

## **Responses to Board Staff Technical Conference Questions**

## Update to Working Capital Allowance

1. When updating the cost of power for the Working Capital Allowance, please confirm that the forecast of customers and load from the Settlement Agreement Table 29 was used. If not, what changes were made and why?

### Response:

The forecast of total customers and total load from the Settlement Agreement Table 29 was used to update the cost of power for the Working Capital Allowance. Horizon Utilities notes that subsequent to the Settlement Agreement, a Large Use (1) customer was reclassified to the Large Use (2) customer class based on the definition approved by the OEB in the December 12, 2014 decision. The definition of the Large Use (2) class is customers with a capacity greater than 5 Megawatts and served by dedicated assets. However, the total # of customers and load in the Large Use customer classes did not change. The reclassification did not impact the cost of power calculation. Table 1 below identifies the impact of the reclassification on # of customers and load.

**Table 1 – Reconciliation of Customers and Load from the Settlement Agreement (EB-2014-0002) to the 2016 Annual Filing (EB-2015-0075)**

2016 Load Forecast (raw kWh)	kWh unadjusted			# of customers		
	Table 29 Settlement Proposal/ Agreement EB-2014-0002	2016 Annual Update	Variance	Table 29 Settlement Proposal/ Agreement EB-2014-0002	2016 Annual Update	Variance
Residential	1,637,504,596	1,637,504,596	(0)	222,279	222,279	-
GS < 50kW	591,826,169	591,826,169	(0)	18,494	18,494	-
GS > 50kW	1,857,725,645	1,857,725,645	0	2,230	2,230	-
<b>Large Use</b>	<b>610,834,051</b>	<b>610,834,051</b>	<b>0</b>	<b>11</b>	<b>11</b>	<b>-</b>
Large Use 1 <sup>1</sup>	275,125,662	228,936,405	(46,189,257)	7	6	(1)
Large Use 2 <sup>1</sup>	335,708,389	381,897,646	46,189,257	4	5	1
Unmetered Scattered Load	11,174,331	11,174,331	(0)	1,857	1,857	-
Sentinel	418,980	418,980	0	248	248	-
Street Lighting	39,602,538	39,602,538	0	4	4	-
<b>TOTAL</b>	<b>4,749,086,310</b>	<b>4,749,086,310</b>	<b>0</b>	<b>245,123</b>	<b>245,123</b>	<b>-</b>

1. Large Use customer reclassified from Large Use (1) to Large Use (2) post settlement proposal

## Update to Working Capital Allowance

2. Please provide an updated table equivalent to that provided in Appendix 2-2 of Exhibit 2, Tab 2 in EB-2014-0002.

### Response:

1 Horizon Utilities provides an updated table equivalent to that provided in Appendix 2-2 of Exhibit  
2 2, Tab 2 in its Custom IR Application (EB-2014-0002) in Table 1 below.

### 3 Table 1 - 2016 Cost of Power

Electricity - Commodity	2016 Forecasted Metered kWhs	2016 Loss Factor	2016		
Class per Load Forecast			Uplifted	Cost Of Energy	Total Cost
Residential	1,637,504,596	1.0379			
- Rpp			1,574,138,047	\$0.09952	\$156,658,088
- Non Rpp			125,427,972	\$0.09721	\$12,192,731
GS<50kW	591,826,169	1.0379			
- Rpp			515,115,401	\$0.09950	\$51,252,156
- Non Rpp			99,140,980	\$0.09719	\$9,635,129
GS>50kW	1,857,725,645	1.0379			
- Rpp			216,722,199	\$0.09948	\$21,559,193
- Non Rpp			1,711,411,248	\$0.09717	\$166,295,413
Large Use	228,936,405	1.0060			
- Rpp			0	\$0.00000	\$0
- Non Rpp			230,310,024	\$0.09715	\$22,375,585
Large Use with Dedicated Assets	381,897,646	1.0060			
- Rpp			0	\$0.00000	\$0
- Non Rpp			384,189,032	\$0.09712	\$37,310,602
Unmetered Scattered Load	11,174,331	1.0379			
- Rpp			10,994,750	\$0.09957	\$1,094,730
- Non Rpp			603,088	\$0.09726	\$58,654
Sentinel Lighting	418,980	1.0379			
- Rpp			431,076	\$0.09959	\$42,931
- Non Rpp			3,783	\$0.09728	\$368
Street Lighting	39,602,538	1.0379			
- Rpp			238,400	\$0.09953	\$23,729
- Non Rpp			40,865,075	\$0.09722	\$3,972,952
<b>TOTAL</b>	<b>4,749,086,310</b>		<b>4,909,591,075</b>		<b>\$482,472,262</b>

