Whitby Hydro Electric Corporation

November 23, 2017

BY RESS/COURIER
Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON
M4P 1E4

Dear Ms. Walli,

RE: Whitby Hydro Electric Corporation – 2018 Rate Applications
(EB- 2017-0085/EB-2017-0292) – Interrogatory Responses

Pursuant to Procedural Order #1 and the extension dates granted in the OEB letter dated November 17, 2017, please find enclosed Whitby Hydro Electric Corporation's response to OEB staff interrogatories for the above noted proceeding.

Please contact me if you have any questions.

Regards,

Susan Reffle
Vice-President

cc: Mr. John Vellone (email)
Ms. Katherine Wang (email)

100 Taunton Rd. E., PO Box 59
Whitby, ON L1N 5R8
Office: 905-668-5878
Customer service: 905-668-8480
Toronto line: 905-427-9481
Fax: 905-668-6598

Whitby Hydro Electric Corporation

Response to OEB Staff Interrogatories

November 23, 2017

OEB Staff IR #1

Ref: IRM Model – Tab 3: Account 1589 Global Adjustment - RPP True-up

As noted on page 10 of the manager's summary, there is a RPP true-up amount of $18,358.91 included in column BM related to the account 1589 Global Adjustment. The true-up relates to the 2016 period but was posted to account 1589 in 2017.

1) In booking expense journal entries for Charge Type 1142 (formerly 142), and Charge Type 148 from the IESO invoice, please confirm which of the following approach is used:
   a) Charge Type 1142 is booked into Account 1588. Charge Type 148 is pro-rated based on RPP/non-RPP consumption and then booked into Account 1588 and 1589, respectively
   b) Charge Type 148 is booked into Account 1589. The portion of Charge Type 1142 equalling RPP-HOEP for RPP consumption is booked into Account 1588. The portion of Charge Type 1142 equalling GA RPP is credited into Account 1589.
   c) Another approach. Please explain this approach in detail.

Response:
Whitby Hydro confirms that it uses the approach identified in (a) to book Global Adjustment for non-RPP consumption to account 4707 (which ultimately clears to variance account 1589).

With respect to 1588, Whitby Hydro performs a monthly adjustment (true-up) to:

- **Use information from the customer information system to isolate the difference between the actual amount of RPP versus market price compared to that used in the initial settlement with the IESO.**
- **Isolate any differences between settlement estimates for RPP GA and the estimated value of RPP GA from the IESO invoice**

A clearing account is used to hold the differences until final settlement with the IESO occurs. As a result, the 1588 balance ultimately reflects the true variance between revenue (billed + unbilled) calculated using market rates and

the IESO power cost (line 101) - all other items net to zero and therefore have no impact to 1588.

2) Whitby Hydro indicated that a true-up adjustment related to global adjustment has been included. With regards to the **Dec. 31, 2015 and Dec. 31, 2016** balances in Account 1589, all components that flow into Account 1589 (i to iv in tables below) should all be based on actuals at year end. Please complete the following tables to:
   a) indicate whether the component is based on estimates or actuals at year end and therefore, whether the component is being trued up, and
   b) quantify the adjustment pertaining to each component that is trued up from estimate to actual.

For 2015:

	Component	**a) Estimate or Actual**	**Notes/Comments**	**b) Quantify True Up Adjustment**
i	Revenues (i.e. is unbilled revenues trued up by year end)	Estimate	Like all other variance accounts, Unbilled Revenue is not subject to "True-up" prior to disposition. Unbilled is trued-up naturally as billings occur and unbilled is reset. The unbilled process and calculations are thoroughly scrutinized by external auditors for reasonability.	N/A
ii	Expenses - GA non-RPP: Charge Type 148 with respect to the quantum dollar amount (i.e. is expense based on IESO invoice at year end)	Actual	All amounts invoiced by the IESO for charge type 148 for Jan-Dec 2015 are posted	N/A
Iii	Expenses - GA non-RPP: Charge Type 148 with respect and RPP/non-RPP pro-ration percentages	Estimate	True-up amount posted in 2016. As it has not been picked up in any previous disposition, it is appropriate to capture in this disposition request, therefore no true-up adjustment is required to the balance included for disposition. Amount is identified in GA Analysis Workform $95,880.	N/A for any adjustment to the balance requested for disposition.
iv	Credit of GA RPP: Charge Type 142 if the approach under IR 1b is used	N/A	N/A	N/A

For 2016:

	Component	a) Estimate or Actual	Notes/Comments	b) Quantify True Up Adjustment
i	Revenues (i.e. is unbilled revenues trued up by year end)	Estimate	Like all other variance accounts, Unbilled Revenue is not subject to "True-up" prior to disposition. Unbilled is trued-up naturally as billings occur and unbilled is reset. The unbilled process and calculations are thoroughly scrutinized by external auditors for reasonability.	N/A
ii	Expenses - GA non-RPP: Charge Type 148 with respect to the quantum dollar amount (i.e. is expense based on IESO invoice at year end)	Actual	All amounts invoiced by the IESO for charge type 148 for Jan-Dec 2016 are posted.	N/A
Iii	Expenses - GA non-RPP: Charge Type 148 with respect and RPP/non-RPP pro-ration percentages	Estimate	True-up amount posted in 2017. The amount identified in the GA Analysis Workform has been identified in the application and picked up in the disposition requested for 1589 GA variance account	$18,359 included in disposition request.
iv	Credit of GA RPP: Charge Type 142 if the approach under IR 1b is used	NA	N/A	N/A

3) Whitby Hydro indicated that the 2016 Account 1588 balance have already been adjusted to for true-up. With regards to the **Dec. 31, 2015 and Dec. 31, 2016** balances in Account 1588, all components that flow into Account 1588 (i to iv in table below) should be based on actuals, please complete the following tables to:
   a) confirm that each of the components is based on actuals at year end and
   b) quantify the adjustment pertaining to each component that is trued up from estimate to actual

Response:

With respect to 1588, Whitby Hydro performs a monthly adjustment (true-up) to:

- **Use information from the customer information system to isolate the difference between the actual amount of *RPP versus market price* compared to that used in the initial settlement with the IESO.**
- **Isolate any differences between settlement estimates for RPP GA and the estimated value of RPP GA from the IESO invoice**

A clearing account is used to hold the differences until final settlement with the IESO occurs. As a result, the 1588 balance ultimately reflects the true variance between revenue (billed + unbilled) calculated using market rates and the IESO power cost (line 101) - all other items net to zero and therefore have no impact to 1588.

For 2015:

	Component	a) Estimate or Actual	Notes/Comments	b) Quantify True Up Adjustment
i	Revenues (i.e. is unbilled revenues trued up by year end)	Estimate	Like all other variance accounts, Unbilled Revenue is not subject to "True-up" prior to disposition. Unbilled is trued-up naturally as billings occur and unbilled is reset. The unbilled process and calculations are thoroughly scrutinized by external auditors for reasonability.	N/A
Ii	Expenses – Commodity: Charge Type 101 (i.e. is expense based on IESO invoice at year end)	Actual	All amounts invoiced by the IESO for charge type 101 for Jan-Dec 2015 are posted.	N/A
ijj	Expenses - GA RPP: Charge Type 148 with respect to the quantum dollar amount (i.e. is expense based on IESO invoice at year end)	Actual	All amounts invoiced by the IESO for charge type 148 for Jan-Dec 2015 are posted.	N/A
iv	Expenses - GA RPP: Charge	Actual	True-up ensures that there is no GA	N/A for any

	Type 148 with respect and RPP/non-RPP pro-ration percentages		impact to 1588 as outlined in the initial response above. The amount adjusted was $299,288	adjustment to the balance requested for disposition.
v	RPP Settlement: Charge Type 142 including any data used for determining the RPP/HOEP/RPP GA components of the charge type	Actual	True-up done to remove any differences between estimates used for IESO settlement and actual amounts posted. See initial response above. The amount adjusted was $1,097,677	N/A for any adjustment to the balance requested for disposition.

For 2016:

	Component	**a) Estimate or Actual**	**Notes/Comments**	**b) Quantify True Up Adjustment**
i	Revenues (i.e. is unbilled revenues trued up by year end)	Estimate	Like all other variance accounts, Unbilled Revenue is not subject to "True-up" prior to disposition. Unbilled is trued-up naturally as billings occur and unbilled is reset. The unbilled process and calculations are thoroughly scrutinized by external auditors for reasonability.	N/A
Ii	Expenses – Commodity: Charge Type 101 (i.e. is expense based on IESO invoice at year end)	Actual	All amounts invoiced by the IESO for charge type 101 for Jan-Dec 2016 are posted.	N/A
ijj	Expenses - GA RPP: Charge Type 148 with respect to the quantum dollar amount (i.e. is expense based on IESO invoice at year end)	Actual	All amounts invoiced by the IESO for charge type 148 for Jan-Dec 2016 are posted.	N/A
iv	Expenses - GA RPP: Charge Type 148 with respect and RPP/non-RPP pro-ration percentages	Actual	True-up ensures that there is no GA impact to 1588 as outline in the initial response above. The amount was $277,680.	N/A for any adjustment to the balance requested for disposition.

v	RPP Settlement: Charge Type 142 including any data used for determining the RPP/HOEP/RPP GA components of the charge type	Actual	True-up done to remove any differences between estimates used for IESO settlement and actual amounts posted. See initial response above. The amount was $695,917.	N/A for any adjustment to the balance requested for disposition.

