RESPONSES TO OEB STAFF INTERROGATORIES

INTERROGATORY 144:

Reference(s): Exhibit 7, Tab 1, Schedule 1, p. 3
Exhibit 3, Tab 1, Schedule 2, p. 3
Cost Allocation Model, Sheet I5.2

Toronto Hydro states:
"At 135 customers per kilometre, Toronto Hydro's density factor is well above the 60 customers per kilometre ratio. The OEB's model acknowledges that the customer related proportion of jointly determined costs is lower for denser systems. Given that Toronto Hydro's density factor is much higher than the top grouping; the utility believes it is appropriate to use a custom-related proportion, which is aligned with the realities of Toronto Hydro's system. For the current application, Toronto Hydro uses a density factor of 23 percent, as approved by the OEB in the EB-2014-0116 decision" (Exhibit 7 / Tab 1 / Schedule 1 / p. 3).

a) Please explain the source of the 135 customers per km figure (Exhibit 7 / Tab 1 / Schedule 1 / p. 3). Specifically, please advise whether this is a historical number, and, if so, please provide the vintage of the number.

b) Toronto Hydro refers to the multi-unit dwellings as a significant driver of demand over the test period (Exhibit 3 / Tab 1 / Schedule 2 / p. 3). Please advise whether the 135 customer per km estimate will remain the same during the 2020-2024 period (Exhibit 7 / Tab 1 / Schedule 1 / p. 3). If not, please provide a revised estimate of the value.

c) Please explain why Toronto Hydro believe that the 23% density factor approved in the 2015-2019 Custom IR proceeding continues to be appropriate (Exhibit 7 / Tab 1 / Schedule 1 / p. 3). Please provide rationale supporting Toronto Hydro's proposal to not update the density factor for growth in multi-unit (i.e. high-density) dwellings (as experienced in the recent past and forecasted to continue over the 2020-2024 period).

d) Please provide additional details supporting the weighting factors for billing and collections (Cost Allocation Model / Sheet I5.2), which are based on estimates developed by Toronto Hydro's billing specialists (Exhibit 7 / Tab 1 / Schedule 1 / p.

RESPONSE:

a) Please note the Customer per kilometre value of 135 in Exhibit 7, Tab 1, Schedule 1 at page 3 was provided in error; the correct figure is 140 as per E1 worksheet of the Cost Allocation Model. Customer per kilometre data is calculated in the OEB's Cost Allocation model (E1 Categorization worksheet) where the density is the number of customers divided by the kilometres of lines information.

Table 1: Density of Utility

Density	Number of Customers	km of Lines
140	784,331	5,604

The kilometre of lines is described as "kM's of Roads in Service Area that have distribution lines" in the OEB's Cost Allocation model worksheet "I5.1 Misc Data". Customer information is current and kilometres of roads data is a recent estimate from the City of Toronto.

b) The 140 customers per kilometre estimate is used as an indicator of density value in the Cost Allocation model, and is a point in time estimate. This value is well over the 60 customers per kilometre which is the threshold for a high density in the Cost Allocation Model. The value itself is used only to assign the appropriate demand/customer allocation ratio for allocation of assets, and any further increase in the customer per kilometre estimate will not impact the assignment.

c) As noted in Exhibit 7, Tab 1, Schedule 1 at page 3, the 23 percent density factor is based on detailed cost study results for the old Toronto Hydro prior to amalgamation with the other legacy utilities. In the absence of an updated detailed cost study for the current Toronto Hydro service territory, Toronto Hydro feels it is the most representative estimate for the density factor, and better than the default value provided in the model for high density utilities, to be used in the OEB's generic Cost Allocation model.

d) The weighting factors used in Sheet I5.2 of the Cost Allocation Model for Billing and Collections are calculated based on metrics which are broadly representative of the amount of work required by Billing and Collections to service Toronto Hydro's different customer classes. Examples of these include late payments and billing adjustments. Each metric is broken out between customer classes and is assigned a weighting based on the varying complexity of the work between those customer classes and the level of expertise required. Then, the results are weighted against the residential customer class baseline.

In the interrogatory review process it was discovered that the wrong cells were transposed from the source information to the Cost Allocation model filed. The

impacts to the revenue to cost ratio of the corrections are minor, remain within the OEB's ranges, and have a minor impact on the proposed rates for some rate classes.

Please see Table 2 below for the corrected weighting factors.

Table 2: Revised Weighting Factors for Billing and Collection

Residential	GS <50	GS - 50 to 999	GS - 1000 to 4999	Large Use >5MW	Street Light	Unmetered Scattered Load	Competitive Sector Multi-Unit Residential
1.0	2.7	5.0	5.9	6.7	0.7	2.6	1.0

RESPONSES TO OEB STAFF INTERROGATORIES

INTERROGATORY 145:

Reference(s): Exhibit 7, Tab 1, Schedule 1, p. 5

Preamble:

The following table highlights the 2015 OEB-approved and 2020 proposed revenue-to-cost ratios.