Transmission - Network		Volume Metric	2016 Forecast (EB-2015-0075)		
Class per Load Forecast					
Residential		kWh	1,699,566,020	\$ 0.0078	\$ 13,256,615
GS<50kW		kWh	614,256,381	\$ 0.0068	\$ 4,176,943
GS>50kW		kW	5,099,311	\$ 2.7065	\$ 13,801,286
Large Use (1)		kW	538,661	\$ 3.0917	\$ 1,665,379
Large Use (2)		kW	2,021,163	\$ 3.0917	\$ 6,248,830
Unmetered Scattered Load		kWh	11,597,838	\$ 0.0069	\$ 80,025
Sentinel Lighting		kW	1,185	\$ 2.2490	\$ 2,666
Street Lighting		kW	109,948	\$ 2.1306	\$ 234,255
<b>Total</b>			<b>2,333,190,508</b>		<b>\$ 39,466,000</b>

<b>Transmission - Connection</b>		<b>Volume Metric</b>	<b>2016 Forecast (EB-2015-0075)</b>		
<b>Class per Load Forecast</b>					
Residential		kWh	1,699,566,020	\$ 0.0059	\$ 10,027,440
GS<50kW		kWh	614,256,381	\$ 0.0053	\$ 3,255,559
GS>50kW		kW	5,099,311	\$ 2.1215	\$ 10,818,189
Large Use (1)		kW	538,661	\$ 2.4379	\$ 1,313,202
Large Use (2)		kW	2,021,163	\$ 2.4379	\$ 4,927,394
Unmetered Scattered Load		kWh	11,597,838	\$ 0.0054	\$ 62,628
Sentinel Lighting		kW	1,185	\$ 1.7071	\$ 2,024
Street Lighting		kW	109,948	\$ 1.6644	\$ 182,997
<b>Total</b>			<b>2,333,190,508</b>		<b>\$ 30,589,433</b>

<b>Wholesale Market Service</b>		<b>Volume Metric</b>	<b>2016 Forecast (EB-2015-0075)</b>		
<b>Class per Load Forecast</b>					
Residential		kWh	1,699,566,020	\$ 0.0044	\$ 7,478,090
GS<50kW		kWh	614,256,381	\$ 0.0044	\$ 2,702,728
GS>50kW		kW	1,928,133,447	\$ 0.0044	\$ 8,483,787
Large Use (1)		kW	230,310,024	\$ 0.0044	\$ 1,013,364
Large Use (2)		kW	384,189,032	\$ 0.0044	\$ 1,690,432
Unmetered Scattered Load		kWh	11,597,838	\$ 0.0044	\$ 51,030
Sentinel Lighting		kW	434,860	\$ 0.0044	\$ 1,913
Street Lighting		kW	41,103,475	\$ 0.0044	\$ 180,855
<b>Total</b>			<b>4,909,591,075</b>		<b>\$ 21,602,201</b>

<b>Rural Rate Assistance</b>		<b>Volume Metric</b>	<b>2016 Forecast (EB-2015-0075)</b>		
<b>Class per Load Forecast</b>					
Residential		kWh	1,699,566,020	\$ 0.0013	\$ 2,209,436
GS<50kW		kWh	614,256,381	\$ 0.0013	\$ 798,533
GS>50kW		kW	1,928,133,447	\$ 0.0013	\$ 2,506,573
Large Use (1)		kW	230,310,024	\$ 0.0013	\$ 299,403
Large Use (2)		kW	384,189,032	\$ 0.0013	\$ 499,446
Unmetered Scattered Load		kWh	11,597,838	\$ 0.0013	\$ 15,077
Sentinel Lighting		kW	434,860	\$ 0.0013	\$ 565
Street Lighting		kW	41,103,475	\$ 0.0013	\$ 53,435
<b>Total</b>			<b>4,909,591,075</b>		<b>\$ 6,382,468</b>