OEB Staff IR #2

Ref: IRM Model – Tab 12: RTSR – Historical Wholesale

Using the "Units Billed" and "$ Amount" data Whitby Hydro entered in the "Hydro One" table in tab 12, the model calculates Hydro One retail transmission rates for each month in 2016. As shown in the screenshot below, there are 6 rates (highlighted) that do not match the Hydro One sub-transmission rates approved for the time period (as listed in tab 11).

1. Please provide explanation for the discrepancies.

Hydro One	Network			Line Connection			Transformation Connection			To
Month	Units Billed	Rate	Amount	Units Billed	Rate	Amount	Units Billed	Rate	Amount	
January	37,025	$3.3896	$ 125,498	37,025	$0.7852	$ 29,071	37,025	$1.7923	$ 66,360	$
February	36,050	$3.3396	$ 120,393	36,050	$0.7791	$ 28,087	36,050	$1.7713	$ 63,855	$
March	33,518	$3.3396	$ 111,937	33,518	$0.7791	$ 26,114	33,518	$1.7713	$ 59,371	$
April	32,680	$3.3396	$ 109,136	32,679	$0.7791	$ 25,461	32,679	$1.7713	$ 57,885	$
May	41,703	$3.3396	$ 139,273	41,703	$0.7791	$ 32,491	41,703	$1.7713	$ 73,869	$
June	45,684	$3.3396	$ 152,565	45,684	$0.7791	$ 35,592	45,684	$1.7713	$ 80,919	$
July	48,409	$3.3396	$ 161,665	48,409	$0.7791	$ 37,715	48,409	$1.7713	$ 85,746	$
August	49,001	$3.3396	$ 163,644	49,001	$0.7791	$ 38,177	49,001	$1.7713	$ 86,796	$
September	41,046	$3.3396	$ 137,077	41,046	$0.7791	$ 31,979	41,046	$1.7713	$ 72,705	$
October	33,978	$3.3396	$ 113,472	33,978	$0.7791	$ 26,472	33,978	$1.7713	$ 60,185	$
November	35,749	$3.3396	$ 119,387	35,749	$0.7791	$ 27,852	35,749	$1.7713	$ 63,322	$
December	37,258	$3.2968	$ 122,834	37,258	$0.7767	$ 28,939	37,258	$1.7648	$ 65,755	$
Total	472,099	$ 3.3401	$ 1,576,880	472,099	$0.7794	$ 367,948	472,099	$1.7724	$ 836,768	$

Response:

Whitby Hydro is not billed on a calendar month from Hydro One. The billing cycle normally goes from a date close to the 8th of one month to the next. When there is a rate change, the bill will be calculated using a proration of the old and new rates. The December 2016 invoice, for example, has 24 days from December and 10 days from January 2017 included. This practice of recording the Hydro One invoice in the period that it predominately relates to has been accepted by our auditors as it is recognized that the differences in billing cycle versus calendar month would not create a material difference in costs.

OEB Staff IR #3
Ref: Exhibit 2: Low Voltage (LV) Rates Page 10 of 13

In the application, Whitby Hydro states:

> In order to determine appropriate 2018 LV service rates, Whitby Hydro has used the same approach that is currently used in the IRM application process for the annual calculation of RTSR rates. Whitby Hydro modelled the calculation of the proposed LV service rates based on the RTSR tabs in the 2018 Rate Generator Model. The model applies the most current HONI rates to historical wholesale units to forecast the LV costs.

Table 2-14 below from Whitby Hydro's 2018 Stand Alone Rate Application[1] calculates the class shares of the Low Voltage Charges.[2] The class shares were determined based on the calculated LV revenue amounts based on 2016 metered kWhs and kWs multiplied by the updated current LV service rates.

Table 2-14: Low Voltage Rates to cover current wholesale LV costs

The purpose of this table is to re-align the current LV Rates to recover current wholesale LV costs.

Rate Class	Unit	Current LV	Non-Loss Adjusted Metered kWh	Billed kW	No Customers	Billed Amount	Billed Amount %	Current Wholesale Billing	Adjusted LV Service Rate
Residential	$/kWh	0.0001	367,928,950			36,793	40.1%	295,807	0.0008
Residential	$	0.1200			39,588	57,007			
GS <50	$/kWh	0.0003	88,118,790			26,436	11.3%	83,360	0.0009
GS >50	$/kW	0.1164		959,662		111,705	47.8%	352,240	0.3670
USL	$/kWh	0.0003	1,759,728			528	0.2%	1,665	0.0009
Sentinel Lighting	$/kW	0.0919		92		8	0.0%	0	0.0000
Street Lighting	$/kW	0.0901		16,143		1,454	0.6%	4,586	0.2841
						233,931		737,658	

OEB staff notes that Whitby Hydro established the existing LV service rates based on each customer class's proportion of the transmission connection amounts in its last cost of service (CoS) application.[3] Table 8-10 below from Whitby Hydro's 2011 CoS application calculates the class shares of the LV Charges.[4]

Table 8-10: Settlement Allocation of 2011 LV Charges to Rate Class

Customer Class Name	Test Year Revenues [6] Transmission - Connection	Class Share	Low Voltage Charges [7]
Residential	2,087,999	46.5%	112,136
General Service Less Than 50 kW	408,524	9.1%	21,940
General Service 50 to 4,999 kW	1,941,550	43.2%	104,271
Unmetered Scattered Load	13,557	0.3%	728
Sentinel Lighting	190	0.0%	10
Street Lighting	37,840	0.8%	2,032
TOTAL	**4,489,660**	**100.0%**	**241,117**

[1] EB-2017-0085
[2] 2018 Stand-Alone Rate Application Exhibit 2: Low Voltage Rates Page 13 of 13
[3] EB-2009-0274 Proposed Settlement Agreement, Appendix C Page 8 of 10.
[4] EB-2009-0274 Proposed Settlement Agreement, Appendix C Page 9 of 10

a) Please explain why Whitby Hydro did not calculate class shares based on forecast transmission connection revenues from the 2018 IRM Rate Generator Model,[5] and explain why Whitby Hydro's feels its approach is more appropriate in light of the fact that the LV Charges from its host distributor increased by over three times since it last set its retail LV Service Charges.

Response:

In this application, Whitby Hydro proposed the mechanistic approach of the RTSR model to proportion the costs between rate classes. The approach uses the current rates and billing determinants as the starting point to allocate forecasted costs by rate class. This is consistent with the OEB recognized approach for re-setting the RTSR rates each year.

Whitby Hydro is not opposed to calculating rate class shares based on the 2018 forecasted transmission connection revenues as this approach is consistent with that used in our last Cost of Service application.

Both approaches appear to be reasonable.

b) Please create two new tables, similar to Tables 2-14 and 2-15 calculating LV Service Rates from Whitby Hydro's 2018 Stand-Alone Rate Application[6] allocating costs based on forecast Transmission Connection revenues from the 2018 IRM Rate Generator Model[7] and calculate the resulting updated proposed LV Service Rates.

Response:

The table below is the allocation by rate class based on the forecast Transmission Connection revenues from the 2018 IRM Rate Generator Model.

Rate Class	Transmission Connection Revenue 2018 Forecast	Class Share
Residential Service Classification	2,506,443	47.4%
General Service Less Than 50 kW Service Classification	552,650	10.5%
General Service 50 To 4,999 kW Service Classification	2,187,468	41.4%
Unmetered Scattered Load Service Classification	11,036	0.2%
Sentinel Lighting Service Classification	166	0.0%
Street Lighting Service Classification	28,448	0.5%
Total	5,286,210	100.0%

[5] From Tab 15 RTSR Rates to Forecast.
[6] Exhibit 2: Low Voltage Rates Page 13 of 13
[7] Ibid 4

The tables below calculate LV Service Rates by allocating costs based on the forecast Transmission Connection revenue allocation above.

