

**Ontario Energy  
Board**  
P.O. Box 2319  
27th. Floor  
2300 Yonge Street  
Toronto ON M4P 1E4  
Telephone: 416- 481-1967  
Facsimile: 416- 440-7656  
Toll free: 1-888-632-6273

**Commission de l'énergie  
de l'Ontario**  
C.P. 2319  
27e étage  
2300, rue Yonge  
Toronto ON M4P 1E4  
Téléphone; 416- 481-1967  
Télécopieur: 416- 440-7656  
Numéro sans frais: 1-888-632-6273



**BY E-MAIL**

November 15, 2010

Kirsten Walli  
Board Secretary  
Ontario Energy Board  
2300 Yonge Street, 27<sup>th</sup> Floor  
Toronto ON M4P 1E4

Dear Ms. Walli:

**Re: Guelph Hydro Electric Systems Inc.  
2011 IRM3 Distribution Rate Application  
Board Staff Interrogatories  
Board File No. EB-2010-0130**

In accordance with the Notice of Application and Written Hearing, please find attached Board Staff Interrogatories in the above proceeding. Please forward the following to Guelph Hydro Electric Systems Inc. and to all other registered parties to this proceeding.

In addition please advise Guelph Hydro Electric Systems Inc. that responses to interrogatories are due by November 26, 2010.

Yours truly,

*Original Signed By*

Lawrie Gluck  
Analyst, Applications & Regulatory Audit

Encl.

# Board Staff Interrogatories

## 2011 IRM3 Electricity Distribution Rates Guelph Hydro Electric Systems Inc. ("Guelph Hydro") EB-2010-0130

### Disposition of Group 1 Deferral / Variance Account Balances

#### Board Staff Interrogatory No. 1

Ref: 2011 IRM3 Rate Generator – Sheet J2.4

Sheet "J2.4 – Deferral and Variance Account Disposition" of the 2011 IRM3 Rate Generator is reproduced below.

#### Deferral Variance Account Disposition (2011)

Rate Rider	Def Var Disp 2011
Sunset Date	30/04/2012 DDMMYYYY
Metric Applied To	All Customers
Method of Application	Distinct Volumetric

  

Rate Class	Applied to Class	Fixed Amount	Fixed Metric	Vol Amount	Vol Metric
Residential	Yes	0.000000	Customer - 12 per year	-0.001500	kWh
General Service Less Than 50 kW	Yes	0.000000	Customer - 12 per year	-0.001500	kWh
General Service 50 to 999 kW	Yes	0.000000	Customer - 12 per year	-0.575600	kW
General Service 1,000 to 4,999 kW	Yes	0.000000	Customer - 12 per year	-0.673800	kW
Large Use	Yes	0.000000	Customer - 12 per year	-0.837600	kW
Unmetered Scattered Load	Yes	0.000000	Connection - 12 per year	-0.001500	kWh
Sentinel Lighting	Yes	0.000000	Connection - 12 per year	-0.576100	kW
Street Lighting	Yes	0.000000	Connection - 12 per year	-0.542400	kW

#### Questions / Requests:

- Please confirm that the rate riders entered on Sheet J2.4 were previously approved by the Board as part of Guelph's 2010 IRM Application. If so, Board staff will enter this information on the correct sheet (Sheet J2.3).

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## Board Staff Interrogatory No. 2

Ref: 2011 IRM3 Rate Generator – Sheet J3.31

Sheet “J3.31 – Applied for Rate Rider for Global Adjustment Sub-Account Disposition – Delivery Component 2011” of the 2011 IRM3 Rate Generator is reproduced below.

### Applied For Rate Rider for Global Adjustment Sub-Account Disposition - Delivery Component 2011

Rate Rider	GA Sub-Acct - Delivery 2011
Sunset Date	30/04/2012 DDMMYYYY
Metric Applied To	All Customers
Method of Application	Distinct Volumetric

Rate Class	Applied to Class	Fixed Amount	Fixed Metric	Vol Amount	Vol Metric
Residential	Yes	0.000000	Customer - 12 per year	0.000600	kWh
General Service Less Than 50 kW	Yes	0.000000	Customer - 12 per year	0.000600	kWh
General Service 50 to 999 kW	Yes	0.000000	Customer - 12 per year	0.228000	kW
General Service 1,000 to 4,999 kW	Yes	0.000000	Customer - 12 per year	0.268100	kW
Large Use	Yes	0.000000	Customer - 12 per year	0.333000	kW
Unmetered Scattered Load	Yes	0.000000	Connection - 12 per year	0.000600	kWh
Sentinel Lighting	Yes	0.000000	Connection - 12 per year	0.224300	kW
Street Lighting	Yes	0.000000	Connection - 12 per year	0.215700	kW

### Questions / Requests:

- Please confirm that the rate riders entered on Sheet J3.31 were previously approved by the Board as part of Guelph’s 2010 IRM Application. If so, Board staff will enter this information on the correct sheet (Sheet J3.3).