	<b>2016 Forecast</b>
4705 - Power Purchased	\$ 290,947,660
4707 - Cost of Power Adjustments	\$ 191,524,601
4708 - Charges - WMS	\$ 21,602,201
4714 - Charges - NW	\$ 39,466,000
4716 - Charges - CN	\$ 30,589,433
4730 - Rural Rate Assistance	\$ 6,382,468
4750 - Low Voltage	\$ 310,717
<b>Total</b>	<b>\$ 580,823,081</b>

**Monthly Billing**

3. When is Horizon planning to have monthly billing for all Residential and GS < 50 kW fully implemented?

**Response:**

- 1 Horizon Utilities anticipates implementing monthly billing for all Residential and GS < 50 kW
- 2 customers by December 31, 2016.

### Deferral and Variance Accounts

4. Please confirm that Table 42 from the Application should be shown as follows (change to the highlighted line):

Description	Amount
Group 1 Account Balances as of December 31, 2014	\$7,900,653
Minus 2015 Custom IR Application Disposition (EB-2014-0002)	(\$1,517,288)
Add 2015 Projected Carry Charges	\$109,517
Adjusted Group 1 Account Balances for Disposition	\$9,527,458

### Response:

- 1 Horizon Utilities confirms that Table 42 from the Application should be shown as follows (change  
2 to the highlighted line):

Description	Amount
Group 1 Account Balances as of December 31, 2014	\$7,900,653
Minus 2015 Custom IR Application Disposition (EB-2014-0002)	(\$1,517,288)
Add 2015 Projected Carry Charges	\$109,517
Adjusted Group 1 Account Balances for Disposition	\$9,527,458

## Deferral and Variance Accounts

5. Please explain why some of the billing determinants on the 2016 Deferral and Variance Accounts Workform are different from those found in Table 29 of the Settlement Agreement.

### Response:

The billing determinants in columns E and F of the 2016 Deferral and Variance Accounts Workform are different from those found in Table 29 of the Settlement Agreement for Large Use (1) and Large Use (2) customer count, consumption (kWh) and demand (kW) as a result of the following:

- (i) Subsequent to the Settlement Agreement, a Large Use (1) customer was reclassified to the Large Use (2) customer class (please see Horizon Utilities' response to Technical Conference Question Board Staff-1). The total # of customers and load in the Large Use customer classes did not change; and
- (ii) The 2016 Deferral and Variance Accounts Workform includes the kWh consumption for Wholesale Market Participants for the purposes of allocating DVA Rate Rider 1 as defined on Tab 2, page 49 of the 2016 Annual Filing (EB-2015-0075). The kWh consumption in Table 29 of the Settlement Agreement represents Horizon Utilities' load forecast and therefore excludes the kWh consumption for Wholesale Market Participants.

A reconciliation between Table 29 of the Settlement Agreement and the 2016 Deferral and Variance Accounts Workform is provided in Table 1 below.

**Table 1 – Reconciliation: Table 29 of the Settlement Agreement vs. the 2016 Deferral and Variance Accounts Workform**

	Large Use 1			Large Use 2		
	# customers	kWh	kW	# customers	kWh	kW
Table 29 Settlement Agreement	7	275,125,662	638,647	4	335,708,389	1,921,178
Add/(Subtract) LU(1) classified to LU(2)	(1)	(46,189,257)	(99,986)	1	46,189,257	99,986
Add Wholesale Market Participants (kWh only)	0	39,177,870	0	0	747,835,381	0
2016 DVA WorkForm	6	268,114,275	538,661	5	1,129,733,027	2,021,163

**Proposed Tariff Sheet**

6. The proposed tariff sheet for Street lighting shows the Service Charge being applied 'per connection'. Please explain this change from the previous tariff sheet which shows 'per device'.

**Response:**

- 1 Horizon Utilities identifies that the proposed tariff sheet contains a typographical error. In fact,  
2 the Street Lighting related charge should read 'per device', consistent with the 2015 (i.e., current)  
3 tariff sheet. Horizon Utilities will correct this error in filing the Draft Rate Order.