Table 2-14 Revised: Low Voltage Rates to cover current wholesale LV costs

The purpose of this table is to re-align the current LV Rates to recover current wholesale LV costs.									
Rate Class	**Unit**	**Current LV**	**Non-Loss Adjusted Metered kWh**	**Billed kW**	**No Customers**	**Billed Amount**	**Billed Amount %1**	**Current Wholesale Billing**	**Adjusted LV Service Rate**
Residential	$/kWh	0.0001	367,928,950			36,793	47.4%	349,782	0.0010
Residential	$	0.1200			39,588	57,007			
GS <50	$/kWh	0.0003	88,118,790			26,436	10.5%	77,119	0.0009
GS >50	$/kW	0.1164		959,662		111,705	41.4%	305,248	0.3181
USL	$/kWh	0.0003	1,759,728			528	0.2%	1,540	0.0009
Sentinel Lighting	$/kW	0.0919		92		8	0.0%	0	0.0000
Street Lighting	$/kW	0.0901		16,143		1,454	0.5%	3,970	0.2459
						233,931		737,658	

Table 2-15 Revised: Low Voltage Rates to cover forecast wholesale LV costs

The purpose of this table is to update the re-aligned LV Rates to recover future wholesale LV costs.								
Rate Class	**Unit**	**Adjusted LV**	**Non-Loss Adjusted Metered kWh**	**Billed kW**	**Billed Amount**	**Billed Amount %1**	**Current Wholesale Billing**	**Proposed LV Service Rate**
Residential	$/kWh	0.0010	367,928,950		349,782	47.4%	349,782	**0.0010**
GS <50	$/kWh	0.0009	88,118,790		77,119	10.5%	77,119	**0.0009**
GS >50	$/kW	0.3181		959,662	305,248	41.4%	305,248	**0.3181**
USL	$/kWh	0.0009	1,759,728		1,540	0.2%	1,540	**0.0009**
Sentinel Lighting	$/kW	0.0000		92	0	0.0%	0	**0.0000**
Street Lighting	$/kW	0.2459		16,143	3,970	0.5%	3,970	**0.2459**
					737,658		737,658	

Note 1: Allocation based on forecast Transmission Connection revenues from the 2018 IRM Rate Generator Model, tab 15

OEB Staff IR #4
Ref: Exhibit 2: Low Voltage Rates Page 11 of 13

As part of a distributors CoS rate application, per section 2.8.7 (Low Voltage Service Rates), of the Chapter 2 of the Filing Requirements,[8] distributors are to provide additional information regarding LV Service Rates. Please provide information for the following:

- Historical year data for 2014 and 2015 for LV Costs from Whitby Hydro's host distributor in the same format as Table 2-11 for 2014 and 2015.

Response:

2014 LV Costs

		Volumetric			Fixed			
	Month	Units Billed	Rate	Amount	Units Billed	Rate	Amount	Amount
	January	31,796	0.9890	31,446.24	4	298.89	1,195.56	32,641.80
	February	31,419	0.9890	31,073.35	4	298.89	1,195.56	32,268.91
	March	38,440	0.9890	38,017.44	4	298.89	1,195.56	39,213.00
	April	37,154	0.9890	36,745.53	4	298.89	1,195.56	37,941.09
	May	39,008	0.9890	38,578.55	4	298.89	1,195.56	39,774.11
	June	42,059	0.9890	41,596.62	4	298.89	1,195.56	42,792.18
	July	42,936	0.9890	42,463.91	4	298.89	1,195.56	43,659.47
	August	46,279	0.9890	45,769.46	4	298.89	1,195.56	46,965.02
	September	48,619	0.9890	48,084.57	4	298.89	1,195.56	49,280.13
	October	34,052	0.9890	33,677.31	4	298.89	1,195.56	34,872.87
	November	38,276	0.9890	37,855.04	4	298.89	1,195.56	39,050.60
1	December	38,069	0.8774	33,399.97	4	298.89	1,195.56	34,595.53
	Total	468,107	0.9799	458,707.99	48	298.89	14,346.72	473,054.71

1 Reflects expiration of 2014 HONI rate rider

[8] Filing requirements for Electricity Distribution Rate Applications - 2017 Edition for 2018 Rate Applications, July 20, 2017

2015 LV Costs

		Volumetric			Fixed			
	Month	Units Billed	Rate	Amount	Units Billed	Rate	Amount	Amount
	January	52,979	0.6820	36,131.83	4	298.89	1,195.56	37,327.39
	February	54,855	0.6820	37,411.23	4	298.89	1,195.56	38,606.79
	March	45,704	0.6820	31,170.08	4	298.89	1,195.56	32,365.64
1	April	33,010	1.0011	33,047.12	4	351.60	1,406.41	34,453.53
	May	36,606	1.4943	54,700.20	4	1132.02	4,528.08	59,228.28
	June	42,303	1.4943	63,213.76	4	1132.02	4,528.08	67,741.84
	July	46,706	1.4943	69,792.82	4	1132.02	4,528.08	74,320.90
	August	46,642	1.4943	69,697.49	4	1132.02	4,528.08	74,225.57
	September	39,853	1.4943	59,552.49	4	1132.02	4,528.08	64,080.57
	October	45,665	1.4943	68,237.76	4	1132.02	4,528.08	72,765.84
	November	59,273	1.4943	88,571.43	4	1132.02	4,528.08	93,099.51
2	December	47,657	1.4943	71,213.47	4	904.57	3,618.28	74,831.75
	Total	551,254	1.2385	682,739.68	48	839.75	40,307.93	723,047.61

1 Reflects May 2015 rate change

2 Reflects expiration of foregone revenue rate rider

- Year-over-year variances with explanations for substantive changes in the costs from 2014 actuals to 2018 forecasts.

Response:

Year-over-year variances

	2018	2017	2016	2015	2014
Low Voltage Charges	737,658	737,658	726,056	723,048	473,055
Year over year change	-	11,602	3,008	249,993	

The substantive change in costs happened in 2015 with an increase in one year of $250,000. This is largely driven by increased rates (both $/kW and fixed monthly charges) with some impact related to change in billed peak demands.

Rates

In Board Case number EB-2013-0416 Hydro One's sub transmission rates increased substantially in 2015 as outlined below:

Hydro One Sub Transmission Rates		2014 Jan 1/14	Interim 2015 Jan 1/15	2015 May 1/15	% increase
Service Charge (incl SMFA)		$ 298.89	$ 298.89	$ 433.07	44.9%
Rate Rider for Disposition of D/V (2015) #16				$ 16.60	
Rate Rider for Recovery of Foregone Revenue #19				$ 682.35	
	$	$ 298.89	$ 298.89	$ 1,132.02	278.7%
Facility Charge for connection to Common ST Lines (44kW to 13.8 kV)		$ 0.68	$ 0.68	$ 1.02	49.9%
Volumetric Rate Rider #9A, 10, 11, 12		$ 0.31			
Volumetric Rate Rider #14 - D/V				$ 0.47	
	$/kW	$ 0.99	$ 0.68	$ 1.49	51.1%

The increase in 2015 rates accounts for approximately $166,000 (or 66%) of the year-over-year change in LV costs in 2015.

Peak Demand (units billed)

The units billed in 2015 increased year-over-year due to the load transfers between the two transformer stations (TS) serving Whitby Hydro, only one of which is embedded in Hydro One. The Thornton TS (which is embedded in Hydro One) was required to take on more load due to station maintenance undertaken by Hydro One, construction work surrounding the 407ETR project and Town of Whitby road widening. Whitby Hydro reviews the requirements for load transfers between stations to try to minimize the financial impacts while ensuring safety and reliability. Demand moved back to more typical levels in 2016 however, rates continued to remain higher.

OEB Staff IR #5
Ref: Account 1508, Other Regulatory Assets – Sub account OEB Cost Assessments
Exhibit 2: Group 2 DVA Page 2 of 18

Whitby Hydro is requesting the disposition of the December 31, 2016 balances in Account 1508, Sub Account OEB Cost Assessments.

The OEB established the Cost Assessment Deferral Sub Account for electricity distributors and transmitters to record any material differences between OEB cost assessments currently built into rates and cost assessments that will result from the application of the new cost assessment model effective April 1, 2016.

Please confirm what Whitby Hydro's materiality threshold is and whether or not the amount being requested for disposition exceeds its materiality threshold.

Response:

Whitby Hydro's general materiality threshold of 0.5% is approximately $100,000. Whitby Hydro acknowledges that the amount included in Account 1508, Other Regulatory Assets - Sub account OEB Cost Assessment is below this amount.

Whitby Hydro suggests that the general materiality threshold should not apply in the disposition request for the 1508 individual sub-account, OEB Cost Assessments due to the following reasons:

- **The applicable materiality level is not clearly defined or consistently applied.**
- **Disposition requests that do not meet general materiality thresholds have been permitted in the past. Conversely, electricity distributors may also make a case as to why a balance should not be disposed of in an application.**
- **As the balance is a sub-account of Account 1508 – Other Regulatory Costs, and all other 1508 balances are being requested for disposition, it seems a reasonable and efficient process to clear all 1508 sub-account balances in a single stand-alone application.**
- **Account 1508 sub-account for OEB Cost Assessments is part of a request to address multiple Group 2 balances which in total, are well above the general materiality threshold.**
- **Whitby Hydro notes that in the case of electricity distributors who are involved in or contemplating a merger, rates may not be re-set for a period of up to ten years in order for there to be sufficient time for cost-efficiencies to be realized and shared. Electricity distributors should be permitted to record and make reasonable proposals to address balances to ensure timely dispositions to customers and avoid impacts which might be viewed as detrimental to merger or acquisition decisions.**

On this basis, Whitby Hydro proposes the amount in Account 1508, Other Regulatory Assets – Sub account OEB Cost Assessments is appropriately recorded and included for disposition along with other 1508 sub-accounts and Group 2 Account balances.

