

**Hydro One Brampton Networks Inc.**

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November 7, 2008

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
PO Box 2319  
2300 Yonge Street, 27<sup>th</sup> Floor  
Toronto ON M4P 1E4

Dear Ms. Walli,

**Re: Hydro One Brampton Networks Inc.'s 2009 Electricity Distribution Rate Application;  
EB-2008-0186**

Hydro One Brampton Networks Inc. ("Hydro One Brampton") is pleased to file its 2009 Electricity Distribution Rate Application with the Ontario Energy Board ("the Board").

Hydro One Brampton is applying to the Board for rate adjustments to all distribution rates in accordance with the 2009 Incentive Regulation Mechanism ("IRM"). Hydro One Brampton utilized the standard 2009 IRM Model Spreadsheet as provided by the Board as the sole mechanism used to adjust the 2009 distribution rates.

Please find attached to this cover letter two (2) hard copies of Hydro One Brampton's 2009 Electricity Distribution Rate Application and all supporting materials.

We would be pleased to provide any additional information that the Board requires in the processing of these documents. If additional information is required, please contact the undersigned.

Sincerely,

Scott Miller  
Manager of Regulatory Affairs  
Hydro One Brampton Networks Inc.  
(905) 452-5504  
[smiller@hydroonebrampton.com](mailto:smiller@hydroonebrampton.com)

Roger A. Albert, President & CEO, Hydro One Brampton Networks Inc.  
Jamie Gribbon, Vice-President Finance and Administration, Hydro One Brampton Networks Inc.

Enc.

**Hydro One Brampton Networks Inc.**

**2009 Distribution Rate Adjustments**

**ED-2003-0038**

**EB-2005-0377/EB-2008-0186**

**Summary of Application**

**November 7, 2008**



1 Generation Incentive Regulation Mechanism (“2<sup>nd</sup> Generation IRM”). This increase is  
2 made up of the following components:

- 3       ▪ The preliminary GDP-IPI price escalator factor of 2.1%;
- 4       ▪ Productivity Gain (X-Factor) of (1.0%);
- 5       ▪ K-Factor Derivation of (0.4%)
- 6       ▪ Federal Tax Rate Adjustment (0.4%)

7  
8 As noted in tab F1.1 of the 2009 2<sup>nd</sup> Generation IRM model provided by the Board, Hydro  
9 One Brampton expects the aforementioned rates to be finalized by the Board when the  
10 GDP-IPI price escalator is finalized by the Board in March 2009.

### 11 12 **1. Federal Tax Rate Adjustment**

13  
14 Effective January 1, 2009, Federal Corporate Income Tax rates are expected to decrease to  
15 19.0%, a decrease of (0.5%). As a result, overall Corporate Tax Rates will decrease to  
16 33.0% from 33.5%. The resulting decrease in distribution rates, calculated using the  
17 Board's 2<sup>nd</sup> Generation IRM model is (0.4%).

### 18 19 **2. Smart Meter Funding Adder**

20  
21 On April 12, 2007 the Board released the Decision approving Hydro One Brampton's  
22 2007 distribution rates (EB-2007-0541, attached), effective May 1, 2007. Hydro One  
23 Brampton's utility specific Smart Meter rate rider was approved at \$0.67 per month per  
24 customer consistent with the revenue requirement identified in the Smart Meter  
25 Investment Plan.

26  
27 On August 8<sup>th</sup>, 2007, the Board released its Decisions with Reasons (EB-2007-0063,  
28 attached) pertaining to the Combined Proceeding associated with smart metering  
29 installations. Hydro One Brampton used the methodology from Appendix E of this  
30 decision to calculate the revenue requirement associated with the return required for smart

1 meter installations from January 1<sup>st</sup>, 2006 to May 31<sup>st</sup>, 2007, which was used to identify a  
2 permanent rate adder of \$0.12 per month per customer to recover the revenue requirement  
3 associated with the Smart Metering program. This \$0.12 adder was approved by the Board  
4 in its March 19, 2008 Decision approving Hydro One Brampton's 2008 rates.

5  
6 On October 22, 2008 the Board released Guideline G-2008-0002 "Smart Meter Funding  
7 and Cost Recovery" which provides updated guidelines for cost recovery of activities  
8 associated with Smart Metering initiatives. In the guideline, the Board notes that  
9 distributors who wish to apply for cost recovery during a Non-Cost of Service Proceeding  
10 must meet certain criteria, including:

- 11
- 12 • A requirement that the distributor meet a threshold of 50% penetration of Smart  
13 Meters within its service area; and
  - 14 • All cost information be based on audited financial information, including deferral  
15 account balances related to Smart Metering.
- 16

17 The guideline further identified the ability for distributors who are currently implementing  
18 Smart Meter programs, but have not met the criteria mentioned above to request a  
19 standard \$1.00 Funding Adder, which shall be valid until a Cost of Service Proceeding is  
20 held, or the threshold 50% penetration rate is achieved.

21  
22 As a named utility under Ontario Regulation 427/06, specifically authorized to pursue  
23 Smart Metering activities, Hydro One Brampton notes that at the time of this filing  
24 approximately 75,000 Smart Meters have been installed in its service territory,  
25 representing approximately 58% of approximately 135,000 Smart meters expected to be  
26 installed, as outlined in Hydro One Brampton's Smart Meter Investment Plan. However,  
27 the most recent audited financial information includes only approximately 36,000 or 27%  
28 penetration of Smart Meters within the service territory. Hydro One Brampton further  
29 notes that it currently intends to submit a full Cost of Service rate application in August  
30 2009 for the 2010 rate year which is expected to include audited financial costs of its

1 Smart Meter Implementation Program as at December 31, 2008. Until such time as Smart  
2 Meter costs are reviewed as part of its full Cost of Service application, Hydro One  
3 Brampton is requesting to implement the \$1.00 funding adder in place of the previously  
4 approved \$0.67 rate rider (EB-2007-0541, attached). The funding adder is in addition to  
5 the \$0.12 permanent rate adder previously approved by the Board.

### 6 7 **3. Comments Pertaining to the 1% Productivity Gain (X-Factor)**

8  
9 On March 20 2008, the Board released for comment a report by Board staff's consultant,  
10 Pacific Economics Group ("PEG"), on a methodology for comparing electricity distributor  
11 costs (the "PEG Report"). This report examines a series of statistical information on the  
12 various Local Distribution Company's ("LDC's") in Ontario. As per the report:

13 *"Statistics can be used to calculate benchmarks and draw conclusions about operating*  
14 *efficiency from benchmark comparisons."*

15  
16 On Page 58 of the report, there is a section titled "Comparing Performance Ratings". This  
17 section states:

18 *"In Table 6, we provide overall rankings for the companies that are based on the peer*  
19 *group comparisons. These rankings are comparable to those that result from the*  
20 *econometric models. Inspecting the results, it can be seen that the rankings from the*  
21 *indexing and econometric work suggests that they are broadly similar. **For example,***  
22 ***Hydro One Brampton has a high performance ranking using all of the methods."***

23  
24 On March 20 2008, the Board released for comment an updated report by PEG entitled  
25 "Benchmarking the Costs of Power Distributors". On page 55 of the report, in a section  
26 titled "Econometric Cost Benchmarking Results", the following comment is noted:

27 *"Eighteen distributors were found to be significantly superior, including three of*  
28 *the larger companies: Hydro One Networks, **Hydro One Brampton,**..."*

29

1 Hydro One Brampton has been very proactive in maximizing the opportunities for  
2 efficiencies in its operations. Since market opening, operating and administrative costs  
3 have decreased by 17%; from \$156 per customer in 2002 to \$129 per customer in 2007.  
4 We submit that many of these efficiencies were in place in 2004, the base year for the  
5 current rates. Hydro One Brampton's operating costs, on a per customer basis, are  
6 considerably lower than the industry average. This is also recognized in the PEG report.

7  
8 The 2<sup>nd</sup> Generation IRM model calls for a further efficiency improvement of 1% of base  
9 revenue requirement. While Hydro One Brampton submits this application with the  
10 efficiency reduction to the revenue requirement, we believe it is important to consider the  
11 improvements that have already been realized and to recognize that all distributors may  
12 not have the same level of prospective efficiencies.

#### 13 14 **4. Uniform Transmission Rates**

15  
16 On March 19, 2008, the Board approved Hydro One Brampton's application for  
17 Transmission rates effective May 1<sup>st</sup> 2008 in Decision EB-2007-0882 (attached). On  
18 October 22, 2008, the Board issued G-2008-0001 guideline, setting new Uniform  
19 Transmission Rates for Ontario transmitters, effective January 1, 2009.

20  
21 Hydro One Brampton is proposing adjustments to its currently approved distribution retail  
22 transmission services rates. The adjustments will impact Hydro One Brampton's current  
23 retail Network Service Rates and Line and Transformation Connection Service Rates,  
24 increasing by 11.3% and 6.1% of the current approved rates, respectively.

25  
26 Hydro One Brampton has calculated the changes to its retail transmission rates in  
27 proportion to the changes in the Ontario Uniform Transmission Rates (UTRs) as issued in  
28 guideline G-2008-0001. Please note that the proposed retail transmission service rates do  
29 not reflect any disposition of associated variance account balances.

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*Retail Network Service Rates*

Hydro One Brampton's current Ontario Energy Board approved retail Transmission Network Rates will change in the same proportions as the new Ontario Uniform Transmission Rates changed from the previous rates.

Hydro One Brampton's current retail Network Service Rates are based on the previous Network UTR of \$2.31 per kW. As per guideline G-2008-0001, the Network UTR will change to \$2.57 per kW as of January 1, 2009. The Network UTR change will impact Hydro One Brampton's current retail Network Service Rates for all customer classes by an increase of 11.3%. Refer to Tab L1.1 Curr&Appl for TX Network for a summary of rate impacts.

*Retail Line & Transformation Connection Service Rates*

Hydro One Brampton's current Line & Transformation Connection Service Rates recover the transmission charges for both Line Connection and Transformation Connection UTRs.

*Line Connection Service Rates*

As with Hydro One Brampton's Network Service Rates, the Line Connection Service Rate portion of the Line Connection and Transformation Connection Service Rates will change in the same proportion as the ratio of the old Line Connection Rates to the new Line Connection Rates.

Hydro One Brampton's current retail Line Connection Rates are based on the previous Line Connection UTR of \$0.59 per kW. As per the above noted guideline, this rate will



1 change to \$0.70 per kW. This rate change will impact Hydro One Brampton's current  
2 retail Line Connection Service Rate portion of the Line Connection and Transformation  
3 Connection Service Rates in the same proportion.

4 *Transformation Connection Service Rates*

5  
6 Hydro One Brampton is currently supplied by four (4) transformer stations. Hydro One  
7 Brampton owns one of these stations, Jim Yarrow TS.

8  
9 Assets associated with Jim Yarrow TS are currently included in Hydro One Brampton's  
10 rate base and thus, cost and revenue recovery is achieved through Hydro One Brampton's  
11 revenue requirement. Hydro One Brampton's customers are not subject to  
12 Transformation Connection UTR charges associated with the power supplied from this  
13 station. Therefore, in determining the retail Line & Transformation Connection Service  
14 Rates, the increase in the Transformation Connection UTR will only apply to the power  
15 delivered by non-Hydro One Brampton stations.

16  
17 Since not all of the power consumed by Hydro One Brampton's customers is subject to  
18 Transformation Connection Service Rate charges, this application will apply the same  
19 adjustment factor as provided in the Board's G-2008-0001 guideline associated with the  
20 change in Transmission Connection rates to the retail Transmission rates associated with  
21 the power delivered via non-Hydro One Brampton transformer stations.

22  
23 As mentioned above, Hydro One Brampton's retail Line Connection and Transformation  
24 Connection Service Rates are comprised of both Line Connection Service Rates and Line  
25 Transformation Connection Service Rates. The overall adjustment factor to Hydro One  
26 Brampton's retail Line & Transformation Connection Service Rates will be in direct  
27 proportion to the UTR changes within the Board's G-2008-0001 guideline, and will be the  
28 product of the weighted average components of the Line Connection UTR and the  
29 Transformation Connection UTR associated with the non-Hydro One Brampton  
30 transformer stations.

1  
2 Based on historical consumption patterns and UTR changes the retail Line &  
3 Transformation Connection Service Rates for all customer classes will increase by 6.1%  
4 compared to currently approved rates. Refer to L2.1 Curr&Appl for TX Connect for a  
5 summary of the rate impacts.

6  
7 **5. Schedule of Rates**

8  
9 Table 1 provides a schedule of rates that were determined based on the 2009 IRM Model  
10 Spreadsheet. Please note that the rates are based on the assumptions included in the 2009  
11 2<sup>nd</sup> Generation IRM model, which currently identifies a GDP-IPI price adjustment of  
12 2.1%. As previously mentioned, this GDP-IPI factor is expected to be updated by the  
13 Board in March, 2009. It is anticipated that Hydro One Brampton's 2009 rate schedule  
14 will be updated to reflect the revised GDP-IPI inflation factor prior to implementation of  
15 new rates on May 1, 2009.