Revenue-to-Cost Ratios (%)

Rate Class	2015 OEB Approved	2020		OEB's Guideline Ranges
		Model	Proposed	
Residential	94.3	103.2	103.2	85-115
Competitive Sector Multi-Unit Residential	100.0	101.4	100.0	
General Service < 50 kW	91.5	89.6	89.8	80-120
General Service 50-999 kW	119.0	105.3	105.3	80-120
General Service 1000-4999 kW	101.9	94.9	95.0	80-120
Large Use	95.3	84.6	85.0	85-115
Street Lighting	82.7	108.9	108.9	80-120
Unmetered Scattered Load	90.5	94.6	94.7	80-120

a) Please explain the significant changes in the revenue-to-cost ratios for the following rate classes (between 2015 OEB-approved and 2020 proposed):
   i) Residential
   ii) GS 50-999 kW

iii) GS 1000-4999 kW

iv) Large User

v) Street Lighting

b) Toronto Hydro is proposing to adjust the revenue-to-cost ratio for the Large Use class from 84.6% to 85.0% (between the model output and proposed), which is the minimum of the guideline range (Exhibit 7 / Tab 1 / Schedule 1 / p. 5). Please explain why Toronto Hydro is not proposing to increase the revenue-to-cost ratio for the Large Use class higher than the minimum of the guideline range in order to bring the class revenue-to-cost ratio closer to unity.

RESPONSE:

a) The Residential rate class change is primarily due to the reduced consumption per customer and the number of customers from 2015. Pleased see Toronto Hydro's response to interrogatory 7-CCC-45.

Changes in the Street Lighting rate class are primarily the result of the OEB's updated Cost Allocation Model treatment of number of devices per secondary lines. The 2015 Cost Allocation Model pre-dated the updated model which reflected the new treatment for Street lighting devices and connections.

One factor for the decreasing revenue to cost ratio for the GS 50 – 999 kW, GS 1000 – 4999, and Large Use in the 2020 are their lower billed kVA in the 2020 forecast when compared to the 2015 forecasted billed kVA in the 2015 CIR. Table 1 illustrates the 2015 and 2020 forecasted kVA.

Table 1: 2015 vs 2020 Forecasted Billed KVA

CIR	GS - 50 to 999	GS - 1000 to 4999	Large Use >5MV
2015	26,395,826	10,671,871	5,305,030
2020	24,899,249	10,392,864	4,789,334
% Difference	-6%	-3%	-10%

Another contributing factor is increased demand on Toronto Hydro's distribution system by these classes during the peak periods.

Table 2 illustrates the approximate 2020 Revenue to Cost ("R/C") ratios if the 2015 billed kVA and 2015 demand data were used in the 2020 CAS model.

Table 2: 2020 Revenue to Cost Ratios with 2015 Billed kVA and 2015 Demand Data.

	GS - 50 to 999	GS - 1000 to 4999	Large Use >5MV
2015 R/C	119%	102%	95%
2020 R/C with 2015 billed kVA and 2015 demand data	113%	98%	95%

b) Toronto Hydro's understanding of OEB policy is that Revenue/Cost Ratios should be within the ranges. Unless explicitly directed (such as the case of the CSMUR class) Toronto Hydro does not make any further adjustments to calculated results, so long as Revenue/Cost ratios are within the ranges.

RESPONSES TO CONSUMERS COUNCIL OF CANADA INTERROGATORIES

INTERROGATORY 45:

Reference(s): Exhibit 7, Tab 1, Schedule 1, p. 5

Please explain why there is a significant increase in the Residential revenue/cost ratio from 94.3% to 103.2%.

RESPONSE:

The increase in the Residential revenue/cost ratio is attributable to two factors in the OEB's cost allocation model: (i) Demand Related Costs; and (ii) Customer Related Costs. The residential class's share of both of these categories of costs was lower in 2020 model for the reasons described below. The impact of the changes to the Demand Related Costs was greater than the impact of the changes to the Customer Related Costs.

- **Demand Related Costs**: In the 2020 cost allocation model, Toronto Hydro used 2016 load data, compared to 2012 loads which were used in the 2015 cost allocation model. In 2016, the coincident and non-coincident demand factors for the residential rate class, relative to the other rate classes, were lower than in 2012, reflecting a shift in residential consumption patterns relative to other rate classes. For more information, please see the Demand Allocators in Worksheet E2 of the OEB's cost allocation model which is filed at Exhibit 7, Tab 1, Schedule 3.
- **Customer Related Costs**: The proportion of residential class customers decreased from 72.0 percent in 2015 to 69.8 percent in 2020. This percentage drives various customer cost allocators (i.e. Primary Feeders; Line Transformer; Secondary Feeder; Meter Capital; Meter Reading, and Billing).