OEB Staff IR #6

Ref: Exhibit 1/page 8

In Table 1-3, Whitby Hydro shows a Gross Fixed Assets value of $4,443,935 and an Accumulated Depreciation of ($2,841,852) for conventional meters stranded due to replacement by smart meters for 2011. The resulting Net Fixed Assets is $1,602,083 for 2011.

a) Please confirm whether this is an average for the year (i.e., average of opening and closing amounts from fixed asset continuity schedules) or fiscal year-end (December 31, 2011).
b) If the amounts are fiscal year-end, please provide the rationale for using year-end.
c) If necessary, please provide a version that is based on average 2011 net book value of assets.
d) Please prepare a variation of Table 1-3 based on the average net book value of stranded meters for 2017. From the year-end 2016 and 2017 values shown in Appendix 2-S, OEB staff estimates that this would be $828,721, based on the average of the opening and closing GBV of stranded meters ($4,443,935+$4,443,935)/2=$4,443,935 less the average accumulated depreciation from 2017 opening and closing balances ($3,553,003+$3,649,404)/2=$3,601,204 and also less the net proceeds from disposition of $14,011.

Response:

a) Whitby Hydro confirms that the amounts represent the year-end values.

b) Whitby Hydro has indicated in its application that costs are pooled and that its timeline for deploying smart meters was between 2009–2011, with the primary mass deployment occurring in 2010. For the last cost of service, asset values specific to those meters stranded for smart meter deployment were not uniquely identified. As a result, Whitby Hydro outlined the general approach (accepted by external auditors) used to determine the stranded meter values and has used those values at the end of 2011 (when smart meter deployment was completed) as a reasonable proxy to calculate an estimate for the revenue requirement that was approved for 2011 rates.

c) As noted above, this information is not available.

d) Whitby Hydro has included a variation of Table 1-3 based on the average net book value of stranded meters for 2017 which follows the information provided in Appendix 2-S.

IR # 6(d) Revenue Requirement for Stranded Meters	
2017 Average Net Fixed Assets- Stranded Meters Amount	
Gross Fixed Assets (average)	4,443,935
Accumulated Depreciation (average)	(3,601,204)
Proceeds from Disposition	(14,011)
Average Net Fixed Assets (Rate Base)	828,721

Capitalization/Cost of Capital	%	$	%	$
Long Term Debt	56%	464,084	5.48%	25,432
Short Term Debt	4%	33,149	2.43%	806
Total Debt	60%	497,233	5.28%	26,238
Equity	40%	331,488	9.66%	32,022
Total	100%	828,721	7.03%	58,260

Determination of Taxable Income	
Utility Net Income	32,022
Adjustments for difference in CCA and depreciation rates	(19,280)
Taxable Income	12,742
Income Taxes	3,377
Gross up of Income Taxes	1,218
Grossed up Income Taxes	4,595

Revenue Requirement 2017	
	2017
Distribution Revenue	159,255
Depreciation Expense	96,400
Deemed Interest Expense	26,238
Income Tax Expense	4,595
	127,233
Utility Net Income	32,022

OEB Staff IR #7

Ref: OEB Electricity Distributor Yearbooks for 2012 to 2016

From the Statistical Yearbooks issued by the OEB on the data provided by electricity distributors under the Reporting and Record-keeping Requirements, OEB staff has prepared the following table based on Whitby Hydro's reported Residential and GS < 50 kW customer numbers:

Whitby Hydro				
Year	Number of Customers		Annual Growth Rate	
	Residential	GS < 50 kW	Residential	GS < 50 kW
2012	38,471	2,066		
2013	38,730	2,094	0.67%	1.36%
2014	38,963	2,156	0.60%	2.96%
2015	39,251	2,179	0.74%	1.07%
2016	39,588	2,220	0.86%	1.88%
Geometric Mean Growth Rate (2012-2016)			0.72%	1.81%

a) Please confirm or correct the numbers.

Response:

Whitby Hydro confirms that the Number of Customers listed above is correct.

b) OEB staff would assume that the growth of in-service smart meters by class would match the growth rate in the number of customer connections for each of these customer classes since the completion of initial smart meter deployment as reviewed in Whitby Hydro's smart meter application EB-2012-0479. Please confirm this, or provide Whitby Hydro's estimate of the growth rate for in-service smart meters since 2012, along with the rationale for Whitby Hydro's estimate.

Response:

Whitby Hydro considers growth of reported customer connections to be a reasonable proxy for the growth of in-service smart meters by class. Whitby Hydro does note that removals and replacements occur outside of the regular new growth requirements and these are outlined in OEB Staff IRR#8.

OEB Staff IR #8

Ref: Age Distribution of Smart Meters

Please fill out the following table showing the age distribution of in-service smart meters by customer class.

Age Distribution of Installed Smart Meters								
Year	Age of installed smart meter (as of December 31, 2017)	Average age on December 31, 2017 for smart meters installed during year	Smart Meters Installed per year		Removals/Replacements (by year of original smart meter installation)		Number of In-service smart meters by year of installation	
			Residential	GS < 50 kW	Residential	GS < 50 kW	Residential	GS < 50 kW
2006	11	11.5					0	0
2007	10	10.5					0	0
2008	9	9.5					0	0
2009	8	8.5					0	0
2010	7	7.5					0	0
2011	6	6.5					0	0
2012	5	5.5					0	0
2013	4	4.5					0	0
2014	3	3.5					0	0
2015	2	2.5					0	0
2016	1	1.5					0	0
2017	0	0.5					0	0
	Average age of smart meters		#DIV/0!	#DIV/0!			#DIV/0!	#DIV/0!

Response:

Whitby Hydro has inserted some additional columns to identify the replacements separately from the removals to provide greater clarity.

Age Distribution of Installed Smart Meters												
Year	Age of installed smart meter (as of December 31, 2017)	Average age on December 31, 2017 for smart meters installed during year	Smart Meters Installed per year		Replacements (by year of replacement)		Total		Removals (by year of original smart meter installation)		Number of In-service smart meters by year of installation	
			Residential	GS < 50 kW	Residential	GS < 50 kW	Residential	GS < 50 kW	Residential	GS < 50 kW	Residential	GS < 50 kW
2009	8	8.5	2,269	79			2,269	79	23	1	2,246	78
2010	7	7.5	33,891	271			33,891	271	287	3	33,604	268
2011	6	6.5	1,760	1,706			1,760	1,706	22	8	1,738	1,698
2012	5	5.5	604	41			604	41	17	5	587	36
2013	4	4.5	259	28			259	28	3	0	256	28
2014	3	3.5	233	62	177	7	410	69	4	2	406	67
2015	2	2.5	288	23			288	23	4	0	284	23
2016	1	1.5	337	41	183	12	520	53	0	0	520	53
2017	0	0.5	325	13			325	13	0	0	325	13
	Average age of smart meters		7.29620177	6.39861474							7.25296502	6.3654889

OEB Staff IR #9

Ref: Exhibit 1/page 11, Decision EB-2012-0479

In the current application, Whitby Hydro has proposed to update the SMIRR from 2013 to 2018 by cumulatively applying the Price Cap IR adjustment applicable in each year. Under Whitby Hydro's proposal, the SMIRR would increase from $2.20 per month to $2.37 per month for Residential customers, and from $7.11 per month to $7.65 per month for GS < 50 kW customers.

In its Decision and Order EB-2012-0479 issued April 25, 2013 and corrected May 6, 2013, under Accounting Matters on pages 9 and 10, the OEB states:

> In granting its approval for the historically incurred costs and the costs projected for 2012, the Board considers WHEC to have completed its smart meter deployment. …
>
> WHEC is authorized to continue to use the established sub-account Stranded Meter Costs of Account 1555 to record and track remaining costs of the stranded conventional meters replaced by smart meters. The balance of this sub-account should be brought forward for disposition in WHEC's next cost of service application.

While smart meter installations for new growth have continued since 2012, and are not taken into account as the SMIRR has not been updated, please confirm that new customers since 2012 (and even for new customers (i.e. new residential and commercial businesses) added in Whitby since Whitby Hydro started deploying smart meters a few years prior, these customers have been paying through their base distribution rates for "phantom" conventional meters that these new customers never had and Whitby Hydro never paid for. This situation arises because rates are essentially averaged or "postage-stamped" for all customers in that class.

a) Based on the responses to interrogatory 2 above, growth in smart meters is relatively low, in about the 1 to 2% range per year for Residential and GS < 50 kW. Based on a 15-year expected life for smart meters assumed in EB-2012-0479, this gives a depreciation rate of 6.67% per year. This is more than double the combined impact of customer growth and the annual Price Cap IR adjustment, which ranges from 1.30% to 1.80% and averages about 1.5% per annum. Based on this, OEB staff estimates that the average net book value per installed smart meter is decreasing over time, based on the fact that the original smart meters are depreciating at a rate significantly faster than growth and inflation less productivity.

   As the average NBV decreases, we would have the following:

- Return of capital (depreciation expense) will remain essentially constant (it is constant for the smart meters installed to the end of 2012; to the extent that there are any inflationary increases for smart meters installed after 2012, there may be some slight increase, but this would be relatively small due to the low annual growth rate.
- OM&A may increase, but we also have the fact that there are meter-related OM&A expenses factored into Whitby Hydro's base distribution rates and these are subject to the annual Price Cap IR adjustment. These expenses would include costs no longer being incurred, as one example, manual meter reads. It is not clear if all of the incremental OM&A expenses factored into the SMIRR calculation in EB-2012-0479 are ongoing. As a result, it is not clear that OM&A expenses would increase or be fully subject to the annual Price Cap IR adjustment.
- Interest expense on debt would not increase. It would remain constant or could even decrease if the principal is being repaid on an ongoing basis.
- Subject to changes in the cost of capital parameters, which have decreased since Whitby Hydro's last rebasing application and have been fairly constant at historically low levels since EB-2012-0479, the return on the equity portion of capital would decrease in line with the decrease of the average net book value per in-service smart meter. Taxes/PILs expense would move in line with the decrease in the average NBV per smart meter.