16  
17 Table 2 identifies the Specific Service Charges and Loss Factors. These rates and loss  
18 factors have not changed from the approved values associated with our current Schedule of  
19 Rates.

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**TABLE 1: SCHEDULE OF NEW RATES**

**Residential**

Service Charge	\$	11.81
Distribution Volumetric Rate	\$/kWh	0.0157
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0053
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0048
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**General Service Less Than 50 kW**

Service Charge	\$	21.68
Distribution Volumetric Rate	\$/kWh	0.0182
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0048
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0042
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**General Service 50 to 699 kW**

Service Charge	\$	104.74
Distribution Volumetric Rate	\$/kW	2.3401
Retail Transmission Rate – Network Service Rate	\$/kW	1.8432
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.6134
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**General Service 700 to 4,999 kW**

Service Charge	\$	1,440.10
Distribution Volumetric Rate	\$/kW	3.8114
Retail Transmission Rate – Network Service Rate	\$/kW	2.0671
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.7343
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**SCHEDULE OF NEW RATES CONTINUED...**

**Large Use**

Service Charge	\$	4,819.23
Distribution Volumetric Rate	\$/kW	2.9612
Retail Transmission Rate – Network Service Rate	\$/kW	2.3395
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	2.0046
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**Unmetered Scattered Load**

Service Charge	\$	20.56
Distribution Volumetric Rate	\$/kWh	0.0182
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0048
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0042
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**Sentinel Lighting**

Distribution Volumetric Rate	\$/kW	3.8760
Retail Transmission Rate – Network Service Rate	\$/kW	1.5367
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.3449
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**Street Lighting**

Distribution Volumetric Rate	\$/kW	2.2494
Retail Transmission Rate – Network Service Rate	\$/kW	1.5347
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.3432
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**Standby Power - APPROVED ON AN INTERIM BASIS**

Distribution Volumetric Rate	\$/kW	1.5276
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**Embedded Distributor**

Distribution Volumetric Rate	\$/kW	0.0621
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- 3

1

**TABLE 2: SPECIFIC SERVICE CHARGES**

**Customer Administration**

Arrears certificate	\$	15.00
Pulling post dated cheques	\$	15.00
Duplicate invoices for previous billing	\$	15.00
Request for other billing information	\$	15.00
Easement letter	\$	15.00
Income tax letter	\$	15.00
Account history	\$	15.00
Credit reference/credit check (plus credit agency costs)	\$	15.00
Returned cheque charge (plus bank charges)	\$	15.00
Legal letter charge	\$	15.00

**SPECIFIC SERVICE CHARGES CONTINUED...**

Account set up charge/change of occupancy charge (plus credit agency costs if applicable)	\$	30.00
Special meter reads	\$	30.00

**Non-Payment of Account**

Late Payment - per month	%	1.50
Late Payment - per annum	%	19.56
Collection of account charge - no disconnection	\$	30.00
Disconnect/Reconnect at meter - during regular hours	\$	65.00
Disconnect/Reconnect at meter - after regular hours	\$	185.00
Disconnect/Reconnect at pole - during regular hours	\$	185.00
Disconnect/Reconnect at pole - after regular hours	\$	415.00
Disconnect/Reconnect for >300 volts - during regular hours	\$	60.00
Disconnect/Reconnect for >300 volts - after regular hours	\$	155.00
Specific Charge for Access to the Power Poles \$/pole/year	\$	22.35
Special Billing Service (aggregation)	\$	125.00
Special Billing Service (sub-metering charge per meter)	\$	25.00
Owner Requested Disconnect/Reconnect - during regular hours	\$	120.00
Owner Requested Disconnect/Reconnect - after regular hours	\$	155.00

**Allowances**

Transformer Allowance for Ownership - per kW of billing demand/month	\$/kW	(0.60)
Primary Metering Allowance for transformer losses – applied to measured demand and energy	%	(1.00)

**LOSS FACTORS**

Total Loss Factor – Secondary Metered Customer < 5,000 kW	1.0356
Total Loss Factor – Secondary Metered Customer > 5,000 kW	1.0145
Total Loss Factor – Primary Metered Customer < 5,000 kW	1.0253
Total Loss Factor – Primary Metered Customer > 5,000 kW	1.0045





Forward	Table of Contents	<b>Pull-Down Menu</b>	Input Cell	Formulated Cells	How to Turn on Macros
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**Please note that this model uses MACROS. Before starting, please ensure that macros have been enabled.  
For best viewing, set your screen resolution to 1280 by 960 pixels**

<b>Applicant Name</b>	Hydro One Brampton Networks Inc.
<b>Applicant Service Area</b>	Main
<b>OEB Application Number</b>	EB-2008-0186
<b>LDC Licence Number</b>	ED-2003-0038
<b>Notice Publication Language</b>	English/French
<b>DRC Rate</b>	0.00700
<b>Customer Bills</b>	12 per year
<b>Distribution Demand Bill Determinant</b>	kW
<b>RTSR - Low Voltage</b>	No
<b>Contact Information</b>	
<b>Name:</b>	Scott Miller
<b>Title:</b>	Regulatory Affairs Manager
<b>Phone Number:</b>	(905) 452-5504
<b>E-Mail Address:</b>	smiller@hydroonebrampton.com

**Please Note:**

In the event of an inconsistency between this model and any element of the December 20, 2006 "Report of the Board on Cost of Capital and 2nd Generation Incentive Regulation of Ontario's Electricity Distributors", the Report governs.

**Copyright:**

This IRLM adjustment model is protected by copyright and is being made available to you solely for the purpose of preparing or reviewing an IRLM adjustment application. You may use and copy this model for that purpose, and provide a copy of this model to any person that is advising or assisting you in that regard. Except as indicated above, any copying, reproduction, publication, sale, adaptation, translation, modification, reverse engineering or other use or dissemination of this model without the express written consent of the Ontario Energy Board is prohibited. If you provide a copy of this model to a person that is advising or assisting you in preparing or reviewing an IRLM adjustment application, you must ensure that the person understands and agrees to the restrictions noted above.



**Ontario Energy Board**  
 Commission de l'énergie de l'Ontario  
**2nd Generation Incentive Regulation Mechanism**



Email the Board

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[Bill Impacts Generator](#)

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<a href="#">A2.1 Table of Contents</a>	Table of Contents	
<a href="#">B1.1 Curr&amp;Appl Rt Class General</a>	Set up Tariff Sheet Rate Classes - General	
<a href="#">B2.1 Curr&amp;Appl Rt Class Unique</a>	Set up Tariff Sheet Rate Classes - Unique	
<a href="#">C1.1 Smart Meters Rate Adder</a>	Enter Smart Meter Rate Adder	
<a href="#">C2.1 Smart Meter Cost Recovery</a>		0
<a href="#">C2.2 Regulatory Asset Recovery</a>		0
<a href="#">C2.3 LV Wheeling</a>		0
<a href="#">C3.1 Curr Rates &amp; Chgs General</a>	Enter Current Tariff Sheet Rates - General Rate Classes	
<a href="#">C6.1 Curr Rates &amp; Chgs Unique</a>	Enter Current Tariff Sheet Rates - Unique Rate Classes (if applicable)	
<a href="#">C7.1 Base Dist Rates Gen</a>	Calculation of Base Distribution Rates - General Rate Classes	
<a href="#">C8.1 Base Dist Rates Unique</a>	Calculation of Base Distribution Rates - Unique Rate Classes	
<a href="#">D1.1 K-factor Adjustment Wrksht</a>	Enter 2006 EDR K-Factor Adjustment Data	
<a href="#">D1.2 K-factor Adjustment - Gen</a>	Calculation of Adjustment to Rates for K-Factor - General Rate Class	
<a href="#">D1.3 K-factor Adjustment - Uniq</a>	Calculation of Adjustment to Rates for K-Factor - Unique Rate Class	
<a href="#">D2.1 Federal Tax Adjust Wrksht</a>	Enter Federal Tax Adjustment Data	
<a href="#">D2.2 Federal Tax Adjustment Gen</a>	Calculation of Adjustment to Rates for Federal Taxes - General Rate Classes	
<a href="#">D2.3 Federal Tax Adjustment Unq</a>	Calculation of Adjustment to Rates for Federal Taxes - Unique Rate Classes	
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<a href="#">E2.1 Rate Reb Base Dist Rts Unq</a>	Calculation of Rates before Price Cap Adjustment - Unique Rate Classes	
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<a href="#">G1.1 Aft PrcCp Base Dst Rts Gen</a>	Base Distribution Rates after Price Cap Adjustment - General Rate Class	
<a href="#">G2.1 AftPrcCap Bas Dst Rts Uniq</a>	Base Distribution Rates after Price Cap Adjustment - Unique Rate Class	
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<a href="#">J2.1 Smart Meter Cost Recovery</a>		0
<a href="#">J2.2 Regulatory Asset Recovery</a>		0
<a href="#">J2.3 LV Wheeling</a>		0
<a href="#">K1.1 App For Dist Rates Gen</a>	Calculation of Proposed Distribution Rates - General Rate Classes	
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<a href="#">N1.1 Appl For Mthly R&amp;C General</a>	Monthly Rates and Charges - General Rate Classes	
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<a href="#">O1.2 Sum of Chgs To MSC&amp;DX Unig</a>	Shows Summary of Changes To Unique Service Charge and Distribution Volumetric Charge
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## 2nd Generation Incentive Regulation Mechanism

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### Instructions

Using the pull-down list in column C and D, choose the general classes that match those on your Board-Approved 2008 Tariff of Rates and Charges.

In column E, indicate whether the class is **NEW, CONTINUING, OR DISCONTINUING**.

(If a Rate Classification needs to be added to the pull-down list, please contact the Board.)

<u>Rate Group</u>	<u>Rate Class</u>	<u>Applied for Status</u>	<u>Fixed Metric</u>	<u>Vol Metric</u>
RES	Residential	Continuing	Customer - 12 per year	kWh
GSLT50	General Service Less Than 50 kW	Continuing	Customer - 12 per year	kWh
GSGT50	General Service 50 to 699 kW	Continuing	Customer - 12 per year	kW
GSGT50	General Service 700 to 4,999 kW	Continuing	Customer - 12 per year	kW
LU	Large Use > 5000 kW	Continuing	Customer - 12 per year	kW
USL	Unmetered Scattered Load	Continuing	Connection - 12 per year	kWh
Sen	Sentinel Lighting	Continuing	Connection - 12 per year	kW
SL	Street Lighting	Continuing	Connection - 12 per year	kW
NA	Rate Class 9	NA	NA	NA
NA	Rate Class 10	NA	NA	NA
NA	Rate Class 11	NA	NA	NA
NA	Rate Class 12	NA	NA	NA
NA	Rate Class 13	NA	NA	NA
NA	Rate Class 14	NA	NA	NA
NA	Rate Class 15	NA	NA	NA
NA	Rate Class 16	NA	NA	NA
NA	Rate Class 17	NA	NA	NA
NA	Rate Class 18	NA	NA	NA
NA	Rate Class 19	NA	NA	NA
NA	Rate Class 20	NA	NA	NA
NA	Rate Class 21	NA	NA	NA
NA	Rate Class 22	NA	NA	NA
NA	Rate Class 23	NA	NA	NA
NA	Rate Class 24	NA	NA	NA
NA	Rate Class 25	NA	NA	NA



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**Instructions**

Using the pull-down list in column C and D, choose the unique classes that match those on your Board-Approved 2008 Tariff of Rates and Charges.

In column E, indicate whether the class is **NEW, CONTINUING, OR DISCONTINUING**.

**(If a Rate Classification needs to be added to the pull-down list, please contact the Board.)**

Rate Group	Rate Class	Applied for Status	Fixed Metric	Vol Metric
USB	Standby Power - APPROVED ON AN INTERIM BASIS	Continuing	Customer - 12 per year	kW
UEMB	Embedded Distributor	Continuing	Customer - 12 per year	kW
NA	Rate Class 28	NA	NA	NA
NA	Rate Class 29	NA	NA	NA
NA	Rate Class 30	NA	NA	NA
NA	Rate Class 31	NA	NA	NA
NA	Rate Class 32	NA	NA	NA
NA	Rate Class 33	NA	NA	NA
NA	Rate Class 34	NA	NA	NA
NA	Rate Class 35	NA	NA	NA



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### Instructions

The smart meter plan rate adder is a monthly service charge for metered customers equivalent to an amount of \$0.30 per month per residential customer for utilities that do not have a plan. A different amount applied to utilities who had a smart meter plan that was modified in accordance with the Decision with Reasons RP-2005-0020 / EB-2005-0529.