## Incremental Capital Claim

### Board Staff Interrogatory No. 3

Ref: 2011 IRM3 Rate Generator – Sheet J2.8

Ref: 2011 IRM3 Incremental Capital Workform

Sheet “J2.8 – Incremental Capital Rate Rider” of the 2011 IRM3 Rate Generator is reproduced below.

#### Incremental Capital Rate Rider

Rate Rider	Incremental Capital
Sunset Date	30/04/2012
Metric Applied To	All Customers
Method of Application	Both Distinct

  

Rate Class	Applied to Class	Fixed Amount	Fixed Metric	Vol Amount	Vol Metric
Residential	Yes	0.000000	Customer - 12 per year	0.001600	kWh
General Service Less Than 50 kW	Yes	0.000000	Customer - 12 per year	0.000900	kWh
General Service 50 to 999 kW	Yes	0.000000	Customer - 12 per year	0.184500	kWh
General Service 1,000 to 4,999 kW	Yes	0.000000	Customer - 12 per year	0.102000	kWh
Large Use	Yes	0.000000	Customer - 12 per year	0.100600	kWh
Unmetered Scattered Load	Yes	0.000000	Connection - 12 per year	0.001800	kWh
Sentinel Lighting	Yes	0.000000	Connection - 12 per year	0.616600	kWh
Street Lighting	Yes	0.000000	Connection - 12 per year	0.313100	kWh

#### Questions / Requests:

- Please provide rationale for the proposed sunset date.
- Please provide rationale for recovering the requested incremental capital through a variable rate rider.

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## Board Staff Interrogatory No. 4

Ref: 2011 IRM3 Incremental Capital Workform – Sheet B1.4

Sheet “B1.4 – Detailed Re-Based Revenue from Rates” of the 2011 IRM3 Incremental Capital Workform is reproduced below.

### Detailed Re-Based Revenue From Rates

Last COS Re-based Year	2008
Last COS OEB Application Number	EB-2007-0742

  

Applicants Rate Base		Last Rate Re-based Amount	
Average Net Fixed Assets			
Gross Fixed Assets - Re-based Opening	\$ 123,637,713	A	
Add: CWIP Re-based Opening	\$ -	B	
Re-based Capital Additions	\$ 7,298,949	C	
Re-based Capital Disposals	-\$ 995,146	D	
Re-based Capital Retirements	\$ -	E	
Deduct: CWIP Re-based Closing	\$ -	F	
Gross Fixed Assets - Re-based Closing	\$ 129,941,516	G	
Average Gross Fixed Assets		\$ 126,789,615	H = (A + G) / 2
Accumulated Depreciation - Re-based Opening	\$ 37,841,267	I	
Re-based Depreciation Expense	\$ 5,984,160	J	
Re-based Disposals	-\$ 552,335	K	
Re-based Retirements	\$ -	L	
Accumulated Depreciation - Re-based Closing	\$ 43,273,092	M	
Average Accumulated Depreciation		\$ 40,557,180	N = (I + M) / 2
Average Net Fixed Assets		\$ 86,232,435	O = H - N
Working Capital Allowance			
Working Capital Allowance Base	\$ 125,742,305	P	
Working Capital Allowance Rate	15.0%	Q	
Working Capital Allowance		\$ 18,861,346	R = P * Q
Rate Base		\$ 105,093,781	S = O + R
Return on Rate Base			
Deemed ShortTerm Debt %	4.00%	T	\$ 4,203,751
Deemed Long Term Debt %	49.30%	U	\$ 51,811,234
Deemed Equity %	46.70%	V	\$ 49,078,796
Short Term Interest	4.47%	Z	\$ 187,908
Long Term Interest	6.10%	AA	\$ 3,160,485
Return on Equity	8.57%	AB	\$ 4,206,053
Return on Rate Base		\$ 7,554,446	AC = W * Z AD = X * AA AE = Y * AB AF = AC + AD + AE
Distribution Expenses			
OM&A Expenses	\$ 9,325,109	AG	
Amortization	\$ 5,637,037	AH	
Ontario Capital Tax (F1.1 2-Factor Tax Changes)	\$ 239,079	AI	
Grossed Up PILS (F1.1 2-Factor Tax Changes)	\$ 1,971,258	AJ	
Low Voltage	\$ 92,676	AK	
Transformer Allowance	\$ 319,608	AL	
	\$ -	AM	
	\$ -	AN	
	\$ -	AO	
		\$ 17,584,967	AP = SUM ( AG : AO )
Revenue Offsets			
Specific Service Charges	-\$ 248,600	AQ	
Late Payment Charges	-\$ 100,000	AR	
Other Distribution Income	-\$ 125,213	AS	
Other Income and Deductions	-\$ 1,391,500	AT	
		\$ 1,865,313	AU = SUM ( AQ : AT )
Revenue Requirement from Distribution Rates		\$ 23,274,100	AV = AF + AP + AU
Rate Classes Revenue			
Rate Classes Revenue - Total (B1.1 Re-based Revenue - Gen)		\$ 23,184,299	AW