The SMIRR, by its derivation, is the incremental revenue requirement per in-service smart meter at the time that it is calculated. Since installed smart meters are depreciating faster than growth and inflation, the revenue requirement should be decreasing at this time. In this situation, what is the rationale for applying the Price Cap IR adjustment to increase the SMIRR over time?

c) Please explain how Whitby Hydro's proposal complies with the OEB's instructions on the accounting of smart meter capital and operating expenses as documented on pages 9 and 10 of Decision and Order EB-2012-0479.

Response:

For clarification purposes, Whitby Hydro notes:

- **Item a) references interrogatory 2. It is assumed that the appropriate reference should be interrogatory 7**
- **There is no IR# 9 b)**

a) Whitby Hydro has outlined its approach in the application which proposed that both the proxy revenue requirement for conventional (stranded) meters approved in the 2011 cost of service rates and the SMIRR approved in the 2013 Smart Meter disposition decision be treated in a similar manner by allowing

for both to be adjusted for the annual Price Cap before incorporating those amounts into the approved distribution rates. This follows the general process that would have occurred if the SMIRR had been incorporated into the standard distribution rates at the time of the original Smart Meter disposition application. The approved rates would then follow the regular annual mechanistic distribution rate adjustment defined in the IRM process and filing requirements.

As this stand-alone application is dealing with items outside of a cost of service process and without specific guidance to follow, Whitby Hydro took a more mechanistic approach which was built off of existing rates and processes instead of re-setting smart meter revenue requirement.

In general, Whitby Hydro does not dispute the general concepts outlined by board staff however, without complete information that is generally considered under a cost of service application, there is no clear conclusion that should be made. A mechanistic approach is not expected to match the final outcome that would occur under a cost of service which would incorporate many additional costs and investments as well as projected growth and efficiencies.

c) In accordance with the OEB's instructions on the accounting of smart meter capital and operating expenses documented on pages 9 and 10 of the Decision and Order EB-2012-0479 (the "Decision"), Whitby Hydro ceased to record smart meter capital and operating costs in Account 1555 and 1556. Only stranded meter costs continued to be included in Account 1555.

In the Decision, the OEB indicates that the Account 1555 balance related to stranded meters should be brought forward in Whitby Hydro's next cost of service rate application. Whitby Hydro acknowledges that the proposal provided in the Stand-Alone application does not follow this portion of the OEB's Decision and instructions from EB-2012-0479, however, Whitby Hydro believes there is reasonable support for the OEB to consider the proposal and permit Whitby Hydro to address stranded meters and SMIRR in this application.

Whitby Hydro met with Board Staff in January and June of 2017 prior to filing the Stand-Alone application to advise Board Staff of Whitby Hydro's intent to file its 2018 rate application using the Annual IR Index option and provide an update regarding the on-going nature of potential merger discussions between Whitby Hydro and Veridian Connections. In the meetings, Whitby Hydro also indicated that it was contemplating a Stand-Alone application to

address some Group 2 balances for Retail Services and Other Regulatory Costs. These discussions were expanded to include Account 1555 balances for Stranded Meters.

Whitby Hydro also became aware through the meeting with Board Staff that EnWin Utilities Ltd. ("EnWin") had been directed by a Board decision to file an application in 2017 to address stranded meters and SMIRR if it had not already done so through a cost of service application. This was another important indicator in Whitby Hydro's decision process to include a proposal to address stranded meters and SMIRR in the Stand-Alone application.

While it was both Whitby Hydro's and the Board's original intention to address Stranded Meter costs and the Smart Meter Incremental rate rider during the next cost of service, at the time of the Decision, neither party had anticipated that the next cost of service would be deferred and that a potential merger could play a role in further delaying timing of a cost of service for a lengthy period.

In the application (Exhibit 1, page 10-11), Whitby Hydro identified a number of reasons why it would be beneficial to address the stranded meter and SMIRR prior to the next cost of service application. These included,

- ***Improving efficiencies and ease of administration***
  The administration of separate rate riders for items that are all considered part of the distribution revenue becomes more cumbersome when there are multiple rate riders in place. Each rate must be setup, tested and maintained separately through the billing system and separately tracked using billing statistics, general ledger accounts, reviewed and audited. Combining them into one rate allows for some streamlining of processes and efforts.

- ***Maintenance of separate rate riders can be confusing to customers or stakeholders***
  It is especially difficult when there are longer periods of time expected between cost of service applications. This is the case for Whitby Hydro given that it is currently exploring a potential merger and may have a significant amount of time pass before a cost of service is prepared. It is misleading to customers and stakeholders who may be confused by the lengthy rate riders and incorrectly believe that they are bearing additional costs for smart meters compared to customers in other service territories simply because there are no other comparable rate riders still in place. It is also more difficult for customers and stakeholders to understand and compare the make-up of distribution rates.

- ***Allows for appropriate mechanistic rate adjustments through the Annual IR Index process.***
  Currently all distribution rates may be adjusted annually for mechanistic inflation and productivity (net price cap). At this time the SMIRR is not generally considered for these adjustments given that it was originally anticipated to be a short-lived rate rider assuming a cost of service would occur within a relatively short period of time. Given that Whitby Hydro has not filed a cost of service since 2011 and does not anticipate filing one in the short term due to merger discussions, it is reasonable that the SMIRR rate rider should be treated no differently than regular distribution rates and allow for an annual adjustment through a mechanistic approach. In essence, this would ensure Whitby Hydro's rates are not being negatively affected by its decision to pursue a potential merger.

Whitby Hydro proposes that the SMIRR rate rider (adjusted for annual net price cap adjustments) be incorporated into its regular distribution rates. This proposed approach attempts to assist in streamlining efforts by reducing the number of rate riders in place. This also has the added benefits of providing a more consistent and comparable presentation and understanding of distribution rates for customers as well as aligns Whitby Hydro on a more level playing field with other distributors by including the SMIRR portion as part of the annual mechanistic adjustment allowed for distribution related rates.

On this basis, Whitby Hydro believes that there are a number of changes that have taken place since the Board's previous Decision and further rationale which supports the Stand-Alone application for approval of stranded meter disposition and addressing stranded meters and SMIRR in 2018 distribution rates. Whitby Hydro believes there are benefits to closing off these items in advance of a cost of service which is not anticipated to occur in the short-term.

OEB Staff IR #10

Ref: Exhibit 1

Whitby Hydro's proposal for the adjustments to remove the revenue requirement of stranded conventional meters and to add in the revenue requirement of smart meters is based on retrospective analyses. The conventional meter revenue requirement is derived from Whitby Hydro's 2010 cost of service application and its 2013 smart meter application for the smart meter revenue requirement. It has then updated for the amounts of the cumulative impact of Price Cap IR adjustments.

An alternative approach would be to do the calculations on a prospective basis. This approach was used in a recent application filed by EnWin with respect to stranded meter and smart meter cost recovery (EB-2017-0132). This approach arose through discovery in that application and was agreed to as part of a proposed Settlement Agreement between EnWin and OEB staff; the Settlement Agreement was approved by the OEB in its decision issued on October 12, 2017.

In the approach agreed to in the EnWin application, both the stranded meter and smart meter incremental revenue requirement calculations were updated to correspond with the test period (settled on as the 2018-19 calendar and fiscal years). OEB staff notes that the end result was slightly different, in that EnWin was approved a stranded meter rate rider (SMRR) and an updated SMIRR for each of the Residential and GS < 50 kW classes for the two-year test period. Base rates were not adjusted, and the updated rate riders sunset on December 31, 2019.[9] At that point, the stranded meters will be fully recovered. The SMIRR is not extended; EnWin will have the option to make an application for any adjustment, but must take into account the revenue requirement for conventional meters embedded in base distribution rates given that the capital costs of stranded conventional meters will be fully recovered as of December 31, 2019.

OEB staff understands that Whitby Hydro's proposal is different, in that it is proposing to minimize the number of rate riders. A SMRR is proposed to recover the residual NBV of stranded conventional meters. However, to avoid a SMIRR or other rate riders, Whitby Hydro is proposing to decrement based distribution rates by the revenue requirement per stranded meter and add in the incremental revenue requirement per smart meter.

OEB staff would like Whitby Hydro's views on the following option for making the adjustments on a more current or prospective basis by calculating the conventional meter and smart meter revenue requirements based on 2017 values, rather than the historical values.

[9] In the Settlement Agreement attached to Decision and Order EB-2017-0132 (see interrogatory 5 below), the sunset date was agreed to on the assumption that EnWin would file for rebased rates for January 1, 2020.

For the conventional meter revenue requirement, Whitby Hydro was requested to provide this calculation based on 2017 average net book value in response to Interrogatory # 1d).