Please identify the rate adder in cell D28. For most utilities, the rate adder can be located in the Board-approved 2008 IRM model, worksheet "8. Addback of Smart Meter Amt", column D.

Rate Adder	Smart Meters Rate Adder
Applied for Status	Continuing
Metric Applied To	Metered Customers
Method of Application	Uniform Service Charge
Uniform Service Charge Amount	0.790000

Rate Class	Applied to Class	Fixed Amount	Fixed Metric	Vol Amount	Vol Metric
Residential	Yes	0.790000	Customer - 12 per year	0.000000	kWh
General Service Less Than 50 kW	Yes	0.790000	Customer - 12 per year	0.000000	kWh
General Service 50 to 699 kW	Yes	0.790000	Customer - 12 per year	0.000000	kW
General Service 700 to 4,999 kW	Yes	0.790000	Customer - 12 per year	0.000000	kW
Large Use > 5000 kW	Yes	0.790000	Customer - 12 per year	0.000000	kW

Rate Rider	Smart Meter Cost Recovery
Sunset Date	April 30, 2009 <small>DD/MM/YYYY</small>
Metric Applied To	Metered Customers
Method of Application	Uniform Service Charge
Uniform Service Charge Amount	-0.090000

Rate Class	Applied to Class	Fixed Amount	Fixed Metric	Vol Amount	Vol Metric
Residential	Yes	-0.090000	Customer - 12 per year	0.000000	kWh
General Service Less Than 50 kW	Yes	-0.090000	Customer - 12 per year	0.000000	kWh
General Service 50 to 699 kW	Yes	-0.090000	Customer - 12 per year	0.000000	kW
General Service 700 to 4,999 kW	Yes	-0.090000	Customer - 12 per year	0.000000	kW
Large Use > 5000 kW	Yes	-0.090000	Customer - 12 per year	0.000000	kW

C2.1 Smart Meter Cost Recovery

Rate Rider	Regulatory Asset Recovery
Sunset Date	DD/MM/YYYY
Metric Applied To	All Customers
Method of Application	Distinct Volumetric

Rate Class	Applied to Class	Fixed Amount	Fixed Metric	Vol Amount	Vol Metric
Residential	No	0.000000	Customer - 12 per year	0.000000	kWh
General Service Less Than 50 kW	No	0.000000	Customer - 12 per year	0.000000	kWh
General Service 50 to 699 kW	No	0.000000	Customer - 12 per year	0.000000	kW
General Service 700 to 4,999 kW	No	0.000000	Customer - 12 per year	0.000000	kW
Large Use > 5000 kW	No	0.000000	Customer - 12 per year	0.000000	kW
Unmetered Scattered Load	No	0.000000	Connection - 12 per year	0.000000	kWh
Sentinel Lighting	No	0.000000	Connection - 12 per year	0.000000	kW
Street Lighting	No	0.000000	Connection - 12 per year	0.000000	kW

C2.2 Regulatory Asset Recovery

Rate Rider	LV Wheeling
Sunset Date	
	DD/MM/YYYY
Metric Applied To	All Customers
Method of Application	Distinct Volumetric

Rate Class	Applied to Class	Fixed Amount	Fixed Metric	Vol Amount	Vol Metric
Residential	No	0.000000	Customer - 12 per year	0.000000	kWh
General Service Less Than 50 kW	No	0.000000	Customer - 12 per year	0.000000	kWh
General Service 50 to 699 kW	No	0.000000	Customer - 12 per year	0.000000	kW
General Service 700 to 4,999 kW	No	0.000000	Customer - 12 per year	0.000000	kW
Large Use > 5000 kW	No	0.000000	Customer - 12 per year	0.000000	kW
Unmetered Scattered Load	No	0.000000	Connection -12 per year	0.000000	kWh
Sentinel Lighting	No	0.000000	Connection - 12 per year	0.000000	kW
Street Lighting	No	0.000000	Connection - 12 per year	0.000000	kW



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**Instructions**  
Enter your Board Approved 2008 Tariff of Rates and Charges for all General Classes

**Rate Class**

**Residential**

Rate Description	Metric	Rate
Service Charge	\$	11.45
Service Charge Rate Rider for Smart Meter Cost Recovery – effective until April-30-09	\$	-0.09
Distribution Volumetric Rate	\$/kWh	0.0157
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0048
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0045
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**Rate Class**

**General Service Less Than 50 kW**

Rate Description	Metric	Rate
Service Charge	\$	21.29
Service Charge Rate Rider for Smart Meter Cost Recovery – effective until April-30-09	\$	-0.09
Distribution Volumetric Rate	\$/kWh	0.0181
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0043
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0040
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**Rate Class**

**General Service 50 to 699 kW**

Rate Description	Metric	Rate
Service Charge	\$	104.11
Service Charge Rate Rider for Smart Meter Cost Recovery – effective until April-30-09	\$	-0.09
Distribution Volumetric Rate	\$/kW	2.3333
Retail Transmission Rate – Network Service Rate	\$/kW	1.6567
	\$/kW	0.0000
	\$/kW	0.0000
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.5209
	\$/kW	0.0000
	\$/kW	0.0000
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**Rate Class**

**General Service 700 to 4,999 kW**

Rate Description	Metric	Rate
Service Charge	\$	1,435.59
Service Charge Rate Rider for Smart Meter Cost Recovery – effective until April-30-09	\$	-0.09
Distribution Volumetric Rate	\$/kW	3.8003
Retail Transmission Rate – Network Service Rate	\$/kW	1.8580
	\$/kW	0.0000
	\$/kW	0.0000
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.6349
	\$/kW	0.0000
	\$/kW	0.0000
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**Rate Class**

**Large Use > 5000 kW**

Rate Description	Metric	Rate
Service Charge	\$	4,804.91
Service Charge Rate Rider for Smart Meter Cost Recovery – effective until April-30-09	\$	-0.09
Distribution Volumetric Rate	\$/kW	2.9526
Retail Transmission Rate – Network Service Rate	\$/kW	2.1028
	\$/kW	0.0000
	\$/kW	0.0000
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.8897
	\$/kW	0.0000



	\$/kW	0.0000
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Rate Class

**Unmetered Scattered Load**

Rate Description	Metric	Rate
Service Charge (per connection)	\$	20.50
Distribution Volumetric Rate	\$/kWh	0.0181
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0043
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0040
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Rate Class

**Sentinel Lighting**

Rate Description	Metric	Rate
Service Charge (per connection)	\$	
Distribution Volumetric Rate	\$/kW	3.8647
Retail Transmission Rate – Network Service Rate	\$/kW	1.3812
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.2678
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Rate Class

**Street Lighting**

Rate Description	Metric	Rate
Service Charge (per connection)	\$	0.00
Distribution Volumetric Rate	\$/kW	2.2429
Retail Transmission Rate – Network Service Rate	\$/kW	1.3794
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.2662
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25



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### Instructions

Enter your Board-Approved 2008 Tariff of Rates and Charges for the Unique classes

Rate Class

#### Standby Power - APPROVED ON AN INTERIM BASIS

Rate Description	Metric	Rate
Service Charge	\$	0.00
Distribution Volumetric Rate	\$/kW	1.5033
Retail Transmission Rate – Network Service Rate	\$/kW	0.0000
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	0.0000

Rate Class

#### Embedded Distributor

Rate Description	Metric	Rate
Service Charge	\$	0.00
Distribution Volumetric Rate	\$/kW	0.0611
Retail Transmission Rate – Network Service Rate	\$/kW	0.0000
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	0.0000



## 2nd Generation Incentive Regulation Mechanism



### Instructions

No input required.

The sheet provides a breakdown for the determination of "Current Base Rates" for all general classes.

### Service Charge

<u>Class</u>	<u>Metric</u>	<u>Current Rates</u>	<u>Smart Meters Rate Adder</u>	<u>Current Base Rates</u>
Residential	Customer - 12 per year	11.450000	0.790000	10.660000
General Service Less Than 50 kW	Customer - 12 per year	21.290000	0.790000	20.500000
General Service 50 to 699 kW	Customer - 12 per year	104.110000	0.790000	103.320000
General Service 700 to 4,999 kW	Customer - 12 per year	1,435.590000	0.790000	1,434.800000
Large Use > 5000 kW	Customer - 12 per year	4,804.910000	0.790000	4,804.120000
Unmetered Scattered Load	Connection -12 per year	20.500000	0.000000	20.500000
Sentinel Lighting	Connection - 12 per year	0.000000	0.000000	0.000000
Street Lighting	Connection - 12 per year	0.000000	0.000000	0.000000

### Distribution Volumetric Rate

<u>Class</u>	<u>Metric</u>	<u>Current Rates</u>	<u>Smart Meters Rate Adder</u>	<u>Current Base Rates</u>
Residential	kWh	0.015700	0.000000	0.015700



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**Instructions**

**No input required.**

**The sheet provides a breakdown for the determination of "Current Base Rates" for all unique classes.**

**Service Charge**

Class	Metric	Current Rates	Current Base Rates
Standby Power - APPROVED ON AN INTERIM BASIS	Customer - 12 per year	0.000000	0.000000
Embedded Distributor	Customer - 12 per year	0.000000	0.000000

**Distribution Volumetric Rate**

Class	Metric	Current Rates	Current Base Rates
Standby Power - APPROVED ON AN INTERIM BASIS	Customer - 12 per year	1.503300	1.503300
Embedded Distributor	Customer - 12 per year	0.061100	0.061100



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**K-Factor Derivation Worksheet**  
Please enter the required information into the green shaded cells.

**Capital Structure Transition**

**Size of Utility (Rate Base)**

Year	Small [\$0, \$100M)		Med-Small [\$100M, \$250M)		Med-Large [\$250M, \$1B)		Large >=\$1B	
	Debt	Equity	Debt	Equity	Debt	Equity	Debt	Equity
2007	50.0%	50.0%	55.0%	45.0%	60.0%	40.0%	65.0%	35.0%
2008	53.3%	46.7%	57.5%	42.5%	60.0%	40.0%	62.5%	37.5%
2009	56.7%	43.3%	60.0%	40.0%	60.0%	40.0%	60.0%	40.0%
2010	60.0%	40.0%	60.0%	40.0%	60.0%	40.0%	60.0%	40.0%

**Cost of Capital parameters**

ROE	A	9.00%	(Board Approved 2006 EDR Model, Sheet 3-2, Cell E32)
Debt Rate	B	6.95%	(Board Approved 2006 EDR Model, Sheet 3-2, Cell C25)
Rate Base	C	\$ 249,237,964	(Board Approved 2006 EDR Model, Sheet 3-1, Cell F21)
Size of Utility	D	Med-Small	

**Deemed Capital Structure**

	Debt	Equity	
2006	E1 55.0%	E2 45.0%	Based on C, copies the deemed D/E from row "2007" of the table
2008	F1 57.5%	F2 42.5%	Based on C, copies the deemed D/E from row "2008" of the table
2009	F1.2 60.0%	F2.2 40.0%	Based on C, copies the deemed D/E from row "2009" of the table

**Cost of Capital**

2006	G	7.8725%	= (E1 X B) + (E2 X A)	<b>Weighted Average Cost of capital</b>
2008	H	7.82%	= (F1 X B) + (F2 X A)	
2009	H1	7.77%	= (F1.2 X B) + (F2.2 X A)	

**Return on Rate Base**

2006	I	\$ 19,621,258.72	= C X G / 100
2008	J	\$ 19,493,524.26	= C X H / 100
2009	J1	\$ 19,365,789.80	= C X H1 / 100

**Distribution Expenses and Revenue Requirement (before PILs)**

Distribution Expenses (other than PILs)	K	\$ 26,540,516	(Board Approved 2006 EDR Model, Sheet 4-1, Cell F15)
Base Revenue Requirement	L	\$ 53,394,208	(Board Approved 2006 EDR Model, Sheet 5-5, Cell F27)
Transformer Allowance Credit	M	\$ 1,468,274	(Board Approved 2006 EDR Model, Sheet 6-3, Cell "Total" in Row R120)

**Revenue Requirement (before PILs)**

2006	N	\$ 46,161,774.72	= I + K
2008	O	\$ 46,034,040.26	= J + K
2009	O2	\$ 45,906,305.80	= J1 + K

**Target Net Income (EBIT)**

2006	\$ 10,094,137.54	P1 = I - P2
2008	\$ 9,533,352.12	Q1 = J - Q2
2009	\$ 8,972,566.70	Q1.2 = J1 - Q2.2

**Interest Expense**

2006	\$ 9,527,121.17	P2 = C X (B X E1 / 100)
2008	\$ 9,960,172.14	Q2 = C X (B X F1 / 100)
2009	\$ 10,393,223.10	Q2.2 = C X (B X F1.2 / 100)