**Proposed Tariff Sheet**

7. For classes which do not have Wholesale Market Participants, has Horizon considered combining the two Rate Riders for Disposition of Deferral/Variance Accounts (2016) into one to simplify the tariff?

**Response:**

- 1 Horizon Utilities did consider combining the two Rate Riders for Disposition of Deferral/Variance
- 2 Accounts (2016) into one to simplify the tariff for classes which do not have Wholesale Market
- 3 Participants but did not do so. Horizon Utilities agrees with the Board's recommendation to
- 4 combine the two rate riders to simplify the tariff and will do so in the Draft Rate Order.

## Cost of Capital

8. As per the Settlement Agreement, Horizon's long term debt rate for each year is to be established as of January 1<sup>st</sup> of each year and is to be determined based on the weighted average cost of long term debt issued and outstanding for Horizon as of the date of the rate application for that year.
- a) Please confirm that this is how the 3.47% rate shown on Table X of the application was calculated and provide the details.
- b) Why is the long term debt interest rate shown as 4.77% on the 2016 Income Tax/PILs Workform for 2016 Filers?

## Response:

- a) The long term debt rate provided for in the Settlement Agreement is established as of January 1 of each year. It is determined based on the weighted average cost of long term debt issued as of the date of the rate application. The detailed calculations to determine the rate of 3.47% Long-Term Interest Rate can be found in the Custom IR Application (EB-2014-0002) Exhibit 5, Tab 1, Schedule 3, Table 5-2, which is provided below for your reference. There has been no change in the amount of issued debt or interest rates as of the date of the Annual Filing.

**Table 5-2 – Cost of Long-Term Debt**

Promissory Note	Note 1	Note 2	Combined
Issue Date	25-Jul-12	21-Jul-10	
Maturity Date	25-Jul-22	21-Jul-20	
Principal Amount	\$ 150,000,000	\$ 40,000,000	\$ 190,000,000
Interest Rate	3.033%	4.770%	
Issuance Costs			
Agent fees	\$ 600,000	\$ 200,000	
Legal fees	\$ 238,151	\$ 229,015	
Other professional service fees	\$ 17,500	\$ 50,286	
Issuance Costs	\$ 855,651	\$ 479,301	
Amortization Period	10 years	10 years	
Annual Amortization	\$ 85,565	\$ 47,930	
Interest Rate Impact	0.060%	0.120%	
Effective Interest Rate	3.093%	4.890%	3.471%

- 1 b) The long term debt interest rate is shown as 4.77% on the 2016 Income Tax/PILs Workform
- 2 for 2016 Filers as this is the deemed long term interest rate per the Board's cost of capital
- 3 parameters. The OEB calculates an updated long term debt rate annually. The rate at the
- 4 time of filing the Annual Filing was 4.77% which was the rate issued by the Board on
- 5 November 20, 2014 in the cost of capital parameter updates for 2015 applications.

## Cost Allocation Model

9. Please explain why the forecasted kWh and kW on Sheet I6.1 for 2016 are different from those in the Settlement Agreement Table 29.

### Response:

1 The differences between forecasted kWh and kW on Sheet I6.1 for 2016 and the Settlement  
2 Agreement Table 29 are identified in Table 1 below.

3 **Table 1 – kWh and kW Comparison between Settlement Agreement Table 29 and Sheet I6.1**

Class	kWh			kW		
	Table 29 Settlement Agreement EB-2014-0002	2016 Cost Allocation Model	Variance	Table 29 Settlement Agreement EB-2014-0002	2016 Cost Allocation Model	Variance
<b>Large Use</b>	<b>610,834,051</b>	<b>610,834,051</b>	<b>-</b>	<b>2,559,825</b>	<b>2,559,824</b>	<b>(1)</b>
Large Use (1)	275,125,662	228,936,405	(46,189,257)	638,647	538,661	(99,986)
Large Use (2)	335,708,389	381,897,646	46,189,257	1,921,178	2,021,163	99,985
Street Lighting	39,602,538	31,925,431	(7,677,107)	109,948	88,948	(21,000)

5 The difference in Large Use (1) and Large Use (2) kWh and kW is as a result of the reclassification  
6 of a Large Use (1) customer to the Large Use (2) customer class as identified in Horizon Utilities'  
7 response to Technical Conference Question Board Staff-1.