With respect to smart meters, OEB staff has extended Whitby Hydro's final smart meter model from the Draft Rate Order stage of its EB-2012-0479 application. Years from 2014 to 2018 have been added. No new smart meters have been added or any capital costs. Certain OM&A expenses have been carried forward from the 2013 values, but this has not been done for all expenses. While some expenses were documented as being both incremental and ongoing in responses to interrogatories in the EB-2012-0479 proceeding, it is not clear that all OM&A expenses are ongoing.

OEB staff provides the following table documenting the changes made to the model, with the affected sheets highlighted by shading:

Sheet	Changes
1. Utility Info	None
2. Smart Meter Costs	Added columns for years 2014 to 2018 in Columns W through AE, but no new data, except for extending certain OM&A costs from 2013 onwards, as discussed in part b) of this interrogatory.
3. Cost of Service Parameters	Added years 2013 through 2019 in Columns W through AE. Cost of Service parameter data for 2013 extended to each year for 2014 through 2018.
4. SM Assets and Rate Base	Added years 2014 through 2018 in Columns W through AE. Formulae were extended for all added years.
5. SM Rev Reqt	Added years 2014 through 2018 in Columns W through AE, and copied all formulae. No changes to formulae or data, so that the model calculates the smart meter revenue requirement for each year.
6. UCC Calculation	Added years 2014 through 2018 in Columns W through AE, and copied all formulae. No changes to formulae or data.
7. Taxes PILs	Added years 2014 through 2018 in Columns W through AE, and copied all formulae. No changes to formulae or data.
8. Funding Adder Revs	No changes. Not needed for SMIRR calculation.
8A. Opex Interest Monthly	No changes. Not needed for SMIRR calculation
8B. Opex Interest Annual	No changes. Not needed for SMIRR calculation
9. SMFA SMDR SMIRR	Changes to rows 73 and 75, to calculate aggregate SMIRR on 2017 numbers.
10A. Cost Alloc SMDR	No changes. Not needed for SMIRR calculation
10B. Cost Alloc	Changes made in column Q to use revenue requirement

SMIRR 2017	components calculated based on 2017 for calculating Residential and GS < 50 kW SMIRR.
10B. Cost Alloc SMIRR 2018	This sheet is a copy of 10B. Cost Alloc SMIRR 2017, but calculates what would be the SMIRR based on a 2018 test year.

a) Please provide Whitby Hydro's perspectives on the appropriateness of OEB staff's adjustments to the smart meter model to extend it to 2017 and 2018.

Response:

Whitby Hydro believes that if a prospective approach were to be taken, the adjustments to board staff's smart meter model are generally appropriate with the exception of Tab 4. SM Assets and Rate Base. Modifications to depreciation expense are required to accommodate changes in useful lives as well as depreciation expense drop offs related to half year rule depreciation. As a result, the following revisions are required for depreciation expense:

1. **Smart Meter Depreciation Expense 2014 – 2018**

   The existing formula for depreciation expense does not accommodate changes in useful life. For Whitby Hydro, the useful life was changed in 2014 from 15 to 12 years.

2. **Computer Hardware Depreciation Expense 2014 – 2018**

   The existing formula for depreciation expense does not accommodate changes in useful life. For Whitby Hydro, the useful life was changed in 2014 from 5 to 4 years.

3. **Computer Software and Application Software Hardware Depreciation Expense 2013 – 2018**

   The existing formula does not reflect depreciation drop offs due to the half year rule.

4. **Computer Hardware Depreciation Expense 2014 – 2018**

   The existing formula for depreciation expense does not accommodate changes in useful life. For Whitby Hydro, the useful life was changed in 2014 from 15 to 12 years.

b) It is not fully clear which operating expenses for 2013 were fully incremental and ongoing, as opposed to one time, in the EB-2012-0479. In preparing its model, OEB staff have estimated that the following 2013 operating expenses on Sheet 2: Smart Meter Costs appear to be ongoing:
   - 2.1.2 OM&A – Other - $80,000
   - 2.2.1 Advanced Metering Regional Collector – Maintenance - $1,000
   - 2.3.2 Advanced Metering Control Collector – Other - $42,000
   - 2.5.6 Other AMI OM&A Expenses Related to Minimum Functionality – Other AMI Expenses - $16,000

   It is also not clear to OEB staff that 2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with MDM/R, etc. of $122,000 are ongoing, even though Whitby Hydro has be recovering this in its SMIRR since 2013.

   Whitby Hydro should confirm which operating expenses are ongoing. If values differ from the 2013 value documented in EB-2012-0479, Whitby Hydro should itemize and propose these. All cost estimates and explanation of one-time versus ongoing operating expenses should be fully explained and supported.

   Whitby Hydro should also provide the number of Residential and GS < 50 kW smart meters, and the associated capital costs for the purchase and installation of smart meters for new customers and for replacements for failures, based on updated actual information from 2012 onwards, and including forecasts for 2017 and 2018 on sheet 2 as well.

Response:

Whitby Hydro has used the Smart Meter model provided by Board Staff and made the following updates:

Tab 2: **Updated 2012 – 2016 for audited actuals for smart meter capital and OM&A as well as actual smart meter installs during the calendar years in alignment with information provided in IRR#8. 2017 and 2018 reflect forecasts. Any updated cells are highlighted in purple.**

Tab 4: **Updated information related for retirements/removals. Depreciation formulas were overridden with values to reflect modifications required to align depreciation expense with actuals. Any adjustments/updates are highlighted in yellow. Please see response to (a) above for an outline of the Smart Meter model depreciation**

modifications that were required. An Excel spreadsheet supporting the adjusted depreciation values has also been provided.

Capital

In summary, updates for capital investments have been made to reflect:

- **Refinement of 2012 – 2013 figures to reflect actual audited information**
- **Actual capital costs associated with smart meters (new growth and replacements) for 2014 – 2016. 2017 and 2018 represent modest growth (see Tab 2, section 1.1 of model).**
- **2014 upgrade for control computer (see Tab 2, section 1.3 of model)**

OM&A

The schedules outline the changes made to the OM&A sections of the smart meter model as compared to those assumptions included in the OEB's model provided on November 8, 2017. Descriptions of the costs have been outlined.

Smart Meter OM&A Expenses		2012	2013	2014	2015	2016	2017	2018
Advanced Metering Communication Device (AMCD)								
2.1.2	OEB Model	69,963	80,000	80,000	80,000	80,000	80,000	80,000
Other	Whitby Hydro Update	76,220	74,547	74,532	76,829	78,039	82,000	82,000
	Difference	6,257	(5,453)	(5,468)	(3,171)	(1,961)	2,000	2,000

These costs are similar in nature to those approved in EB-2012-0479.

These expenses relate to the Operational Data Storage (ODS) system. The ODS system is necessary as it is utilized in collection, cataloging and presentment of power system parameters (voltage, power fail, tamper, identifying loss and restoration of power) and assessing overall meter health. The AMCC only stores data for 60 days as per the Ministry of Energy's Functional Specification and the provincial centralized MDMR does not store operational data at this time. Whitby Hydro has implemented business processes that make use of the ODS to streamline the exception management process within the MDMR.. This strategy enables Whitby Hydro to leverage the infrastructure deployed to satisfy the smart meter mandate.

Smart Meter OM&A Expenses		2012	2013	2014	2015	2016	2017	2018
Advanced Metering Regional C ollector (AMRC includes LAN)								
2.2.1	OEB Model	59,138	51,000	51,000	51,000	51,000	51,000	51,000
Maintenance	Whitby Hydro Update	59,594	56,772	64,498	71,606	72,824	74,519	76,755
	Difference	456	5,772	13,498	20,606	21,824	23,519	25,755

These costs are similar in nature to those approved in EB-2012-0479.

These expenses are for payment to the AMI vendor for the management and maintenance of the AMRC devices (base station / TGB Towers). The AMRCs are used to collect and transmit smart meter data to the AMCC.

Costs are invoiced in US dollars and have been negatively affected by the change in exchange rate since 2013.

Smart Meter OM&A Expenses		2012	2013	2014	2015	2016	2017	2018
Advanced Metering Control Computer (AMCC)								
2.3.2	OEB Model	46,613	42,000	42,000	42,000	42,000	42,000	42,000
Other	Whitby Hydro Update	44,957	42,828	48,656	54,019	54,938	56,216	57,903
	Difference	(1,656)	828	6,656	12,019	12,938	14,216	15,903

These costs are similar in nature to those approved in EB-2012-0479.

These expenses relate to payments to the AMI vendor for the management of the AMI network. The AMI vendor is responsible for the collection of the meter read data and is held to service level agreements for AMI network performance to ensure that the data is collected in accordance with the requirements of the Ministry of Energy Functional Specification. In the management of the AMI network role, the AMI vendor is responsible for all tasks related to the monitoring and maintenance of the AMCC hardware to ensure that the system is optimized. To clarify, Whitby Hydro has split the AMI vendor costs between 2.3.2 Other (monitoring and collection of meter read data) and 2.2.1 (maintenance of the AMI system).

Costs are invoiced in US dollars and have been negatively affected by the change in exchange rate since 2013.