**PILs**

Tax Rate	R	36.12%	(Board Approved 2006 PILs Model, Sheet "Test Year PILs, Tax Provision", Cell D14)
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Large Corporation Tax Allowance (if applicable) - grossed up	\$ 293,006	S	(Board Approved 2006 PILs Model, Sheet "Test Year PILs, Tax Provision", Cell D31)
OCT (Rate Base less \$10,000,000 X 0.30%)	\$ 864,244	T	(Board Approved 2006 PILs Model, Sheet "Test Year PILs, Tax Provision", Cell D30)
PILs Allowance	\$ 10,240,872	U	(Board Approved 2006 PILs Model, Sheet "Test Year PILs, Tax Provision", Cell D33)
Taxable Income	2006 \$ 16,064,833	AC	(Board Approved 2006 PILs Model, Sheet "Test Year PILs, Tax Provision", Cell D11) = AC + (Q1 - P1) * (R / 100) = AC + (Q1.2 - P1) * (R / 100)
	2008 \$ 15,862,277	AD	
	2009 \$ 15,659,722	AD1	
Federal Tax (grossed up)	2006 \$ 9,083,622	V	= AC * (R / 100) / (1 - R / 100) = AD * (R / 100) / (1 - R / 100) = AD1 * (R / 100) / (1 - R / 100)
	2008 \$ 8,969,090	W	
	2009 \$ 8,854,558	W1	

**Base Revenue Requirement Adjustment (including PILs)**

**Revenue Requirement (less LCT)** (LCT is removed as it was removed in from rates in 2007 EDR)

2006	\$ 56,109,640.63	X	= N + V + T
2008	\$ 55,867,374.06	Y	= O + W + T
2009	\$ 55,625,107.48	Y2	= O2 + W + T

**Base Revenue Requirement (plus transformer allowance credit)**

(Transformer allowance credit needs to be added onto revenue requirement for full rate recovery - similar to LCT calculation in 2007 EDR)

2006	\$ 54,862,482.00	Z	= L + M
2008	\$ 54,620,215.43	AA1	= Z + (Y - X)
2009	\$ 54,377,948.85	AA1.2	= Z + (Y2 - X)
Difference	2008 \$ -242,266.57	AA2	= AA1 - Z
	2009 \$ -242,266.57	AA2.2	= AA1.2 - AA1
K-factor	2008 -0.4%	AB	= AA2 / Z
	2009 -0.4%	AC	= AA2.2 / AA1



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### Instructions

This worksheet applies the 2009 K-Factor adjustment from Sheet D1.1 to all general classes.

No input required.

Rate Rebalancing Adjustment	K-factor Adjustment - General		
Metric Applied To	All Customers		
Method of Application	Both Uniform%		
Uniform Service Charge Percent	-0.400%	Uniform Volumetric Charge Percent	-0.400% kWh -0.400% kW

### Monthly Service Charge

Class	Metric	Base Rate	To This Class	% Adjustment	Adj To Base
Residential	Customer - 12 per year	10.660000	Yes	-0.400%	0.042640
General Service Less Than 50 kW	Customer - 12 per year	20.500000	Yes	-0.400%	0.082000
General Service 50 to 699 kW	Customer - 12 per year	103.320000	Yes	-0.400%	0.413280
General Service 700 to 4,999 kW	Customer - 12 per year	1434.800000	Yes	-0.400%	5.739200
Large Use > 5000 kW	Customer - 12 per year	4804.120000	Yes	-0.400%	19.216480
Unmetered Scattered Load	Connection -12 per year	20.500000	Yes	-0.400%	0.082000
Sentinel Lighting	Connection - 12 per year	0.000000	Yes	-0.400%	0.000000
Street Lighting	Connection - 12 per year	0.000000	Yes	-0.400%	0.000000

### Volumetric Distribution Charge

Class	Metric	Base Rate	To This Class	% Adjustment	Adj To Base
Residential	kWh	0.015700	Yes	-0.400%	0.000063
General Service Less Than 50 kW	kWh	0.018100	Yes	-0.400%	0.000072
General Service 50 to 699 kW	kW	2.333300	Yes	-0.400%	0.009333
General Service 700 to 4,999 kW	kW	3.800300	Yes	-0.400%	0.015201
Large Use > 5000 kW	kW	2.952600	Yes	-0.400%	0.011810
Unmetered Scattered Load	kWh	0.018100	Yes	-0.400%	0.000072
Sentinel Lighting	kW	3.864700	Yes	-0.400%	0.015459
Street Lighting	kW	2.242900	Yes	-0.400%	0.008972



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**Instructions**

This worksheet applies the 2009 K-Factor adjustment from Sheet D1.1 to all unique classes.

No input required.

Rate Rebalancing Adjustment	K-factor Adjustment - Unique		
Metric Applied To	All Customers		
Method of Application	Both Uniform%		
Uniform Service Charge Percent	-0.400%	Uniform Volumetric Charge Percent	-0.400% kWh -0.400% kW

**Monthly Service Charge**

Class	Metric	Base Rate	To This Class	% Adjustment	Adj To Base
Standby Power - APPROVED ON AN INTERIM BASIS	Customer - 12 per year	0.000000	Yes	-0.400%	0.000000
Embedded Distributor	Customer - 12 per year	0.000000	Yes	-0.400%	0.000000

**Volumetric Distribution Charge**

Class	Metric	Base Rate	To This Class	% Adjustment	Adj To Base
Standby Power - APPROVED ON AN INTERIM BASIS	kW	1.503300	Yes	-0.400%	0.006013
Embedded Distributor	kW	0.061100	Yes	-0.400%	0.000244



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### Instructions

This worksheet derives the 2009 Federal Tax Rate Adjustment Factor.

No input required.

	2006		2008	2008 Adjustment	2009	2009 Adjustment
<b>From 2006 PIL's Model</b>						
2006 Regulatory Taxable Income ( <i>K-Factor Cell H87</i> )	16,064,833	A	16,064,833		16,064,833	
2006 Corporate Income Tax Rate ( <i>K-Factor Cell E79</i> )	36.12%	B	33.50%		33.00%	
Corporate PILs/Income Tax Provision for Test Year	5,802,618	C = A * B	5,381,719		5,301,395	
Income Tax (grossed-up)	9,083,622	D = C / (1 - B)	8,092,811	-990,811	7,912,530	-180,281 ← 2009 Amount to be adjusted
<b>From 2006 EDR Model</b>						
2006 EDR Base Revenue Requirement From Distribution Rates ( <i>K-Factor Cell E105</i> )	54,862,482	E	54,862,482		54,862,482	
<b>Grossed up taxes as a % of Revenue Requirement</b>	16.600%	F = D / E	14.800%	-1.800%	14.400%	-0.400%

↑  
2009 Federal Tax Rate Adjustment Factor





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**Instructions**

**This worksheet applies the 2009 Federal Tax Rate Adjustment Factor to all general classes.**

**No input required.**

Rate Rebalancing Adjustment	Federal Tax Adjustment General		
Metric Applied To	All Customers		
Method of Application	Both Uniform%		
Uniform Service Charge Percent	-0.400%	Uniform Volumetric Charge Percent	-0.400% kWh -0.400% kW

**Monthly Service Charge**

<u>Class</u>	<u>Metric</u>	<u>Base Rate</u>	<u>To This Class</u>	<u>% Adjustment</u>	<u>Adj To Base</u>
Residential	Customer - 12 per year	10.660000	Yes	-0.400% -	0.042640



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**Instructions**

This worksheet applies the 2009 Federal Tax Rate Adjustment Factor to all unique classes.

No input required.

Rate Rebalancing Adjustment	Federal Tax Adjustment Unique
Metric Applied To	All Customers
Method of Application	Both Uniform%
Uniform Service Charge Percent	-0.400%
	Uniform Volumetric Charge Percent
	-0.400% kWh
	-0.400% kW

### Monthly Service Charge

Class	Metric	Base Rate	To This Class	% Adjustment	Adj To Base
Standby Power - APPROVED ON AN INTERIM BASIS	Customer - 12 per year	0.000000	Yes	-0.400%	0.000000
Embedded Distributor	Customer - 12 per year	0.000000	Yes	-0.400%	0.000000

### Volumetric Distribution Charge

Class	Metric	Base Rate	To This Class	% Adjustment	Adj To Base
Standby Power - APPROVED ON AN INTERIM BASIS	kW	1.503300	Yes	-0.400%	0.006013
Embedded Distributor	kW	0.061100	Yes	-0.400%	0.000244



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**Instructions**

**This worksheet shows the adjustments to Base Rates prior to the application of the Price Cap Index for all general classes.**

**No input required.**

### Monthly Service Charge

Class	Metric	Base Rate	K-factor Adjustment -	Federal Tax Adjustment	Rate ReBal Base
			General	General	
Residential	Customer - 12 per year	10.660000	-0.042640	-0.042640	10.574720
General Service Less Than 50 kW	Customer - 12 per year	20.500000	-0.082000	-0.082000	20.336000
General Service 50 to 699 kW	Customer - 12 per year	103.320000	-0.413280	-0.413280	102.493440
General Service 700 to 4,999 kW	Customer - 12 per year	1,434.800000	-5.739200	-5.739200	1,423.321600
Large Use > 5000 kW	Customer - 12 per year	4,804.120000	-19.216480	-19.216480	4,765.687040
Unmetered Scattered Load	Connection -12 per year	20.500000	-0.082000	-0.082000	20.336000
Sentinel Lighting	Connection - 12 per year	0.000000	0.000000	0.000000	0.000000
Street Lighting	Connection - 12 per year	0.000000	0.000000	0.000000	0.000000

### Volumetric Distribution Charge

Class	Metric	Base Rate	K-factor Adjustment -	Federal Tax Adjustment	Rate ReBal Base
			General	General	
Residential	kWh	0.015700	-0.000063	-0.000063	0.015574
General Service Less Than 50 kW	kWh	0.018100	-0.000072	-0.000072	0.017956
General Service 50 to 699 kW	kW	2.333300	-0.009333	-0.009333	2.314634
General Service 700 to 4,999 kW	kW	3.800300	-0.015201	-0.015201	3.769898
Large Use > 5000 kW	kW	2.952600	-0.011810	-0.011810	2.928980
Unmetered Scattered Load	kWh	0.018100	-0.000072	-0.000072	0.017956
Sentinel Lighting	kW	3.864700	-0.015459	-0.015459	3.833782
Street Lighting	kW	2.242900	-0.008972	-0.008972	2.224956



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**Instructions**

This worksheet shows the adjustments to Base Rates prior to the application of the Price Cap Index for all unique classes.  
No input required.

**Monthly Service Charge**

<u>Class</u>	<u>Metric</u>	<u>Base Rate</u>	<u>K-factor Adjustment - Unique</u>	<u>Federal Tax Adjustment Unique</u>	<u>Rate ReBal Base</u>
Standby Power - APPROVED ON AN INTERIM BASIS	Customer - 12 per year	0.000000	0.000000	0.000000	0.000000
Embedded Distributor	Customer - 12 per year	0.000000	0.000000	0.000000	0.000000

**Volumetric Distribution Charge**

<u>Class</u>	<u>Metric</u>	<u>Base Rate</u>	<u>K-factor Adjustment - Unique</u>	<u>Federal Tax Adjustment Unique</u>	<u>Rate ReBal Base</u>
Standby Power - APPROVED ON AN INTERIM BASIS	Customer - 12 per year	1.503300	-0.006013	-0.006013	1.491274
Embedded Distributor	Customer - 12 per year	0.061100	-0.000244	-0.000244	0.060612



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### Instructions

This worksheet is a placeholder for the 2009 GDP-IP amount that will be determined in the beginning of March 2009.

Board staff will make the necessary adjustment to cell C22.

No input required.

Price Escalator (GDP-IP)	Average annual expected Productivity Gain (X)	(GDP-IP) - X
2.1%	1.0%	1.1%



## 2nd Generation Incentive Regulation Mechanism

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**Instructions**

This worksheet applies the Price Cap Adjustment from Sheet F1.1 to all general classes.

No input required.