RESPONSES TO ENERGY PROBE RESEARCH FOUNDATION INTERROGATORIES

INTERROGATORY 60:

Reference(s): **Exhibit 6, Tab 1, Schedule 6, p. 11, p. 12**
Exhibit 7, Tab 1, Schedule 3, p. 5, R/C Ratios

a) Please explain why the revenues collected and the resulting R/C ratios are appropriate for each of the residential and CSMUR Classes for 2020-2024.

b) Please provide revised cost allocations that produce R/C ratios of ~100% for Residential and CSMUR and as necessary, adjust the other classes particularly GS and Large Use to compensate.

c) Specifically adjust the fixed charges for each class to maintain an RC/Ratio of ~1.0

RESPONSE:

a) The proposed 2020 R/C ratios for both the Residential and CSMUR rate classes meet the OEB's threshold guidelines. The R/C ratios provided in the Revenue Requirement Work forms ("RRWF") for 2021 to 2024 (Exhibit 6, Tab 1, Schedules 3 to 6) are not meaningful because, unlike the 2020 RRWF, these work forms do not represent revenues or costs on a cost of service basis. This is due to the fact rates in 2021 to 2024 are based on the proposed Custom Price Cap Index rate framework described in Exhibit 1B, Tab 4, Schedule 1.

b) The table below shows the revised R/C ratios for 2020 by adjusting the fixed rate for the Residential and CSMUR class to achieve 100 percent and adjusting only the GS and Large Use to compensate.

Table 1: Revised Revenue to Cost Ratio with Residential and CSMUR at 100%

	Revenue ($ Millions)	Cost ($ Millions)	Adjusted R/C Ratio	Pre-filed R/C Ratio
Residential	324.7	324.7	100.0%	103.2%
GS <50 kW	124.2	131.6	94.4%	89.8%
GS - 50 to 999 kW	221.2	210.2	105.3%	105.3%
GS - 1000 to 4999 kW	72.2	74.2	97.2%	95.0%
Large Use >5MW	37.1	40.4	91.7%	85.0%
Street Light	24.6	22.6	108.9%	108.9%
USL	4.3	4.6	95.1%	95.1%
CSMUR	36.3	36.3	100.0%	100.0%
Total	**844.5**	**844.5**	**100.0%**	**100.0%**

c) Please see response to part (b) above.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

INTERROGATORY 53:

Reference(s): **Exhibit 7, Tab 1, Schedule 1, p. 2**
Exhibit 7, Tab 1, Schedule 2

Preamble:

The Application states that the hourly profiles developed based on 2016 load data were weather normalized to 2020 heating and cooling degree days.

a) Please explain how the "Weather Correction Factor" for each rate class was established. In doing so, please indicate whether the same value is used for each rate class and whether the same value is used for each month of the year.

b) With respect to Schedule 2, is the scaling ratio used in the last column equal to the 2020 forecast energy for the customer class divided by the sum of the hourly weather corrected class demands?

RESPONSE:

a) Weather correction factors are derived by class and by month. This is done by comparing the historical 2016 class load data with the weather normalized[1] historical

[1] Toronto Hydro weather normalizes to a ten-year historical average of heating degree-days, cooling degree-days, and dew point.

2016 class load data, to determine the relation between the two as a percentage. As such, different values are used for each class, and for each month.

b) Yes.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

INTERROGATORY 54:

Reference(s): **Exhibit 7, Tab 1, Schedule 1, pp. 3-4**
Cost Allocation Model, Tab I9

a) It is noted that the Cost Allocation model (Tab I9) directly assigns costs in USoA accounts 1830, 1835, 1840 and 1845 to the Street Lighting and USL classes. Please confirm that these are the assets referenced on pages 3-4 that are used solely by either Street Lighting or USL.

b) It is noted that the Cost Allocation model directly assigns cost in USOA accounts 1840 and 1845 to the GS 50-999, GS 1,000-4,999 and LU classes. Please explain the service arrangements to the customers in these classes that give rise to assets being used sole by one customer class such that they are eligible for direct assignment.

RESPONSE:

a) Confirmed. The assets referenced on pages 3-4 of Exhibit 7, Tab 1, Schedule 1 are used solely by either, or both, Street Lighting and USL.

b) There is no specific arrangement with the customers. Toronto Hydro determined during the initial cost allocation exercise that these assets are only serving specific rate classes, and thus that they would be directly allocated to the specific classes.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

INTERROGATORY 55:

Reference(s): **Exhibit 7, Tab 1, Schedule 1, pp. 3-4**
Cost Allocation Model, Tab I7.1 – Meter Capital

a) Do all of THESL's Residential, GS<50, GS 50-999, GS 1,000-4,999, LU and CSMUR customers only have one delivery point and one meter per customer?

RESPONSE:

a) A small number of customers have more than one delivery and/or meter points. Most of these customers are in the GS>50 kW and Large User classes.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

INTERROGATORY 56:

Reference(s): Exhibit 7, Tab 1, Schedule 1, p. 5

a) What would be the LU class revenue to cost ratio if all of the revenues shortfall arising from setting the CSMUR ratio at 100% was recovered from the LU class?

RESPONSE:

a) The LU class revenue to cost ratio would be 85.9 percent if the revenue shortfall arising from setting the CSMUR ratio at 100 percent was recovered only from the LU class.