### Preamble:

Board staff has been unable to verify whether some of the data entered on Sheet B1.4 of the 2011 IRM3 Incremental Capital Workform is correct.

### Questions / Requests:

- Please reconcile the data entered on the above sheet with the Draft Rate Order in EB-2007-0742. Please explain any discrepancies.

### **Board Staff Interrogatory No. 5**

Ref: 2011 IRM3 Incremental Capital Project Worksheet – Sheet 1

Ref: Incremental Capital Project Evidence – Appendix 5.2 – Page 27

#### Questions / Requests:

- a) Please provide more detailed descriptions in the Column titled, “Asset Component” in order to allow Board staff to reconcile the data with the Budget Summary included as the last page of Appendix 5.2.

### **Board Staff Interrogatory No. 6**

Ref: Supplemental Report of the Board on 3<sup>rd</sup> Generation Incentive Regulation for Ontario’s Electricity Distributors (EB-2007-0673) – Appendix B – Amended Filing Guidelines

#### Preamble:

Guelph has not fulfilled all the filing requirements included as Appendix B to the Supplemental Report of the Board on 3<sup>rd</sup> Generation Incentive Regulation for Ontario’s Electricity Distributors (EB-2007-0673).

#### Questions / Requests:

- a) Please indicate whether continued expenditure levels could trigger another Incremental Capital Request before the end of the IR term.
- b) Please provide a description of the actions that the distributor will take in the event that the Board does not approve the Incremental Capital Request.

## Board Staff Interrogatory No. 7

### Station Loading

Ref: Appendix 5.2, page 1

#### Preamble:

Guelph Hydro indicates that it is necessary to build a new Municipal Transformer Station ("MTS") to address future load which the current distribution system will not support. Hanlon TS appears to be the primary TS in the area which would have to absorb this demand growth.

#### Questions / Requests:

- a) Given the current system capacity, what actions have generally been taken by Hydro One to address overloading events at Hanlon TS? Has Guelph experienced significant or lasting service interruptions as a result?
- b) What is the Ten Day LTR<sup>1</sup> of Hanlon TS? What is the current best practice feeder loading protocol (in Amps) for the feeders running into/out of Hanlon TS as defined by Hydro One Distribution and/or Guelph?
- c) Please provide a table showing the maximum feeder loading (in Amps) that has been experienced on each Hanlon TS feeder from 2007 through 2010.
- d) Please provide a table of Hanlon TS peak MW loading for each year from 2007-2010, and highlight any events when a feeder was at / exceeding:
  - a. Best practice loading. Note any exceptional circumstances directly associated with each event.
  - b. Amp or MW capacity. Note any exceptional circumstances directly associated with each event.

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<sup>1</sup> 10-day long term emergency rating in MW.

## **Board Staff Interrogatory No. 8**

### **New Connections and Demand**

Ref: Appendix 5.2, page 6  
Ref: Appendix 5.2, page 20

#### Preamble:

Guelph states at Appendix 5.2 – Page 6 that one industrial customer is/was expected to increase their demand by 4,000 kW.