<b>Price Cap Adjustment</b>	Price Cap Adjustment - General	
<b>Metric Applied To</b>	All Customers	
<b>Method of Application</b>	Both Uniform%	
<b>Uniform Service Charge Percent</b>	1.100%	<b>Uniform Volumetric Charge Percent</b> 1.100% kWh 1.100% kW

### Monthly Service Charge

Class	Metric	Base Rate	To This Class	% Adjustment	Adj To Base
Residential	Customer - 12 per year	10.574720	Yes	1.100%	0.116322
General Service Less Than 50 kW	Customer - 12 per year	20.336000	Yes	1.100%	0.223696
General Service 50 to 699 kW	Customer - 12 per year	102.493440	Yes	1.100%	1.127428
General Service 700 to 4,999 kW	Customer - 12 per year	1423.321600	Yes	1.100%	15.656538
Large Use > 5000 kW	Customer - 12 per year	4765.687040	Yes	1.100%	52.422557
Unmetered Scattered Load	Connection -12 per year	20.336000	Yes	1.100%	0.223696
Sentinel Lighting	Connection - 12 per year	0.000000	Yes	1.100%	0.000000
Street Lighting	Connection - 12 per year	0.000000	Yes	1.100%	0.000000

### Volumetric Distribution Charge

Class	Metric	Base Rate	To This Class	% Adjustment	Adj To Base
Residential	kWh	0.015574	Yes	1.100%	0.000171
General Service Less Than 50 kW	kWh	0.017956	Yes	1.100%	0.000198
General Service 50 to 699 kW	kW	2.314634	Yes	1.100%	0.025461
General Service 700 to 4,999 kW	kW	3.769898	Yes	1.100%	0.041469
Large Use > 5000 kW	kW	2.928980	Yes	1.100%	0.032219
Unmetered Scattered Load	kWh	0.017956	Yes	1.100%	0.000198
Sentinel Lighting	kW	3.833782	Yes	1.100%	0.042172
Street Lighting	kW	2.224956	Yes	1.100%	0.024475



Email

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### Instructions

This worksheet applies the Price Cap Adjustment from Sheet F1.1 to all unique classes.

No input required.

Price Cap Adjustment	Price Cap Adjustment - Unique		
Metric Applied To	All Customers		
Method of Application	Both Uniform%		
Uniform Service Charge Percent	1.100%	Uniform Volumetric Charge Percent	1.100% kWh 1.100% kW

### Monthly Service Charge

Class	Metric	Base Rate	To This Class	% Adjustment	Adj To Base
Standby Power - APPROVED ON AN INTERIM BASIS	Customer - 12 per year	0.000000	Yes	1.100%	0.000000
Embedded Distributor	Customer - 12 per year	0.000000	Yes	1.100%	0.000000

### Volumetric Distribution Charge

Class	Metric	Base Rate	To This Class	% Adjustment	Adj To Base
Standby Power - APPROVED ON AN INTERIM BASIS	kW	1.491274	Yes	1.100%	0.016404
Embedded Distributor	kW	0.060612	Yes	1.100%	0.000667



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### Instructions

This worksheet shows the adjustments made to Base Rates after the application of the Price Cap Adjustment to all general classes.

No input required.

### Monthly Service Charge

Class	Metric	Base Rate	Price Cap Adjustment -	After Price Cape Base
			General	
Residential	Customer - 12 per year	10.574720	0.116322	10.691042
General Service Less Than 50 kW	Customer - 12 per year	20.336000	0.223696	20.559696
General Service 50 to 699 kW	Customer - 12 per year	102.493440	1.127428	103.620868
General Service 700 to 4,999 kW	Customer - 12 per year	1423.321600	15.656538	1438.978138
Large Use > 5000 kW	Customer - 12 per year	4765.687040	52.422557	4818.109597
Unmetered Scattered Load	Connection -12 per year	20.336000	0.223696	20.559696
Sentinel Lighting	Connection - 12 per year	0.000000	0.000000	0.000000
Street Lighting	Connection - 12 per year	0.000000	0.000000	0.000000

### Volumetric Distribution Charge

Class	Metric	Base Rate	Price Cap Adjustment -	After Price Cape Base
			General	
Residential	kWh	0.015574	0.000171	0.015745
General Service Less Than 50 kW	kWh	0.017956	0.000198	0.018154
General Service 50 to 699 kW	kW	2.314634	0.025461	2.340095
General Service 700 to 4,999 kW	kW	3.769898	0.041469	3.811367
Large Use > 5000 kW	kW	2.928980	0.032219	2.961199
Unmetered Scattered Load	kWh	0.017956	0.000198	0.018154
Sentinel Lighting	kW	3.833782	0.042172	3.875954
Street Lighting	kW	2.224956	0.024475	2.249431





## 2nd Generation Incentive Regulation Mechanism



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### Instructions

This worksheet shows the adjustments made to Base Rates after the application of the Price Cap Adjustment to all unique classes.

No input required.

### Monthly Service Charge

<u>Class</u>	<u>Metric</u>	<u>Base Rate</u>	<u>Price Cap Adjustment - Unique</u>	<u>After Price Cape Base</u>
Standby Power - APPROVED ON AN INTERIM BASIS	Customer - 12 per year	0.000000	0.000000	0.000000
Embedded Distributor	Customer - 12 per year	0.000000	0.000000	0.000000

### Volumetric Distribution Charge

<u>Class</u>	<u>Metric</u>	<u>Base Rate</u>	<u>Price Cap Adjustment - Unique</u>	<u>After Price Cape Base</u>
Standby Power - APPROVED ON AN INTERIM BASIS	Customer - 12 per year	1.491274	0.016404	1.507678
Embedded Distributor	Customer - 12 per year	0.060612	0.000667	0.061279



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### Instructions

Enter your Smart Meter Rate Adder in cell D28.

Rate Adder	Smart Meters Rate Adder
Applied for Status	Continuing
Metric Applied To	Metered Customers
Method of Application	Uniform Service Charge
Uniform Service Charge Amount	1.120000

Rate Class	Applied to Class	Fixed Amount	Fixed Metric	Vol Amount	Vol Metric
Residential	Yes	1.120000	Customer - 12 per year	0.000000	kWh
General Service Less Than 50 kW	Yes	1.120000	Customer - 12 per year	0.000000	kWh
General Service 50 to 699 kW	Yes	1.120000	Customer - 12 per year	0.000000	kW
General Service 700 to 4,999 kW	Yes	1.120000	Customer - 12 per year	0.000000	kW
Large Use > 5000 kW	Yes	1.120000	Customer - 12 per year	0.000000	kW

Rate Rider	Smart Meter Cost Recovery
Sunset Date	DD/MM/YYYY
Metric Applied To	Metered Customers
Method of Application	Uniform Service Charge
Uniform Service Charge Amount	0.000000

Rate Class	Applied to Class	Fixed Amount	Fixed Metric	Vol Amount	Vol Metric
Residential	Yes	0.000000	Customer - 12 per year	0.000000	kWh
General Service Less Than 50 kW	Yes	0.000000	Customer - 12 per year	0.000000	kWh
General Service 50 to 699 kW	Yes	0.000000	Customer - 12 per year	0.000000	kW
General Service 700 to 4,999 kW	Yes	0.000000	Customer - 12 per year	0.000000	kW
Large Use > 5000 kW	Yes	0.000000	Customer - 12 per year	0.000000	kW

Rate Rider	Regulatory Asset Recovery
Sunset Date	DD/MM/YYYY
Metric Applied To	All Customers
Method of Application	Distinct Volumetric

Rate Class	Applied to Class	Fixed Amount	Fixed Metric	Vol Amount	Vol Metric
Residential	No	0.000000	Customer - 12 per year	0.000000	kWh
General Service Less Than 50 kW	No	0.000000	Customer - 12 per year	0.000000	kWh
General Service 50 to 699 kW	No	0.000000	Customer - 12 per year	0.000000	kW
General Service 700 to 4,999 kW	No	0.000000	Customer - 12 per year	0.000000	kW
Large Use > 5000 kW	No	0.000000	Customer - 12 per year	0.000000	kW
Unmetered Scattered Load	No	0.000000	Connection - 12 per year	0.000000	kWh
Sentinel Lighting	No	0.000000	Connection - 12 per year	0.000000	kW
Street Lighting	No	0.000000	Connection - 12 per year	0.000000	kW

J2.2 Regulatory Asset Recovery

Rate Rider	LV Wheeling
Sunset Date	
	DD/MM/YYYY
Metric Applied To	All Customers
Method of Application	Distinct Volumetric

Rate Class	Applied to Class	Fixed Amount	Fixed Metric	Vol Amount	Vol Metric
Residential	No	0.000000	Customer - 12 per year	0.000000	kWh
General Service Less Than 50 kW	No	0.000000	Customer - 12 per year	0.000000	kWh
General Service 50 to 699 kW	No	0.000000	Customer - 12 per year	0.000000	kW
General Service 700 to 4,999 kW	No	0.000000	Customer - 12 per year	0.000000	kW
Large Use > 5000 kW	No	0.000000	Customer - 12 per year	0.000000	kW
Unmetered Scattered Load	No	0.000000	Connection -12 per year	0.000000	kWh
Sentinel Lighting	No	0.000000	Connection - 12 per year	0.000000	kW
Street Lighting	No	0.000000	Connection - 12 per year	0.000000	kW



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### Instructions

This worksheet shows the derivation of the Final distribution rates for all general classes.

No input required.

### Monthly Service Charge

<u>Class</u>	<u>Metric</u>	<u>Base Rate</u>	<u>Smart Meters Rate Adder</u>	<u>Final Base</u>
Residential	Customer - 12 per year	10.691042	1.120000	11.811042
General Service Less Than 50 kW	Customer - 12 per year	20.559696	1.120000	21.679696
General Service 50 to 699 kW	Customer - 12 per year	103.620868	1.120000	104.740868
General Service 700 to 4,999 kW	Customer - 12 per year	1,438.978138	1.120000	1,440.098138
Large Use > 5000 kW	Customer - 12 per year	4,818.109597	1.120000	4,819.229597
Unmetered Scattered Load	Connection - 12 per year	20.559696	0.000000	20.559696
Sentinel Lighting	Connection - 12 per year	0.000000	0.000000	0.000000
Street Lighting	Connection - 12 per year	0.000000	0.000000	0.000000

### Volumetric Distribution Charge

<u>Class</u>	<u>Metric</u>	<u>Base Rate</u>	<u>Smart Meters Rate Adder</u>	<u>Final Base</u>
Residential	kWh	0.015745	0.000000	0.015745
General Service Less Than 50 kW	kWh	0.018154	0.000000	0.018154
General Service 50 to 699 kW	kW	2.340095	0.000000	2.340095
General Service 700 to 4,999 kW	kW	3.811367	0.000000	3.811367
Large Use > 5000 kW	kW	2.961199	0.000000	2.961199
Unmetered Scattered Load	kWh	0.018154	0.000000	0.018154
Sentinel Lighting	kW	3.875954	0.000000	3.875954
Street Lighting	kW	2.249431	0.000000	2.249431



**Instructions**

This worksheet shows the derivation of the Final distribution rates for all unique classes.

No input required.

**Monthly Service Charge**

<u>Class</u>	<u>Metric</u>	<u>Base Rate</u>	<u>Final Base</u>
Standby Power - APPROVED ON AN INTERIM BASIS	Customer - 12 per year	0.000000	0.000000
Embedded Distributor	Customer - 12 per year	0.000000	0.000000

**Volumetric Distribution Charge**

<u>Class</u>	<u>Metric</u>	<u>Base Rate</u>	<u>Final Base</u>
Standby Power - APPROVED ON AN INTERIM BASIS	Customer - 12 per year	1.507678	1.507678
Embedded Distributor	Customer - 12 per year	0.061279	0.061279



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**Purpose of this Worksheet:**  
Uniform Transmission rates have changed. This worksheet is a placeholder only at this time.

Method of Application **Uniform Percentage**

Uniform Percentage **11.256%**

**Rate Class** **Applied to Class**  
Residential **Yes**

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Network Service Rate	\$/kWh	0.004800	11.256%	0.000540	0.005340

Rate Class **Applied to Class**  
**General Service Less Than 50 kW** **Yes**

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Network Service Rate	\$/kWh	0.004300	11.256%	0.000484	0.004784

Rate Class **Applied to Class**  
**General Service 50 to 699 kW** **Yes**

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Network Service Rate	\$/kW	1.656700	11.256%	0.186480	1.843180

Rate Class **Applied to Class**  
**General Service 700 to 4,999 kW** **Yes**

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Network Service Rate	\$/kW	1.858000	11.256%	0.209138	2.067138

Rate Class **Applied to Class**  
**Large Use > 5000 kW** **Yes**

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Network Service Rate	\$/kW	2.102800	11.256%	0.236693	2.339493

Rate Class **Applied to Class**  
**Unmetered Scattered Load** **Yes**

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Network Service Rate	\$/kWh	0.004300	11.256%	0.000484	0.004784

Rate Class **Applied to Class**  
**Sentinel Lighting** **Yes**

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Network Service Rate	\$/kW	1.381200	11.256%	0.155469	1.536669

Rate Class **Applied to Class**  
**Street Lighting** **Yes**

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Network Service Rate	\$/kW	1.379400	11.256%	0.155267	1.534667





**Ontario Energy Board**  
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**2nd Generation Incentive Regulation Mechanism**

Method of Application

Uniform Percentage

Uniform Percentage

0.000%

Rate Class

Applied to Class

**Standby Power - APPROVED ON AN INTERIM BASIS**

Yes

Rate Description

Vol Metric

Current Amount

% Adjustment

\$ Adjustment

Final Amount

Rate Class

Applied to Class

**Embedded Distributor**

Yes

Rate Description

No

Current Amount

% Adjustment

\$ Adjustment

Final Amount



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**Purpose of this Worksheet:**  
Uniform Transmission rates have changed. This worksheet is a placeholder only at this time.