Smart Meter OM&A Expenses		2012	2013	2014	2015	2016	2017	2018
Other AMI OM&A Costs Related to Minimum Functionality								
2.5.6	OEB Model	6,575	16,000	16,000	16,000	16,000	16,000	16,000
Other AMI Ex	Whitby Hydro Update	12,145	13,727	13,981	2,308	7,731	21,185	21,260
Expense	*Difference*	5,570	(2,273)	(2,019)	(13,692)	(8,269)	5,185	5,260

These costs are similar in nature to those approved in EB-2012-0479. A breakdown by year is provided as follows:

	2012	2013	2014	2015	2016	2017	2018
Escrow Costs	1,757	1,547	1,592	1,750	1,814	1,906	1,963
Sandbox Testing	5,000	5,000	5,000	0	5,000	5,000	5,000
Material (Customer Owned Equipment)	2,730	0	0	0	0	0	0
Security Audits	2,991	7,180	7,389	558	190	14,279	14,297
Miscellaneous	(333)	0	0	0	727	0	0
	12,145	13,727	13,981	2,308	7,731	21,185	21,260

Timing of security audits were shifted in 2015/2016 in order to review and incorporate requirements related to the OEB cyber security initiative. Security audits have resumed in 2017 and are planned to continue in 2018 and costs reflect the new scope of requirements in this area.

Smart Meter OM&A Expenses		2012	2013	2014	2015	2016	2017	2018
OM&A Costs Related to Beyond Minimum Functionality								
2.6.3	OEB Model	88,808	122,000	0	0	0	0	0
Other Costs	Whitby Hydro Update	98,806	125,033	150,213	118,033	121,537	144,806	162,574
	Difference	9,998	3,033	150,213	118,033	121,537	144,806	162,574

These costs are similar in nature to those approved in EB-2012-0479. A breakdown by year is provided as follows:

	2012	2013	2014	2015	2016	2017	2018
CIS licenses fees	11,035	11,166	11,837	12,428	13,174	14,600	15,038
Sync Operator	38,480	45,307	45,388	45,552	50,066	50,000	51,500
System Analyst	49,291	57,931	50,897	54,635	54,397	55,485	56,595
Web Presentment	0	10,629	4,412	5,418	3,900	10,000	10,000
Customer tools - web support	0	0	0	0	0	14,721	29,441
Meter Testing	0	0	37,680	0	0	0	0
	98,806	125,033	150,213	118,033	121,537	144,806	162,574

The meter testing (2014) was a one-time cost and related to evaluation and testing of meters. All other costs itemized above are expected to continue as on-going costs.

Web presentment costs are forecasted to increase due to changes and improvements to on-line TOU billing and related information. Whitby Hydro has also introduced changes to its website to further assist in enhancing on-line customer engagement solutions. The smart meter technology has provided an opportunity for Whitby Hydro to introduce new tools to help customers access their smart meter data; manage costs; store and access information required to provide timely outage map information; and bring features from the Green Button Initiative to customers. The Green Button standard will provide customers with direct and timely access to TOU electricity consumption and the ability to securely share it with innovative solutions and applications. The cost for the customer tools – web support, represents the cost to maintain and support these features. The costs for 2017 represent only one-half of the annual support costs related to smart meter driven initiatives/tools and annual costs are reflected in 2018.

The System Analyst and the Sync Operator continue to be integral roles which were incremental to the smart meter initiative:

The Sync Operator's role includes review and management of several billing related tasks as information flows through the smart meters and is necessary to ensure data is available and can be relied on for billing. Some examples include:

- **MDMR billing report monitoring and exception management**
- **AMI meter data report monitoring and exception management**
- **AMI/MDMR synchronization functions and sync report monitoring and exception management**
- **AMI/MDMR education and change management**

The System Analyst remains the utility lead for the business processes that include the IESO MDMR, the ODS and CIS/TOU billing. The role includes daily review/maintenance of MDMR reporting and metering communications. This position also remains the primary liaison between multiple vendors and service providers (the MDMR, Sensus, Util-Assist and Savage). Testing is required with each new MDMR release (the latest being EnergyIP 7.7). Additional duties have included implementing changes required with OEB initiative (EB-2015-0297) which required additional information be collected by the Smart Meter Entity and included changes to both the MDMR and Whitby Hydro's CIS.

The System Analyst is also involved testing for connectivity and functionality with the MDMR for every CIS update that is undertaken. Likewise, the System Analyst is responsible for managing software and firmware releases to the AMI network (ie. the Regional Network Interface (RNI)). Hardware updates are performed by the vendors, but the change management process is the responsibility of the System Analyst. The System Analyst is responsible for monitoring and resolving MDMR related logged calls through "Service Now" system and identifying and logging any new issues on behalf of Whitby Hydro. Logged calls can include connectivity and/or security issues such as expired certifications in the AS2 SFTP environment.

This position must also ensure that all connectivity between metering data and the MDMR, RNI and ODS are flowing daily. Any interruptions to interval data must be resolved immediately. The IT portion of this function is handled through an outside consultant but the System Analyst plays a key role in ensuring that this function is operational at all times. The next project of significance will be implementing encryption with all of the network meters.

Whitby Hydro recognized early on that the integration between Whitby Hydro systems and the IESO MDMR included a tremendous degree of complexity, and that to create a "single point of failure" within the utility by having only one resource with the critical knowledge regarding the new billing processes for residential and GS<50 customers would place the utility in a position of risk. However, the new processes did not require that 2 FTEs be put in place to implement the redundancy. A more cost effective model was presented through the Sync Operator role which a third party (Util-Assist) provides. By utilizing the Sync Operator service, Whitby Hydro acquires redundancy for the TOU billing processes while leveraging Util-Assist's expertise and knowledge as a key service provider in the industry, but at a cost of much less than an additional FTE.

The System Analyst remains the "go-to" person for the Sync Operator service, assisting with any problem meters or issues that are outside of the scope of the Sync Operator. Bi-weekly meetings are in place to ensure that appropriate oversight, communication and resolution of issues occur in a timely manner.

c) In its application, Whitby Hydro has proposed that the adjustment for the stranded meter be applied 100% to the Monthly Service Charge for Residential and GS < 50 kW classes. Consistent with Residential Rate Design, it has also proposed that the adjustment for the smart meter revenue requirement be applied 100% for the Residential class. However, for the GS < 50 kW class,

Whitby Hydro has allocated the smart meter adjustment between the Monthly Service Charge and volumetric (per kWh) charge. The meter costs are fixed and invariant to a customer's consumption once installed. Please explain the basis for applying the smart meter revenue requirement adjustment to both fixed and variable charges for the GS < 50 kW class. If allocation between fixed and variable is appropriate for smart meter costs for this class, would not the same also hold for how conventional meter costs were allocated and recovered historically? Would Whitby Hydro concur that it would be administratively simpler to apply all adjustments solely to the Monthly Service Charge for both customer classes, based on the fixed costs of smart meters once installed, and also in light of policies regarding rate design, both existent and under consideration, for Residential and General Service customers?

Response:

Whitby Hydro would like to clarify the proposed rate design approach used in the application:

Proposed	**Residential**	**GS<50 kW**
1) Adjustment to distribution rates (to remove stranded meters)	Fixed	Fixed/Variable
2) Stranded Meter Disposition rate rider (SMRR)	Fixed	Fixed
3) Adjustment to distribution rates (SMIRR adjusted for net price cap)	Fixed	Fixed

The question requests Whitby Hydro explain the basis for applying the smart meter revenue requirement adjustment to both fixed and variable rates for the GS<50 kW class. As per the table above (item #3), Whitby Hydro has applied the smart meter adjustment (SMIRR adjusted for net price cap) solely to the fixed distribution monthly service charge rate for GS<50 kW.

Whitby Hydro assumes that Board Staff may have intended to reference item #1 in the table - the adjustment to distribution rates to remove stranded meters. If so, Whitby Hydro advises that the basis for this was outlined in Exhibit 1, page 9, lines 1-7 and Table 1-4. Since the conventional (stranded) meter component of revenue requirement would not have been identified separately in the last cost of service for rate design, and no new rate design for the GS<50 kW customer class has yet been finalized, it seemed reasonable to maintain the same fixed/variable proportions that were approved in the last cost of service application.

Whitby Hydro has outlined the basis for the fixed/variable split used in its application and does not see any significant advantage/disadvantage from an

administrative perspective to using an adjustment that is 100% fixed. However, with respect to the adjustment to distribution rates to remove the stranded meter component (item #1), Whitby Hydro does acknowledge that an argument can be made to consider using a rate design approach (ie. 100% fixed) that is more in line with that used for the SMIRR adjustment (item #3) for GS<50 kW.

d) OEB staff is proposing an option whereby the adjustments to remove the revenue requirement related to stranded conventional meters and the addition of the incremental revenue requirement for smart meters is made to the current approved Monthly Service Charge for each of the Residential and GS < 50 kW customer classes. The adjustments are based on average or mid-year 2017 calculations per the amended model. This would create pro forma adjusted 2017 Monthly Service Charges to which would be applied the 2018 Price Cap IR adjustment. The Stranded Meter Rate Rider would be in place for the appropriate time as approved by the OEB, at which point all costs related to the stranded meters would be recovered (i.e., the balance of Account 1555/sub-account Stranded Meter Costs would be zero). With the adjustments made to the Monthly Service Charges for the Residential and GS < 50 kW customer classes, no costs would be included for conventional meters and all costs for in-service smart meters would be considered to be recovered through the base distribution rate on a going-forward basis. The Monthly Service Charges would be subject to IRM adjustments in accordance with OEB policy as it currently exists or may evolve in the future. Please provide Whitby Hydro's views on OEB staff's proposal.