Guelph has indicated at Appendix 5.2 – Page 20 that it has commitments with existing and new customers for additional connections in 2011.

#### Questions / Requests:

- a) Please indicate the time frame associated with the proposed 4,000 kW demand increase.
- b) Please provide a list of the connection commitments noted by Guelph along with the forecasted load associated with these commitments. Provide customer names alphanumerically if necessary.<sup>2</sup>

## **Board Staff Interrogatory No. 9**

### **Load Forecasting**

Ref: Appendix 5.2, page 22-25

#### Preamble:

Guelph has provided three tables detailing system loading at page 22-24 and a graph, Guelph South Load Forecast, at page 25.

#### Questions / Requests:

- a) Please indicate whether the load forecast methodology used by Guelph is consistent with the most recent load forecast methodology approved by the Board.

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<sup>2</sup> Standard practice to preserve confidentiality of customers and their associated demand.



- b) Please provide a comparison of Guelph's most recent Board approved load forecast, against the forecast presented in this application. Please comment on any significant demand removals and/or additions captured in these tables.
- c) Guelph provides as an estimate a growth rate envelope from 1.1% to 2.6% per year. What was the growth rate applied to Guelph's Board approved load forecast in its most recent rate proceeding?

## **Board Staff Interrogatory No. 10**

### **Risk of Equipment Failure and Costs**

Ref: Appendix 5.2, page 18

#### Preamble:

Guelph notes its high-level estimates of operating and maintenance expenses for MTS #1 at page 18 of Appendix 5.2.

#### Questions/Requests:

- a) Are there any financial risks associated with Guelph owning transformation assets under its proposed MTS#1 plan? For instance, what are the typical costs associated with:
  - Replacement of failed transformer
  - Replacement of a failed breaker
  - Replacement of any other piece of significant equipment
- b) Does Guelph have a proposed plan to mitigate these risks through contract terms or any other mechanisms?
- c) Is Guelph aware that Hydro One has a significant "spares" inventory which Hydro One uses to address unexpected failures in its asset base? Has Guelph explored arrangements to have access to Hydro One's spares inventory in the event of a significant equipment failure and has Guelph identified the costs or any delays that could be associated with such an acquisition?

## **Board Staff Interrogatory No. 11**

### **Station and Feeder Costs**

Ref: Appendix 5.2, page 18 and 21

#### Questions / Requests:

- a) What is the source of the \$400,000 contribution in “related capital” cited at page 21 and how was the level of funding determined or otherwise negotiated?  
Please explain.

## **Board Staff Interrogatory No. 12**

### **Transmission Facility**

Ref: Appendix 5.3, Page17 - 19

#### Preamble:

The new municipal transformer station proposed by Guelph will link to 150 kV lines operated by Hydro One Networks Transmission System. As a result, the transformer station will provide transformation connection service, meaning that Guelph would be considered to be operating as a transmitter under the *Transmission System Code*. Guelph does not have a transmission licence to own or operate transmission facilities.

#### Questions / Requests:

- a) Does Guelph intend to request that the Board deem the new transformer station a distribution asset?
- b) If the answer to part (a) is yes, please provide an outline of Guelph's timeline and plan to obtain the necessary approvals to operate this asset in a manner that is compliant with its distribution licence and the *Transmission System Code*.
- c) If the answer to part (a) is no, please explain how Guelph intends to be compliant with the conditions of its licence once the transformer station is in-service.

### **Board Staff Interrogatory No. 13**

#### **Capital Spending**

Ref: Appendix 5.2 – Page 27

#### Preamble:

On Page 27 of appendix 5.2, Guelph has presented the Capital Spending for 2009, 2010 and 2011 related to the MTS.

#### Questions / Requests:

- a) Please confirm that none of the capital costs have previously been included in rate base.
- b) Please confirm that none of the projects included in the 2011 Capital Budget are discretionary in nature.

### **Board Staff Interrogatory No. 14**

Ref: Manager's Summary - General

#### Preamble:

Guelph has not included a Request for Proposal related to the proposed Transformer Station in Guelph in the Application.

#### Questions / Requests:

- a) Was a Request for Proposal issued? If so, please file it with the Board.
- b) Please summarize all the proposals received by Guelph Hydro.
- c) Please highlight the proposal that was selected by Guelph Hydro.
- d) Please provide the criteria and weightings Guelph Hydro utilized in selecting a service provider.