Method of Application      Uniform Percentage

Uniform Percentage      6.082%

**Rate Class**      **Applied to Class**

**Residential**      Yes

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.004500	6.082%	0.000274	0.004774

Rate Class      Applied to Class

**General Service Less Than 50 kW**      Yes

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.004000	6.082%	0.000243	0.004243

Rate Class      Applied to Class

**General Service 50 to 699 kW**      Yes

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.520900	6.082%	0.092501	1.613401

Rate Class      Applied to Class

**General Service 700 to 4,999 kW**      Yes

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.634900	6.082%	0.099435	1.734335

Rate Class      Applied to Class

**Large Use > 5000 kW**      Yes

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.889700	6.082%	0.114932	2.004632

Rate Class      Applied to Class

**Unmetered Scattered Load**      Yes

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.004000	6.082%	0.000243	0.004243

Rate Class      Applied to Class

**Sentinel Lighting**      Yes

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.267800	6.082%	0.077108	1.344908

Rate Class      Applied to Class

**Street Lighting**      Yes

Rate Description	Vol Metric	Current Amount	% Adjustment	\$ Adjustment	Final Amount
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.266200	6.082%	0.077010	1.343210



**Ontario Energy Board**  
Commission de l'énergie de l'Ontario

**2nd Generation Incentive Regulation Mechanism**

Method of Application

Uniform Percentage

Uniform Percentage

0.000%

Rate Class

Applied to Class

**Standby Power - APPROVED ON AN INTERIM BASIS**

Yes

Rate Description

Vol Metric

Current Amount

% Adjustment

\$ Adjustment

Final Amount

Rate Class

Applied to Class

**Embedded Distributor**

Yes

Rate Description

No

Current Amount

% Adjustment

\$ Adjustment

Final Amount



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### Instructions

This worksheet displays the final distribution rates and charges for all general classes.

No input required.

### Rate Class

#### Residential

Rate Description	Metric	Rate
Service Charge	\$	11.81
Distribution Volumetric Rate	\$/kWh	0.0157
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0053
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0048
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25



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### Instructions

This worksheet displays the final distribution rates and charges for all unique classes.

No input required.

Rate Class

#### Standby Power - APPROVED ON AN INTERIM BASIS

Rate Description	Metric	Rate
Service Charge	\$	0.00
Distribution Volumetric Rate	\$/kW	1.5077
Retail Transmission Rate – Network Service Rate	\$/kW	0
Retail Transmission Rate – Line and Transformation Connection Service R:	\$/kW	0

Rate Class

#### Embedded Distributor

Rate Description	Metric	Rate
Service Charge	\$	0.00
Distribution Volumetric Rate	\$/kW	0.0613
Retail Transmission Rate – Network Service Rate	\$/kW	0
Retail Transmission Rate – Line and Transformation Connection Service R:	\$/kW	0



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**Instructions**

Please enter the Total Loss Factors found on your current (Board-Approved) tariff schedule.

**Note:** Loss Factors must be entered in order for bill impacts to be calculated.

**LOSS FACTORS**

**Current**

Total Loss Factor - Secondary Metered Customer < 5,000 kW	1.0356
Total Loss Factor - Secondary Metered Customer > 5,000 kW	1.0145
Total Loss Factor - Primary Metered Customer < 5,000 kW	1.0253
Total Loss Factor - Primary Metered Customer > 5,000 kW	1.0045



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This worksheet provides a summary of how the monthly service and volumetric charges are calculated for each general class

	Fixed (\$)	Volumetric \$/kWh
<b>Residential</b>		
Current Rates	11.45	0.0157
Less Rate Adders		
Smart Meters Rate Adder	0.79	0.0000
Rate Rebalancing Adj		
K-factor Adjustment - General	-0.04	-0.0001
Federal Tax Adjustment General	-0.04	-0.0001
Price Cap Adj		
Price Cap Adjustment - General	0.12	0.0002
Smart Meters Rate Adder	1.12	0.0000
Applied For Rates	11.81	0.0157
	0.00	0.0000

	Fixed (\$)	Volumetric \$/kWh
<b>General Service Less Than 50 kW</b>		
Current Rates	21.29	0.0181
Less Rate Adders		
Smart Meters Rate Adder	0.79	0.0000
Rate Rebalancing Adj		
K-factor Adjustment - General	-0.08	-0.0001
Federal Tax Adjustment General	-0.08	-0.0001
Price Cap Adj		
Price Cap Adjustment - General	0.22	0.0002
Smart Meters Rate Adder	1.12	0.0000
Applied For Rates	21.68	0.0182
	0.00	0.0000

	Fixed (\$)	Volumetric \$/kW
<b>General Service 50 to 699 kW</b>		
Current Rates	104.11	2.3333
Less Rate Adders		
Smart Meters Rate Adder	0.79	0.0000
Rate Rebalancing Adj		
K-factor Adjustment - General	-0.41	-0.0093
Federal Tax Adjustment General	-0.41	-0.0093
Price Cap Adj		
Price Cap Adjustment - General	1.13	0.0255
Smart Meters Rate Adder	1.12	0.0000
Applied For Rates	104.74	2.3401
	0.00	0.0000

	Fixed (\$)	Volumetric \$/kW
<b>General Service 700 to 4,999 kW</b>		
Current Rates	1,435.59	3.8003
Less Rate Adders		
Smart Meters Rate Adder	0.79	0.0000
Rate Rebalancing Adj		
K-factor Adjustment - General	-5.74	-0.0152
Federal Tax Adjustment General	-5.74	-0.0152
Price Cap Adj		
Price Cap Adjustment - General	15.66	0.0415
Smart Meters Rate Adder	1.12	0.0000
Applied For Rates	1,440.10	3.8114
	0.00	0.0000

	Fixed (\$)	Volumetric \$/kW
<b>Large Use &gt; 5000 kW</b>		
Current Rates	4,804.91	2.9526
Less Rate Adders		
Smart Meters Rate Adder	0.79	0.0000
Rate Rebalancing Adj		
K-factor Adjustment - General	-19.22	-0.0118
Federal Tax Adjustment General	-19.22	-0.0118
Price Cap Adj		
Price Cap Adjustment - General	52.42	0.0322
Smart Meters Rate Adder	1.12	0.0000
Applied For Rates	4,819.23	2.9612

0.00 0.0000

	Fixed	Volumetric
	(\$)	\$/kWh
<b>Unmetered Scattered Load</b>		
Current Rates	20.50	0.0181
Less Rate Adders		
Smart Meters Rate Adder	0.00	0.0000
Rate Rebalancing Adj		
K-factor Adjustment - General	-0.08	-0.0001
Federal Tax Adjustment General	-0.08	-0.0001
Price Cap Adj		
Price Cap Adjustment - General	0.22	0.0002
Smart Meters Rate Adder	0.00	0.0000
Applied For Rates	20.56	0.0182
	0.00	0.0000

	Fixed	Volumetric
	(\$)	\$/kW
<b>Sentinel Lighting</b>		
Current Rates	0.00	3.8647
Less Rate Adders		
Smart Meters Rate Adder	0.00	0.0000
Rate Rebalancing Adj		
K-factor Adjustment - General	0.00	-0.0155
Federal Tax Adjustment General	0.00	-0.0155
Price Cap Adj		
Price Cap Adjustment - General	0.00	0.0422
Smart Meters Rate Adder	0.00	0.0000
Applied For Rates	0.00	3.8760
	0.00	0.0000

	Fixed	Volumetric
	(\$)	\$/kW
<b>Street Lighting</b>		
Current Rates	0.00	2.2429
Less Rate Adders		
Smart Meters Rate Adder	0.00	0.0000
Rate Rebalancing Adj		
K-factor Adjustment - General	0.00	-0.0090
Federal Tax Adjustment General	0.00	-0.0090
Price Cap Adj		
Price Cap Adjustment - General	0.00	0.0245
Smart Meters Rate Adder	0.00	0.0000
Applied For Rates	0.00	2.2494
	0.00	0.0000





## 2nd Generation Incentive Regulation Mechanism

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This worksheet provides a summary of how the monthly service and volumetric charges are calculated for each unique class

	Fixed	Volumetric
Standby Power - APPROVED ON AN INTERIM BASIS	(\$)	\$/kWh
Current Rates	0.00	1.5033
Rate Rebalancing Adj		
K-factor Adjustment - Unique	0.00	-0.0060
Federal Tax Adjustment Unique	0.00	-0.0060
Price Cap Adj		
Price Cap Adjustment - Unique	0.00	0.0164
Applied For Rates	0.00	1.5077
	<b>0.00</b>	<b>0.0000</b>

	Fixed	Volumetric
Embedded Distributor	(\$)	\$/kWh
Current Rates	0.00	0.0611
Rate ReBal Override	0	0
K-factor Adjustment - Unique	0.00	-0.0002
Federal Tax Adjustment Unique	0.00	-0.0002
Price Cap Adj		
Price Cap Adjustment - Unique	0.00	0.0007
Applied For Rates	0.00	0.0613
	0.00	0.0000



Previous	Forward	Table of Contents	Current Tariff Sheet	Proposed Tariff Sheet	Current & Proposed Tariff Sheets	Bill Impacts Generator
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**Instructions**

This worksheet calculates the bill impacts for all general rate classes.

**Residential**

Monthly Rates and Charges	Metric	Current Rate	Applied For Rate
Service Charge	\$	11.45	11.81
Service Charge Rate Rider(s)	\$	-	-
Distribution Volumetric Rate	\$/kWh	0.0157	0.0157
Distribution Volumetric Rate Rider(s)	\$/kWh	-	-
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0048	0.0053
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0045	0.0048
Wholesale Market Service Rate	\$/kWh	0.0052	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010	0.0010
Standard Supply Service – Administration Charge (if applicable)	\$	0.25	0.25

<b>Consumption</b>	<b>1,000 kWh</b>	<b>- kW</b>
<b>RPP Tier One</b>	<b>600 kWh</b>	<b>Load Factor</b>

**Loss Factor 1.0356**

	Volume	RATE \$	CHARGE \$	Volume	RATE \$	CHARGE \$	\$	%	% of Total Bill
Energy First Tier (kWh)	600	0.0560	33.60	600	0.0560	33.60	0.00	0.0%	28.17%
Energy Second Tier (kWh)	436	0.0650	28.34	436	0.0650	28.34	0.00	0.0%	23.76%
<b>Sub-Total: Energy</b>			<b>61.94</b>			<b>61.94</b>	<b>0.00</b>	<b>0.0%</b>	<b>51.93%</b>
Service Charge	1	11.45	11.45	1	11.81	11.81	0.36	3.1%	9.90%
Service Charge Rate Rider(s)	1	-0.09	-0.09	1	0.00	0.00	0.09	(100.0)%	0.00%
Distribution Volumetric Rate	1,000	0.0157	15.70	1,000	0.0157	15.70	0.00	0.0%	13.16%
Distribution Volumetric Rate Rider(s)	1,000	0.0000	0.00	1,000	0.0000	0.00	0.00	0.0%	0.00%
<b>Total: Distribution</b>			<b>27.06</b>			<b>27.51</b>	<b>0.45</b>	<b>1.7%</b>	<b>23.07%</b>
Retail Transmission Rate – Network Service Rate	1,036	0.0048	4.97	1,036	0.0053	5.49	0.52	10.5%	4.60%
Retail Transmission Rate – Line and Transformation Connection Service Rate	1,036	0.0045	4.66	1,036	0.0048	4.97	0.31	6.7%	4.17%
<b>Total: Retail Transmission</b>			<b>9.63</b>			<b>10.46</b>	<b>0.83</b>	<b>8.6%</b>	<b>8.77%</b>
<b>Sub-Total: Delivery (Distribution and Retail Transmission)</b>			<b>36.69</b>			<b>37.97</b>	<b>1.28</b>	<b>3.5%</b>	<b>31.84%</b>
Wholesale Market Service Rate	1,036	0.0052	5.39	1,036	0.0052	5.39	0.00	0.0%	4.52%
Rural Rate Protection Charge	1,036	0.0010	1.04	1,036	0.0010	1.04	0.00	0.0%	0.87%
Standard Supply Service – Administration Charge (if applicable)	1	0.25	0.25	1	0.25	0.25	0.00	0.0%	0.21%
<b>Sub-Total: Regulatory</b>			<b>6.68</b>			<b>6.68</b>	<b>0.00</b>	<b>0.0%</b>	<b>5.60%</b>
<b>Debt Retirement Charge (DRC)</b>	1,000	0.00700	7.00	1,000	0.00700	7.00	0.00	0.0%	5.87%
<b>Total Bill before Taxes</b>			<b>112.31</b>			<b>113.59</b>	<b>1.28</b>	<b>1.1%</b>	<b>95.24%</b>
<b>GST</b>	112.31	5%	5.62	113.59	5%	5.68	0.06	1.1%	4.76%
			<b>117.93</b>			<b>119.27</b>	<b>1.34</b>	<b>1.1%</b>	<b>100.00%</b>