Response:

Whitby Hydro believes there is merit in both the retrospective and prospective approaches outlined by Whitby Hydro and Board Staff.

Whitby Hydro is not strongly opposed to taking a prospective view and further applying the general approach for rate design and price cap adjustments outlined by Board Staff in IR#10 b. However, Whitby Hydro would want to ensure that any necessary adjustments to the OEB smart meter model are considered in the smart meter revenue requirement calculation in order to appropriately reflect updates for more accurate information related to growth, capital investments, OM&A and depreciation and their related impacts.

OEB Staff IR #11

Ref: Decision and Rate Order EB-2017-0132 (EnWin Utilities Ltd.)

On March 13, 2017, EnWin Utilities Ltd. (EnWin) filed an application (EB-2017-0132) with the OEB to deal with the matter of recovering the residual net book value of stranded conventional meters and to deal with ongoing recovery of smart meters. OEB staff note that Whitby's application is similar to that of EnWin on these issues; however, the two utilities proposed different approaches.

EnWin's application was resolved by way of a proposed settlement agreement between EnWin and OEB staff, which agreement the OEB ultimately approved in its Decision and Rate Order EB-2017-0132 issued on October 12, 2017. In the settlement, EnWin was approved a Stranded Meter Rate Rider(SMRR) to recover, along with the amounts recovered in distribution rate, the remaining net book value of stranded conventional meters so that all stranded conventional meter costs would be recovered by December 31, 2019, and an updated SMIRR for the period from January 1, 2018 to December 31, 2019.

Whitby Hydro has proposed an alternative approach which avoids adding additional rate riders, and instead is only proposing a SMRR to recover the remaining NBV of stranded meters, with the SMIRR being added to and an offsetting monthly revenue requirement per stranded meter removed from the distribution rates for Residential and GS < 50 kW. The intention is a retrospective proxy for what would occur in a traditional cost of service rebasing.

OEB staff considers that the same information filed in the application and being requested in interrogatories could be used to calculate SMRRs and SMIRRs as was the case for EnWin.

Settlement agreements are not necessarily precedential, but that does not necessarily preclude them from being used as a precedent where the settlement agreement or some aspect of it, is seen as improving existing policy.[10]

[10] While not related to a formal settlement agreement, OEB staff notes a similar approach whereby a negotiated and agreed to methodology in an application subsequently became established OEB policy. In its 2008 IRM rate application (EB-2007-0900), Cambridge & North Dumfries Hydro (now Energy+) filed an Agreed Statement of Facts on behalf of itself and its partially embedded distributors, Hydro One Networks Inc. and Waterloo North Hydro Inc. This document resulted from a technical conference between the three distributors and OEB staff, dealing with the issue of calculating Low Voltage rates applicable to the embedded distributors. The proposal was an enhancement to the methodology documented in the 2006 Electricity Distribution Rate Handbook. The OEB approved the methodology proposed in the Agreed Statement of Facts. The approach was adopted subsequently by the OEB and

Please provide Whitby Hydro's views on the strengths, weaknesses, and the reasonableness of adopting an approach similar to that propose, and approved by the OEB, for establishing separate SMRR and SMIRR rate riders going forward.

Response:

Whitby Hydro has proposed establishing a separate SMRR which is the same general concept as that approved in EnWin's Decision (EB-2017-0132). As this is a disposition to recover the net book value of stranded meters as a final disposition, establishing a SMRR is reasonable and allows for appropriate recovery of the balance in Account 1555 for stranded meters.

The smart meter revenue requirement is ultimately intended to be included as part of the regular distribution rates in a cost of service application. The SMIRR was originally established to serve as a temporary rate rider to address recovery of the smart meter revenue requirement for electricity distributors until the next cost of service is completed and smart meters are incorporated in the distribution rates. In most cases, electricity distributors re-base approximately every five years and as a result the SMIRR is not in place for a lengthy period of time. However, in some situations, the period of time is extended to a longer timeframe. This occurs when there is a decision to move to the Annual IR Index rate process or in the case of a merger/acquisition where an electricity distributor may extend the time period before filing a cost of service application for up to ten years in order to realize and share some of the benefits of efficiencies with shareholders and customers. In these cases, where the timeline for a cost of service application is extended well beyond the typical five year period, it seems more appropriate to consider incorporating the SMIRR into regular distribution rates. This makes things cleaner from an administrative aspect; less confusing to customers and other stakeholders who may wonder if they are paying an extra cost for smart meters rate riders compared to customers who reside in another LDC's service area in which smart meter revenue requirement is already a part of the regular distribution rate; makes things more comparable with other LDCs; and allows the smart meter revenue requirement to be handled in a manner consistent with distribution revenue going forward.

In EnWin's application and decision, it appears that a cost of service application may be contemplated within a relatively short timeframe. In this manner, Whitby Hydro differs in that it is in the midst of potential merger discussions and

---

is Appendix 2-Q in the Cost of Service Filing Requirements for Electricity Distributors, and is still in use where the host distributor does not have a separate rate class for any embedded distributor(s) in its cost allocation model.

contemplates the possibility of a much longer timeframe before its next cost of service application. As a result, it appears that the benefits of addressing the SMIRR by incorporating it into regular distribution rates are clearer for Whitby Hydro's scenario.

Whitby Hydro does however acknowledge that incorporating the SMIRR into distribution rates also limits the opportunity for Whitby Hydro to re-address changes to smart meter revenue requirement in the future prior to the next cost of service application. If significant levels of re-investment and additional costs for smart meters are required in future years, this may present some risk to Whitby Hydro.

OEB Staff IR #12

Ref: EB-2012-0479, OEB Staff IR # 6

In its EB-2012-0479 application, in response to an interrogatory from OEB staff, Whitby Hydro stated that it had not accounted for any operational efficiencies from smart meters at that time:

> **6. Ref: Application [EB-2012-0479], page 8 – Operational Efficiencies**
>
> On page 8 of the Application, WHEC states that "[a]ll costs claimed in this application are incremental, and have been incurred for the purpose of implementing the Smart Meter and TOU programs (they would not otherwise have been incurred)."
>
> WHEC notes that it implemented TOU billing in 2012. Further, WHEC's next Cost of Service application is scheduled for rates to be effective January 1, 2015. This is nearly two years hence.
>
> What, if any efficiencies and costs savings, such as from reduction or elimination of manual meter reading, has WHEC identified and how are these taken into account in this Application?
>
> **Response:**
>
> WHEC has not included the impact of any efficiencies and cost savings that may occur as a result of shifting from conventional meters to smart meters in this application. At this time, the primary savings is expected to be gained from the elimination of manual meter reading, however, as completion of the smart meter rollout and time-of-use billing changes are still relatively recent, it is expected that WHEC will be in a better position to assess any costs eliminated or saved in its next cost of service application. WHEC believes that it is reasonable to review these savings at a time when there is a greater understanding of the on-going costs and benefits associated with operations in a smart meter environment.

As Whitby Hydro has noted, it has deferred rebasing and may not rebase for an extended period if a potential merger is consummated and approved.

a) Please identify what operational efficiencies Whitby Hydro has recognized after over five years of operations with smart meters in place.

b) Please identify how Whitby Hydro has factored these operation efficiencies into its proposal in this application.
c) If it has not recognized operational efficiencies related to smart meters or taken them into account in this application, please explain.

Response:

a) Whitby Hydro notes that the smart meter initiative has resulted in a number of changes in operational processes. Some of these changes have allowed for new information to be provided and shared with customers (on-line consumption information, outage maps etc.) and also allowed operational staff to understand and allocate resources more effectively during outages etc. However, Whitby Hydro has not identified any operational efficiencies from the implementation of smart meters that result in cost savings with the exception of some reduction in manual meter reading costs.

b) Whitby Hydro has not factored the efficiency (manual meter reading) into the proposal identified in this application. The proposal took the approach of isolating the core revenue requirement associated with the conventional stranded meter related capital and depreciation costs that were included in existing approved distribution rates. The proposed smart meter revenue requirement stems from the approved smart meter incremental revenue requirement (EB-2012-0479).

Whitby Hydro has an efficiency component included in its annual price cap adjustment and does not generally believe it is appropriate to incorporate isolated cost efficiencies into applications outside of a cost of service process. To do so would be an unbalanced approach since all cost efficiencies are not able to be considered in conjunction with other new or increasing costs which have been introduced since the time of Whitby Hydro's last re-basing. There have been a number of new regulatory requirements in the industry (mandated monthly billing being one example), which introduced challenges and cost pressures that Whitby Hydro must continue to absorb in existing rates. Whitby Hydro suggests that in the absence of a full cost of service, changes in operating costs (due to efficiencies or conversely cost pressures) are expected to be managed by the electricity distributor until a cost of service application. As a result, Whitby Hydro is always striving to achieve efficiencies as they assist in offsetting other natural cost increases related to inflation, market changes or the introduction of new or changing regulatory requirements.

c) See response (b) above.