Please ensure that enough information is provided in response to the above questions in order to allow Board staff to evaluate the prudence of the selection made by Guelph Hydro. Please provide the requested information in such a manner as to avoid the need for filing the information confidentially.

## Tax Changes

### Board Staff Interrogatory No. 15

Ref: 2011 IRM3 Shared Tax Savings Workform – Sheet B1.1

Ref: 2011 IRM3 Incremental Capital Workform – Sheet B1.3

Sheet “B1.1 – Rate Class and Re-based Billing Determinants & Rates” of the 2011 IRM3 Shared Tax Savings Workform is reproduced below.

Rate Class and Re-Based Billing Determinants & Rates

Last COS Re-based Year				2008					
Last COS OEB Application Number				EB-2007-0742					
Rate Group	Rate Class	Fixed Metric	Vol Metric	Re-based Billed Customers or Connections A	Re-based Billed kWh B	Re-based Billed kW C	Rate ReBal Base Service Charge D	Rate ReBal Base Distribution Volumetric Rate kWh E	Rate ReBal Base Distribution Volumetric Rate kW F
RES	Residential	Customer	kWh	44,220	357,871,626		13.39	0.0164	
OSL150	General Service Less Than 50 kW	Customer	kWh	3,612	146,156,347		12.24	0.0156	
OSL750	General Service 50 to 999 kW	Customer	kWh	515	0	1,023,682	230.26		2.76
OSL1500	General Service 1,000 to 4,999 kW	Customer	kWh	37	0	864,467	616.96		1.97
LU	Large Use	Customer	kWh	4	0	471,742	905.99		2.17
USL	Unmetered Scattered Load	Connection	kWh	591	2,336,603		5.47	0.0250	
Sent	Sentinel Lighting	Connection	kWh	30	0	352	6.52		7.20
SL	Street Lighting	Connection	kWh	13,670	0	25,194	0.23		5.54
NA	Rate Class 9	NA	NA						
NA	Rate Class 10	NA	NA						
NA	Rate Class 11	NA	NA						
NA	Rate Class 12	NA	NA						
NA	Rate Class 13	NA	NA						
NA	Rate Class 14	NA	NA						
NA	Rate Class 15	NA	NA						
NA	Rate Class 16	NA	NA						
NA	Rate Class 17	NA	NA						
NA	Rate Class 18	NA	NA						
NA	Rate Class 19	NA	NA						
NA	Rate Class 20	NA	NA						
NA	Rate Class 21	NA	NA						
NA	Rate Class 22	NA	NA						
NA	Rate Class 23	NA	NA						
NA	Rate Class 24	NA	NA						
NA	Rate Class 25	NA	NA						

Sheet “B1.3 – Calculated Re-Based Revenue from Rates” of the 2011 IRM3 Incremental Capital Workform is reproduced below.

Calculated Re-Based Revenue From Rates

Last COS Re-based Year				2008							
Last COS OEB Application Number				EB-2007-0742							
	Rate Class	Re-based Billed Customers or Connections A	Re-based Billed kWh B	Re-based Billed kW C	Re-based Base Service Charge D	Re-based Base Distribution Volumetric Rate kWh E	Re-based Base Distribution Volumetric Rate kW F	Service Charge Revenue G = A * D * 12	Distribution Rate Revenue kWh H = B * E	Distribution Volumetric Rate Revenue kW I = C * F	Revenue Requirement from Rates J = G + H + I
	Residential	44,220	357,871,626	0	13.27	0.0163	0.0000	7,041,593	5,833,308	0	12,874,900
	General Service Less Than 50 kW	3,612	146,156,347	0	12.26	0.0157	0.0000	531,397	2,294,655	0	2,826,052
	General Service 50 to 999 kW	515	0	1,023,682	230.36	0.0000	2.7620	1,423,626	0	2,827,410	4,251,034
	General Service 1,000 to 4,999 kW	37	0	864,467	613.29	0.0000	1.9595	272,301	0	1,693,923	1,966,224
	Large Use	4	0	471,742	897.69	0.0000	2.1526	43,089	0	1,015,472	1,058,561
	Unmetered Scattered Load	591	2,336,603	0	5.42	0.0248	0.0000	38,439	57,948	0	96,388
	Sentinel Lighting	30	0	352	6.46	0.0000	7.1400	2,326	0	2,513	4,839
	Street Lighting	13,670	0	25,194	0.14	0.0000	3.3078	22,966	0	83,337	106,302
								9,375,735	8,185,910	5,622,655	23,184,299

## Questions / Requests:

- Please explain the discrepancies between the rates (Columns D / E / F) recorded on Sheet B1.1 of the 2011 IRM3 Shared Tax Savings Workform and those

shown on Sheet B1.3 of the 2011 IRM3 Incremental Capital Workform. If there are errors, please advise and Board staff will make the relevant corrections.