**Rate Class Threshold Test**

**Residential**

	kWh	250	600	1,000	1,600	2,250
Loss Factor Adjusted kWh		259	622	1,036	1,657	2,331
	kW					
Load Factor						

**Energy**

Applied For Bill	\$ 14.50	\$ 35.03	\$ 61.94	\$ 102.30	\$ 146.11
Current Bill	\$ 14.50	\$ 35.03	\$ 61.94	\$ 102.30	\$ 146.11
\$ Impact	\$ -	\$ -	\$ -	\$ -	\$ -
% Impact	0.0%	0.0%	0.0%	0.0%	0.0%
% of Total Bill	37.9%	47.1%	51.9%	54.8%	56.3%

**Distribution**

Applied For Bill	\$ 15.73	\$ 21.23	\$ 27.51	\$ 36.93	\$ 47.13
Current Bill	\$ 15.28	\$ 20.78	\$ 27.06	\$ 36.48	\$ 46.68
\$ Impact	\$ 0.45	\$ 0.45	\$ 0.45	\$ 0.45	\$ 0.45
% Impact	2.9%	2.2%	1.7%	1.2%	1.0%
% of Total Bill	41.1%	28.5%	23.1%	19.8%	18.2%

**Retail Transmission**

Applied For Bill	\$ 2.61	\$ 6.29	\$ 10.46	\$ 16.73	\$ 23.54
Current Bill	\$ 2.41	\$ 5.79	\$ 9.63	\$ 15.41	\$ 21.68
\$ Impact	\$ 0.20	\$ 0.50	\$ 0.83	\$ 1.32	\$ 1.86
% Impact	8.3%	8.6%	8.6%	8.6%	8.6%
% of Total Bill	6.8%	8.5%	8.8%	9.0%	9.1%

**Delivery (Distribution and Retail Transmission)**

Applied For Bill	\$ 18.34	\$ 27.52	\$ 37.97	\$ 53.66	\$ 70.67
Current Bill	\$ 17.69	\$ 26.57	\$ 36.69	\$ 51.89	\$ 68.36
\$ Impact	\$ 0.65	\$ 0.95	\$ 1.28	\$ 1.77	\$ 2.31
% Impact	3.7%	3.6%	3.5%	3.4%	3.4%
% of Total Bill	47.9%	37.0%	31.8%	28.8%	27.2%

**Regulatory**

Applied For Bill	\$ 1.86	\$ 4.10	\$ 6.68	\$ 10.53	\$ 14.70
Current Bill	\$ 1.86	\$ 4.10	\$ 6.68	\$ 10.53	\$ 14.70
\$ Impact	\$ -	\$ -	\$ -	\$ -	\$ -
% Impact	0.0%	0.0%	0.0%	0.0%	0.0%
% of Total Bill	4.9%	5.5%	5.6%	5.6%	5.7%

**Debt Retirement Charge**

Applied For Bill	\$ 1.75	\$ 4.20	\$ 7.00	\$ 11.20	\$ 15.75
Current Bill	\$ 1.75	\$ 4.20	\$ 7.00	\$ 11.20	\$ 15.75
\$ Impact	\$ -	\$ -	\$ -	\$ -	\$ -
% Impact	0.0%	0.0%	0.0%	0.0%	0.0%
% of Total Bill	4.6%	5.6%	5.9%	6.0%	6.1%

**GST**

Applied For Bill	\$ 1.82	\$ 3.54	\$ 5.68	\$ 8.88	\$ 12.36
Current Bill	\$ 1.79	\$ 3.50	\$ 5.62	\$ 8.80	\$ 12.25
\$ Impact	\$ 0.03	\$ 0.04	\$ 0.06	\$ 0.08	\$ 0.11
% Impact	1.7%	1.1%	1.1%	0.9%	0.9%
% of Total Bill	4.8%	4.8%	4.8%	4.8%	4.8%

**Total Bill**

Applied For Bill	\$ 38.27	\$ 74.39	\$ 119.27	\$ 186.57	\$ 259.59
Current Bill	\$ 37.59	\$ 73.40	\$ 117.93	\$ 184.72	\$ 257.17
\$ Impact	\$ 0.68	\$ 0.99	\$ 1.34	\$ 1.85	\$ 2.42
% Impact	1.8%	1.3%	1.1%	1.0%	0.9%



## 2nd Generation Incentive Regulation Mechanism

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### Instructions

Enter the following allowances from your current Board-Approved Tariff Schedule

### Allowances

	<u>Metric</u>	<u>Current</u>
Transformer Allowance for Ownership - per kW of billing demand/month	\$/kW	-0.60
Primary Metering Allowance for transformer losses - applied to measured demand and energy	%	-1.0





## 2nd Generation Incentive Regulation Mechanism

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### Instructions

**This worksheet displays your current Board-Approved Retail Service Charges.**

#### Retail Service Charges (if applicable)

Retail Service Charges refer to services provided by a distributor to retailers or customers related to the supply of competitive electricity

	<u>Metric</u>	<u>Current</u>
One-time charge, per retailer, to establish the service agreement between the distributor and the retailer	\$	100.00
Monthly Fixed Charge, per retailer	\$	20.00
Monthly Variable Charge, per customer, per retailer	\$/cust.	0.50
Distributor-consolidated billing charge, per customer, per retailer	\$/cust.	0.30
Retailer-consolidated billing credit, per customer, per retailer	\$/cust. -	0.30
<b>Service Transaction Requests (STR)</b>		
Request fee, per request, applied to the requesting party	\$	0.25
Processing fee, per request, applied to the requesting party	\$	0.50
Request for customer information as outlined in Section 10.6.3 and Chapter 11 of the Retail Settlement Code directly to retailers and customers, if not delivered electronically through the Electronic Business Transaction (EBT) system, applied to the requesting party		
Up to twice a year		no charge
More than twice a year, per request (plus incremental delivery costs)	\$	2.00



**EB-2007-0541**

**IN THE MATTER OF** the *Ontario Energy Board Act*,  
1998, S.O. 1998, c.15 (Schedule B);

**AND IN THE MATTER OF** an application by Hydro One  
Brampton Networks Inc. for an order or orders approving  
or fixing just and reasonable distribution rates and other  
charges, to be effective May 1, 2007.

**BEFORE:** Paul Sommerville  
Presiding Member

Paul Vlahos  
Member

Ken Quesnelle  
Member

## **DECISION AND ORDER**

Hydro One Brampton Networks Inc. ("Hydro One Brampton") is a licensed distributor providing electrical service to consumers within its licensed service area. Hydro One Brampton filed an application with the Ontario Energy Board (the "Board") for an order or orders approving or fixing just and reasonable rates for the distribution of electricity and other charges, to be effective May 1, 2007.

Hydro One Brampton is one of 85 electricity distributors in Ontario that are regulated by the Board. To streamline the process for the approval of distribution rates and charges for these distributors, the Board issued its *Report of the Board on Cost of Capital and 2<sup>nd</sup> Generation Incentive Regulation for Ontario's Electricity Distributors* (the "Report") on December 20, 2006. The Report contained the relevant guidelines for 2007 rate adjustments ("the guidelines") for distributors applying for rates only on the basis of the cost of capital and 2<sup>nd</sup> generation incentive regulation mechanism policies set out in the Report.

Public notice of Hydro One Brampton's rate application was given through newspaper publication in Hydro One Brampton's service area. The evidence filed as part of the rate application was made available to the public. Both Hydro One Brampton and interested parties had the opportunity to file written submissions in relation to the rate application. The Board received no submissions. While the Board has considered the entire record in this rate application, it has made reference only to such evidence as is necessary to provide context to its findings.

Hydro One Brampton's rate application was filed on the basis of the guidelines. In fixing new rates and charges for Hydro One Brampton, the Board has applied the policies described in the Report.

After confirming the accuracy of the 2006 rate tariff and accompanying materials submitted in the rate application, the Board applied its approved price cap index adjustment to distribution rates (fixed and variable) uniformly across all customer classes. The price cap index is calculated as a price escalator less an X-factor of 1.0%, intended to represent input price and productivity trends. Based on the final 2006 data published by Statistics Canada, the Board has established the price escalator to be 1.9%. The resulting price cap index adjustment is therefore 0.9%.

The large corporation tax allowance component that was included in 2006 rates was removed prior to the application of the price cap index adjustment.

The price cap index adjustment was not applied to the following components of the rates:

- the specific service charges;
- the regulatory asset recovery rate rider; and
- the smart meter rate adder (an amount in the fixed components of the rates associated with smart meter cost recovery).

Hydro One Brampton requested an amount for smart meter costs. The Board has approved an amount of \$0.67 per month per metered customer. Hydro One Brampton's variance accounts for smart meter program implementation costs, previously authorized by the Board, are continued. As the notice of this application indicated, the Board will be holding a combined proceeding to consider, among other things, appropriate recovery of smart meter costs.



Hydro One Brampton's standby rates were approved as interim by the Board in its 2006 distribution rates order. The Board is still examining the issues related to standby rates, and is not in a position to make a final order for these rates at this time. The standby rates will be adjusted by the price cap index but remain interim.

The Board has made the necessary adjustments to Hydro One Brampton's filed 2006 Tariff of Rates and Charges to produce a new Tariff of Rates and Charges to be effective May 1, 2007. The Board finds the rates and charges in the Tariff of Rates and Charges attached as Appendix A to this decision to be just and reasonable.

**THE BOARD ORDERS THAT:**

1. The Tariff of Rates and Charges set out in Appendix A of this order is approved, effective May 1, 2007, for electricity consumed or estimated to have been consumed on and after May 1, 2007.
2. The Tariff of Rates and Charges set out in Appendix A of this order supersedes all previous distribution rate schedules approved by the Ontario Energy Board for Hydro One Brampton, and is final in all respects, except for the standby rates which are approved as interim.
3. Hydro One Brampton shall notify its customers of the rate changes no later than with the first bill reflecting the new rates.

**DATED** at Toronto, April 12, 2007.

**ONTARIO ENERGY BOARD**

*Original signed by*

Peter H. O'Dell  
Assistant Board Secretary

Appendix A

EB-2007-0541

April 12, 2007

ONTARIO ENERGY BOARD

# Hydro One Brampton Networks Inc.

## TARIFF OF RATES AND CHARGES

### Effective May 1, 2007

**This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors**

EB-2007-0541

#### APPLICATION

- The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Codes, Guidelines or Orders of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.
- No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code, Guideline or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.
- This schedule does not contain any rates and charges relating to the electricity commodity (e.g. the Regulated Price Plan).

#### EFFECTIVE DATES

- DISTRIBUTION RATES - May 1, 2007 for all consumption or deemed consumption services used on or after that date.  
SPECIFIC SERVICE CHARGES - May 1, 2007 for all charges incurred by customers on or after that date.  
LOSS FACTOR ADJUSTMENT – May 1, 2007 unless the distributor is not capable of prorating changed loss factors jointly with distribution rates. In that case, the revised loss factors will be implemented upon the first subsequent billing for each billing cycle.

#### SERVICE CLASSIFICATIONS

##### **Residential**

This classification applies to an account where the electricity is used supplied exclusively to single-family dwelling units for domestic or household purposes, including seasonal occupancy. This includes, but is not limited to, detached houses, one unit of a semi-detached, duplex, triplex or quadruplex house, with a residential zoning. Separately metered dwellings within a town house complex also qualify as residential customers.

##### **General Service Less than 50 kW**

This classification applies to a non residential account less whose average monthly maximum demand is less than, or is forecast to be less than, 50 kW. Multi-unit residential establishments such as apartment buildings supplied through one service (bulk metered) shall normally be classified as general service.

Where service is provided to combined residential and business, or residential and agricultural, whether seasonal or all-year premises, and the wiring does not provide for separate metering, the service shall normally be classed as general service.

##### **General Service 50 to 699 kW**

This classification applies to a non residential account whose average monthly maximum demand used for billing purposes is equal to or greater than, or is forecast to be equal to or greater than, 50 kW but less than 700 kW.

##### **Greater Service 700 to 4,999 kW**

This classification applies to a non residential account whose average monthly maximum demand used for billing purposes is equal to or greater than, or is forecast to be equal to or greater than, 700 kW but less than 5,000 kW.

##### **Large Use**

This classification applies to an account whose average monthly maximum demand over 12 consecutive months used for billing purposes is equal to or greater than 5,000 kW, or is forecast to be equal to or greater than 5,000 kW.

