costs (i.e., the 2013 and 2014 portion of the application costs) in an application for 2015 rates (particularly in the absence of an approved deferral or variance account).

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RESPONSE:

a) Toronto Hydro requests historical recovery for the CIR Application, in accordance with section 2.7.3.5 of the OEB's Filing Requirements (July 17, 2013) which states that:

> The applicant must provide a breakdown of the actual and anticipated regulatory costs, including OEB cost assessments and expenses for the current application such as legal fees, consultant fees, costs awards, etc. …. In addition, the applicant must identify how such costs are to be recovered (i.e., over what period the costs are proposed to be recovered). For distributors, the recovery period would normally be the duration of the expected cost of service plus IRM term under the 4th generation option. [emphasis added]

Please refer to Toronto Hydro's response to Interrogatory 4A-SEC-44 for an explanation of why Toronto Hydro believes that it is appropriate to request cost recovery for the Wireless Forbearance Proceeding.

b) No. Please see response to part (a).

c) Please see Toronto Hydro's response to part (a)..

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INTERROGATORY 42:

Reference(s): Exhibit 4A, Tab 2, Schedule 17, page 9 of 9

In the current application, with regard to CIR and Wireless Forebearance application costs, THESL states that "None of these costs were included in setting rates in the last 2011 cost of service application, which formed the basis for distribution rates over the 2011-14 period."

However, in its 2011 rate application (EB-2010-0142, Exhibit F2, Tab 6, Schedule 1) THESL noted that "Regulatory Affairs develops THESL's positions on defined issues, prepares regulatory filings and rate applications, and makes submissions in regulatory proceedings.", suggesting that general application costs are included within the Regulatory Affairs budgets. In Exhibit R1, Tab 1, Schedule 30, Appendix A of the same proceeding THESL noted that "Operating costs associated with the preparation and defense of applications is comingled with the Business Unit operating budgets."

a) Please reconcile these statements.
b) What level of costs for the filing and processing of applications was assumed/embedded in the Regulatory Affairs budget in THESL's 2011 rate application?
c) Please scale the amount in b) above by the total percentage OM&A reduction as a result of the 2011 Settlement Agreement.
d) If approval for historic cost recovery is granted in this application, should the amortized amounts (i.e. the costs of the CIR and Forbearance applications) not be

RESPONSES TO SUSTAINABLE INFRASTRUCTURE ALLIANCE OF ONTARIO INTERROGATORIES

calculated as net of any amounts currently embedded in rates (as calculated in c) above)? If not, why not?

RESPONSE:

a) Toronto Hydro's position is that the Wireless Forebearance and the CIR Application costs are incremental to the costs included as part of the approved Regulatory Affairs budget in its last rebasing application (EB-2010-0142). Toronto Hydro also notes that it incurred costs over the 2012-2014 period related to its 2012 Cost of Service and 2012-14 IRM/ICM applications, among others.

b) In Exhibit R1, Tab 1, Schedule 30, Appendix A (EB-2010-0142), Toronto Hydro identified its forecast 2011 Regulatory Affairs costs as including $359,625 in intervenor and application costs, $195,225 in expert witness costs, $513,750 in legal costs, and $430,934 in consultant costs, for a total of $1.5M.

c) Toronto Hydro's Settlement Agreement in EB-2010-0142 resulted in a reduction in OM&A of 4.8% ($226.8M Filed vs. $216M Approved through Settlement). Scaling the amounts in b) above by a factor of 95.2% (i.e., 100% - 4.8%) would result in an amount of $1.4M.

d) As noted in part (a), Toronto Hydro's position is that the requested amounts are incremental to the amounts approved in the 2011 Regulatory Affairs budget.

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INTERROGATORY 43:

Reference(s): Exhibit 4B, Tab 2, Schedule 1, page 1

THESL claims that "Where it can, Toronto Hydro takes advantage of available tax deductions and tax credits, such as research and development tax credits, to minimize its tax burden."

Please identify the amount of R&D credits claimed in each year from 2011-2014.

RESPONSE:

Please see table below:

	2011	2012	2013	2014
Federal R&D Credit	$2,101,495	$1,664,433	$1,255,767	N/A – not yet filed
Ontario R&D Credit	$495,117	$392,144	$295,861	N/A – not yet filed
Total R&D Credits	$2,596,612	$2,056,577	$1,551,628	N/A – not yet filed

RESPONSES TO SUSTAINABLE INFRASTRUCTURE ALLIANCE OF ONTARIO INTERROGATORIES

INTERROGATORY 44:

Reference(s): Exhibit 9, Tab 1, Schedule 1, page 13, Table 5

Please explain the sizeable variance between the forecast gains for the sale of 175 Goddard ($7.14 million) and the actual after tax gains ($2.47 million).

RESPONSE:

Please see response to interrogatory 9-OEBStaff-88.