8 The difference in Street Lighting kWh and kW is a result of the City of Hamilton's LED conversion  
9 program as identified Horizon Utilities' 2016 Annual Filing, Tab 2, page 14. Further details on the  
10 derivation of the revised Street Lighting kW and kWh are provided in Horizon Utilities' response to  
11 Technical Conference Question 4.0-VECC-3.

## Cost Allocation Model

10. Please explain why some of the customer #s on Sheet I6.2 for 2016 are different from those in the Settlement Agreement Table 29.

### Response:

1 The differences between the customer #s on Sheet I6.1 for 2016 and the Settlement Agreement  
2 Table 29 are identified in Table 1 below.

3 **Table 1 – Customer # Comparison between Settlement Agreement Table 29 and Sheet I6.2**

Class	# of customers		
	Table 29 Settlement Agreement EB-2014-0002	2016 Cost Allocation Model	Variance
Large Use	11	11	-
Large Use (1)	7	6	(1)
Large Use (2)	4	5	1

4  
5 The difference in the Large Use (1) and Large Use (2) customer count is as a result of the  
6 reclassification of a Large Use (1) customer to the Large Use (2) customer class as identified in  
7 Horizon Utilities' response to Technical Conference Question Board Staff-1.

### Street Lighting Cost Allocation

11. Horizon states that the conversion to LED streetlights results in a demand reduction of 1,600 kW (Tab 2 Page 13).
- a) Please explain how this reduction is being determined, e.g. is it # devices x the delta in demand for each light?
  - b) Please explain how this reductions translates into the 2,198 kW reduction in 1NCP for the street lighting class from the 2016 Cost Allocation model accompanying the Draft Rate order (2014-12-18) and the one filed for the annual update (2105-08-12) ( $9,706 - 7,508 = 2,198$  kW), and the 1,750 kW per month reduction in sales ( $109,948 - 88,948 = 21,000 / 12 = 1,750$  kW). Note number of devices stays constant at 52,356.
  - c) Did the City of Hamilton provide supporting evidence of the reduction in 1,600 kW and/or did Horizon verify the reduction in load per light and the #of lights changed?

### Response:

- 1 a) The reduction of 1,600 kW as provided in the Annual Filing at Tab 2, page 13 was the planned  
2 outcome of the City of Hamilton's Street Lighting LED conversion project, as provided by the  
3 City of Hamilton.  
4  
5 As of September 30, 2015 the City of Hamilton has replaced 10,217 High-pressure sodium  
6 ("HPS) light fixtures with LED fixtures, resulting in a calculated load reduction of 1,615 kW.  
7  
8 The street lighting load is unmetered. The load reduction as a result of the LED conversion  
9 project was calculated by summing the deltas of the wattage of the removed HPS fixture and  
10 the wattage of the installed LED fixture.  
11
- 12 b) Please refer to the answer to Technical Conference Question 4.0-VECC-3(e) for an  
13 explanation of how the demand reduction of 1,600kW translates into the 2,198 kW reduction  
14 in 1NCP for the street lighting class from the 2016 Cost Allocation model  
15  
16 Please refer to the answer to Technical Conference Question 4.0-VECC-3(d) for an  
17 explanation of how the demand reduction of 1,600kW translates into the 1,750kW per month  
18 reduction in sales.  
19
- 20 c) The City of Hamilton provided documentation to support its load reduction. The  
21 documentation was comprised of the manufacturer's documentation for each LED device type  
22 including its wattage rating; and detailed monthly status reports of the completed light  
23 conversions. The monthly reports detailed the locations where the light fixtures were

1 converted, the wattage rating of the removed light fixture, the wattage rating of the installed  
2 LED fixture, and the load reduction achieved during the reporting timeframe.  
3 Horizon Utilities has also engaged an independent service provider to perform sampling  
4 validation of field work changes as part of the verification process.