## Retail Transmission Service Rates

### Board Staff Interrogatory No. 16

Ref: 2011 IRM3 RTSR Workform – Sheet B1.2

Sheet “B1.2 – 2009 Distributor Billing Determinants” of the 2011 IRM3 RTSR Workform is reproduced below.

#### 2009 Distributor Billing Determinants

Enter the most recently reported RRR billing determinants

Loss Adjusted Metered kWh **Yes**  
Loss Adjusted Metered kW **No**

Rate Class	Vol Metric	Metered kWh A	Metered kW B	Applicable Loss Factor C	Load Factor D = A / (B * 730)	Loss Adjusted Billed kWh E = A * C
Residential	kWh	352,708,669	0	1.0404		366,958,099
General Service Less Than 50 kW	kWh	141,492,398	0	1.0404		147,208,690
General Service 50 to 999 kW	kW	45,970,715	876,009	1.0404	7.19%	47,827,932
General Service 50 to 999 kW - Interval Metered	kW	322,824,642	124,745	1.0404	354.70%	335,866,758
General Service 1,000 to 4,999 kW	kW	373,602,975	893,555	1.0404	57.29%	388,592,495
Large Use	kW	237,183,984	439,421	1.0404	73.98%	246,766,217
Unmetered Scattered Load	kWh	2,424,418	0	1.0404		2,522,364
Sentinel Lighting	kW	101,502	275	1.0404	50.62%	105,602
Street Lighting	kW	9,321,265	26,052	1.0404	49.04%	9,697,844
Total		1,485,530,567	2,360,056			1,545,546,002

#### Questions / Requests:

- Please confirm that the data entered in Column A (metered kWh) is metered data (i.e. no loss factor applied). If a loss factor has been applied to the data in Column A, please re-file the data for Column A and Board staff will make the relevant corrections to the RTSR Workform.

## **Smart Meter Adder**

### **Board Staff Interrogatory No. 17**

Ref: Smart Meter Rate Adder Calculation Model - General

#### Questions / Requests:

- a) Please provide the total number of smart meters installed in the service area at the end of October 2010 for each the residential rate class and the GS > 50kW rate class.
- b) If necessary, please provide an update to Sheet 2 of the Smart Meter Adder Workform which more accurately reflects Guelph's progress towards smart meter deployment.

### **Board Staff Interrogatory No. 18**

Ref: Smart Meter Rate Adder Calculation Model – Sheet 8

#### Questions / Requests:

- a) Please provide the September 13, 2010 Load Forecast cited on Sheet 8 of the Smart Meter Rate Adder Calculation Model.

### **Board Staff Interrogatory No. 19**

Ref: Manager's Summary – Page 29

Ref: 2011 IRM3 Smart Meter Rate Calculation Model – Sheet 2

#### Preamble:

On page 29 of the Manager's Summary, Guelph Hydro states "Guelph Hydro's smart meters and associated back-office systems meet the minimum specifications set out by O. Reg. 425/06. The meters exceed the specification in one specific area with respect to the inclusion of a communications chip based on the Zigbee standard. This communication chip will enable Guelph Hydro, through the smart meter, to communicate with in home devices such as displays, thermostats, and Zigbee equipped smart appliances.

....

Guelph Hydro believed that it was prudent to include the communication chip in the smart meters on the basis that the incremental cost to do so was minor (\$12.25/meter) in comparison to the alternative of having to replace large volumes of meters before their end of useful life (15 years). In addition, Guelph Hydro believes that substantial customer and electric system benefits would be missed if the chip was not included.”

Questions / Requests:

- a) Please confirm which line item on Sheet 2 of the Smart Meter Rate Calculation Model is related to the communication chip cited in the preamble.
- b) Please explain the statement cited above regarding the alternative to the inclusion of the communication chip being the replacement of large volumes of meters before their end of useful life.