### **Street Lighting Cost Allocation**

12. As part of the Settlement Agreement on the Custom IR, the load forecast is not to be updated. When Horizon calculated its new S/L rates, were the forecasted sales for S/L of 109,948 kW from the original evidence used or was the updated sales to reflect the decrease in load due to the conversion program, i.e. 88,948 kW used?

#### **Response:**

- 1 Horizon Utilities confirms that the forecast sales for Street Lighting of 109,948 kW from the original
- 2 evidence was used to calculate the new Street Lighting rates.



### Street Lighting Cost Allocation

13. Horizon states that with the changes in the SLAF and the load profile, the Revenue/Cost ratio for Street lighting is 160.09% (Tab 2, page 20) and the proposed is 100% after rate design (Tab 2, page 22). Horizon states that they did not reduce the Street lighting percentage to 120%, as would be the norm, because the revenue to cost ratio for Street lighting had been under 100% previously. Can Horizon explain this reasoning further?

#### Response:

- 1 Horizon Utilities' Street Lighting class, in its first forward test year cost of service application  
2 (2008), had a revenue to cost ratio of 15.6%. As identified in the current Annual Filing, following  
3 the OEB decision in that application, the Board recommended the movement of the revenue to  
4 cost ratio for the Street Lighting class to the bottom of the Board's recommended range. This  
5 was phased in; the revenue to cost ratio moved from 15.6% to 43% and finally to 70%.
- 6 On page 6 in the *Report of the Board, Review of the Board's Cost Allocation Policy for Unmetered*  
7 *Loads* dated December 19, 2013, the Board's policy remains that distributors should endeavor to  
8 move the revenue to cost ratios for those loads closer to one or 100% if this is supported by new  
9 data.
- 10 The cost allocation methodology applicable to the Street Lighting class has been contested and  
11 under review for many years. It was under the previous, contested methodology that Horizon  
12 Utilities' rates for its Street Lighting customers were raised by over 800%. As a result of this  
13 dramatic escalation in the Street Lighting rates, the recent implementation of the Street Light  
14 Adjustment Factor approach to setting rates for the Street Lighting class has produced a revenue  
15 to cost ratio of 160.9%. If the new policy had been in place previously, the Street Lighting ratio  
16 would likely have remained well below 100%. The bottom end of the approved range was  
17 previously 70%.
- 18 In recognition of this rate volatility that has been a direct consequence of the contested  
19 methodology for setting Street Lighting rates, Horizon Utilities is proposing to move the Street  
20 Lighting class to a revenue to cost ratio of 100%.
- 21 Horizon Utilities is aware that normally, if the Cost Allocation model produced a result of 160.09%  
22 as the current Cost Allocation Model shows for the Street Lighting class, the policy would be to  
23 move the Street Lighting class to the top end of the OEB's range. This would result in a revenue  
24 to cost ratio of 100% for the Street Lighting class. Given the unique history of the cost allocation  
25 methodology for the Street Lighting class, Horizon Utilities believes that it is just and reasonable  
26 to move the class to a revenue to cost ratio of 100% at this time, rather than 120% that would  
27 apply in the absence of these unique circumstances.

### **Street Lighting Cost Allocation**

14. Horizon is proposing to update the Street lighting load profile but continue to use the load profiles prepared by Hydro One for the 2006 Cost Allocation Informational Filing for all other classes. In the Decision from EB-2014-0002, in response to Horizon's request to update the Large Users' load profile, the Board said "Updated current hourly use information data for the large use class should not be used. Until more accurate data is available for all classes Horizon must continue to use the existing load profiles for the purpose of its forecast." Please explain why the situation with respect to Street lighting is different from the previous situation with the Large Users?

#### **Response:**

- 1 The Board issued its new Cost Allocation Policy for the Street Lighting rate class on June 12,  
2 2015, and as Horizon Utilities discussed at Tab 2, pages 4-5 of its pre-filed evidence, Horizon  
3 Utilities updated its Street Lighting load profile in conjunction with the adjustments flowing from  
4 the Board's revised cost allocation policy for this class. Horizon Utilities submits that it was  
5 appropriate to adjust the profile at this time because the Board had specifically revised its policies  
6 related to this particular customer class, and because the change in load profile resulted from the  
7 City of Hamilton's LED street lighting conversion program.