##### **Unmetered Scattered Load**

This classification applies to an account whose average monthly maximum demand is less than, or is forecast to be less than, 50 kW and the consumption is unmetered. Such connections include cable TV power packs, bus shelters, telephone booths, traffic lights, railway crossings, etc. The level of the consumption will be agreed to by the distributor and the customer, based on detailed manufacturer information/documentation with regard to electrical consumption of the unmetered load or periodic monitoring of actual consumption.

# Hydro One Brampton Networks Inc.

## TARIFF OF RATES AND CHARGES

### Effective May 1, 2007

**This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors**

EB-2007-0541

**Standby Power**

This classification refers to an account that has Load Displacement Generation and requires the distributor to provide back-up service.

**Sentinel Lighting**

This classification refers to accounts that are an unmetered lighting load supplied to a sentinel light.

**Street Lighting**

All service supplied to roadway lighting equipment owned by or operated by the City of Brampton, Regional Municipality of Peel, or the Ministry of Transportation, controlled by photo cells. The consumption for these customers will be based on the calculated connected load times the required lighting times established in the approved OEB street lighting load shape template.

**Embedded Distributor**

This classification applies to an electricity distributor licensed by the Board, that is provided electricity by means of this distributor's facilities.

**MONTHLY RATES AND CHARGES****Residential**

Service Charge	\$	11.45
Distribution Volumetric Rate	\$/kWh	0.0159
Regulatory Asset Recovery	\$/kWh	0.0020
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0059
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0048
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**General Service Less Than 50 kW**

Service Charge	\$	21.40
Distribution Volumetric Rate	\$/kWh	0.0183
Regulatory Asset Recovery	\$/kWh	0.0013
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0053
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0043
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**General Service 50 to 699 kW**

Service Charge	\$	105.14
Distribution Volumetric Rate	\$/kW	2.3593
Regulatory Asset Recovery	\$/kW	0.2855
Retail Transmission Rate – Network Service Rate	\$/kW	2.0303
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.6301
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

# Hydro One Brampton Networks Inc.

## TARIFF OF RATES AND CHARGES

### Effective May 1, 2007

**This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors**

EB-2007-0541

#### General Service 700 to 4,999 kW

Service Charge	\$	1,451.43
Distribution Volumetric Rate	\$/kW	3.8426
Regulatory Asset Recovery	\$/kW	0.3003
Retail Transmission Rate – Network Service Rate – Interval Metered	\$/kW	2.2770
Retail Transmission Rate – Line and Transformation Connection Service Rate – Interval Metered	\$/kW	1.7523
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

#### Large Use

Service Charge	\$	4,858.22
Distribution Volumetric Rate	\$/kW	2.9854
Regulatory Asset Recovery	\$/kW	0.3673
Retail Transmission Rate – Network Service Rate – Interval Metered	\$/kW	2.5770
Retail Transmission Rate – Line and Transformation Connection Service Rate – Interval Metered	\$/kW	2.0254
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

#### Unmetered Scattered Load

Service Charge (per customer)	\$	20.73
Distribution Volumetric Rate	\$/kWh	0.0183
Regulatory Asset Recovery	\$/kWh	0.0013
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0053
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0043
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

#### Standby Power – APPROVED ON AN INTERIM BASIS

Standby Charge – for a month where standby power is not provided. The charge is applied to the contracted amount (e.g. nameplate rating of generation facility).	\$/kW	1.52
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#### Sentinel Lighting

Distribution Volumetric Rate	\$/kW	3.9077
Regulatory Asset Recovery	\$/kW	(1.6042)
Retail Transmission Rate – Network Service Rate	\$/kW	1.6926
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.3588
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

#### Street Lighting

Distribution Volumetric Rate	\$/kW	2.2678
Regulatory Asset Recovery	\$/kW	0.3095
Retail Transmission Rate – Network Service Rate	\$/kW	1.6904
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.3571
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

# Hydro One Brampton Networks Inc.

## TARIFF OF RATES AND CHARGES

### Effective May 1, 2007

**This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors**

EB-2007-0541

**Embedded Distributor**

Distribution Wheeling Service Rate	\$/kW	0.0618
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**Specific Service Charges**

## Customer Administration

Arrears certificate	\$	15.00
Pulling post dated Cheques	\$	15.00
Duplicate invoices for previous billing	\$	15.00
Request for other billing information	\$	15.00
Easement letter	\$	15.00
Income tax letter	\$	15.00
Account history	\$	15.00
Credit reference/credit check (plus credit agency costs)	\$	15.00
Returned cheque charge (plus bank charges)		\$
15.00		
Legal letter charge	\$	15.00
Account set up charge/change of occupancy charge (plus credit agency costs if applicable)	\$	30.00
Special meter reads	\$	30.00
Special Billing Service (aggregation)	\$	125.00
Special Billing Service (sub-metering charge per meter)		\$
25.00		

## Non-Payment of Account

Late Payment - per month	%	1.50
Late Payment - per annum	%	19.56
Collection of account charge - no disconnection	\$	30.00
Disconnect/Reconnect at meter - during regular hours	\$	65.00
Disconnect/Reconnect at meter - after regular hours	\$	185.00
Disconnect/Reconnect at pole - during regular hours	\$	185.00
Disconnect/Reconnect at pole - after regular hours	\$	415.00
Disconnect/Reconnection for >300 volts - during regular hours	\$	60.00
Disconnect/Reconnection for >300 volts - after regular hours	\$	155.00

Owner Requested Disconnection/Reconnection - during regular hours	\$	120.00
Owner Requested Disconnection/Reconnection - after regular hours	\$	155.00
Specific Charge for Access to the Power Poles – per pole/year	\$	22.35

## Allowances

Transformer Allowance for Ownership - per kW of billing demand/month	\$/kW	(0.60)
Primary Metering Allowance for transformer losses – applied to measured demand and energy	%	(1.00)

**LOSS FACTORS**

Total Loss Factor – Secondary Metered Customer < 5,000 kW	1.0356
Total Loss Factor – Secondary Metered Customer > 5,000 kW	1.0145
Total Loss Factor – Primary Metered Customer < 5,000 kW	1.0253
Total Loss Factor – Primary Metered Customer > 5,000 kW	1.0045



**EB-2007-0063**

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, (Schedule B);

**AND IN THE MATTER OF** applications by electricity distribution companies for approval of a smart meter rate adder;

**AND IN THE MATTER OF** a combined proceeding initiated by the Ontario Energy Board pursuant to sections 19(4), 21(1), 21(5) and 78(3.03) of the *Ontario Energy Board Act, 1998* to determine issues related to the recovery of costs incurred by distributors and associated with authorized discretionary metering activities.

**BEFORE:** Gordon Kaiser  
Vice Chair, Presiding Member

Ken Quesnelle  
Member

Cathy Spoel  
Member

**DECISION WITH REASONS**

August 8, 2007

This combined proceeding was initiated to review costs incurred by thirteen electricity distributors for certain smart metering activities. For the reasons stated below the Board finds that the costs were prudently incurred and allows recovery of the costs. These costs are set out in Appendix "A" to this decision. Not all of the applicants have requested rate increases at this time.

This proceeding serves not only to determine cost recovery, but also to provide guidance to other Ontario utilities that will be installing smart meters in the near future. For reasons of confidentiality discussed later in this Decision, not all costs are itemized. The Board believes that aggregate costs offer sufficient disclosure. The costs allowed are based upon the actual costs incurred year-to-date, notwithstanding the fact that some utilities requested recovery of forecasted costs.

## Background

**The Combined Proceeding:** In January of 2007, twelve licensed distributors authorized by Ontario Regulation 427/06 to conduct discretionary metering activities filed applications pursuant to section 78 of the *Ontario Energy Board Act, 1998* for the approval of distribution rates. These applications included a smart metering rate adder to be effective as of May 1, 2007.

The twelve distributors are Chatham-Kent Hydro Inc., Enersource Hydro Mississauga Inc., Horizon Utilities Corporation, Hydro One Brampton Networks Inc., Hydro One Networks Inc., Hydro Ottawa Limited, Middlesex Power Distribution Corporation, Milton Hydro Distribution Inc., PowerStream Inc., Tay Hydro Electric Distribution Co. Inc., Toronto Hydro-Electric System Limited, and Veridian Connections Inc.

On March 26, 2007, the Board received an application from Toronto Hydro-Electric System Limited pursuant to section 78 of the Act for rate adjustments related to smart metering activities and Conservation and Demand Management ("CDM") programs. The Board has decided to consider Toronto's smart metering costs in this Combined Proceeding. The Board issued a Notice of Combined Proceeding establishing this proceeding to determine the prudence and recovery of costs associated with smart



metering activities for the twelve licensed distributors referred to above, and a thirteenth licensed distributor, Newmarket Hydro Limited, that has been authorized by regulation to conduct discretionary metering activities. These thirteen licensed distributors are deemed to be applicants in this Combined Proceeding.

On June 1, 2007 the Board heard submissions from the parties on contested issues and proposed minimum filing requirements. The Board issued its oral Decision with respect to these matters on June 1, 2007<sup>1</sup>. On June 5, 2007 the Board issued Procedural Order No. 3 which set out the final Issues List, the Minimum Filing Requirements and the Exhibit List. Procedural Order No. 4 issued on June 11, 2007 granted parties an opportunity to object to the applicants' requests for confidentiality with respect to certain evidence. The Board also gave the applicants an opportunity to reply to any such objections and attached a timetable for the examination of witness panels.

On July 10, 2007 the Board issued Procedural Order No. 5 calling for oral submissions on the issue of confidentiality and oral reply submissions by the applicants.

**The Smart Metering Initiative:** Before proceeding to consider the relief sought by the thirteen applicants, it is important to put the smart metering initiative ("SMI") in context. This is a Government mandated program. The Ontario Government has committed to install 800,000 smart meters in homes and small businesses by 2007 and throughout Ontario by 2010. The Government's policy, as evidenced through recent legislative amendment and regulatory initiative has clearly been to use electricity distributors to deploy smart meters in Ontario.

The evidence submitted by the thirteen utilities in support of their cost recovery requests indicates that over one million smart meters will be installed by the end of 2007. The number for each utility is set out in Appendix "B".

Ten utilities<sup>2</sup> included specific expenditures on smart meters in their 2006 electricity distribution rate ("EDR") applications. The spending was over and above the spending

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<sup>1</sup> Transcript Volume: Issues Day, page 57 line 28 to page 58 line 6

<sup>2</sup> These are: Bluewater Power Distribution, ELK Energy, Enersource Hydro Mississauga, Essex Powerlines, Festival Hydro, Horizon, Kingston Electricity Distribution, Hydro Ottawa, Toronto Hydro, and Veridian Connections. A further 11 utilities who are not named as applicants in this proceeding have also submitted smart meter plans with their 2006 rate applications.

on pilot programs previously approved as part of the CDM 3<sup>rd</sup> tranche initiatives<sup>3</sup>. Of these 10 utilities, four also requested variance accounts to track any differences between planned and actual spending on smart meters.

In its Decision of March 21, 2006<sup>4</sup>, the Board determined that utilities that had installed meters and requested rate relief should be allowed \$3.50 per meter for each month during the rate year that the meter was installed (that is, \$3.50 per meter per installed month).

The Board also ruled that utilities that had not proposed any expenditures for smart meters in 2006 should include the amount of \$0.30 per residential customer per month in their 2006 rates. The Board concluded that given the increased need for electricity and the importance of conservation, specific funding should be included in 2006 rates for all Ontario utilities, stating that this would be an important step in the development of smart metering technology and would increase the effort and commitment by both utilities and technology suppliers.

Subsequently, the Government enacted regulations under the *Electricity Act, 1998* to prescribe the class of consumers and criteria for the smart meters, to authorize specific distributors to conduct discretionary metering activities, and to identify priority installations. Regulations were also made under the *Ontario Energy Board Act, 1998* prescribing conditions for cost recovery.

In January 2007, the Board provided filing information for smart meter funding to be included in 2007 electricity distribution rates. The Board also approved the continuation in 2007 rates of \$0.30 per residential customer per month for utilities not authorized to conduct smart metering activities in 2007. For those 13 utilities authorized by regulation to incur expenditures for smart meters in 2007, the Board approved 12 applications for a rate adder equal to the returns that would be earned on an equivalent fixed asset if that

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<sup>3</sup> In previous individual Decisions for 2005 rates, the Board approved spending on CDM programs that was linked to each distributor's third installment (or tranche) of the allowed Market Based Rate of Return.

<sup>4</sup> EB-2005-0529, March 21, 2006

asset were, in fact, added to rate base<sup>5</sup>. The rate orders indicated that the Board would hold a combined proceeding to consider appropriate recovery of smart meter costs.

As a result of the funding through 2006 and 2007 rates, a number of utilities in this proceeding will not require rate increases to cover smart meter costs incurred to date. In such cases, the costs have been effectively “pre-funded” through Orders for 2006 and 2007 rates. The funding received to date broken down by utility is set out in Appendix “C”. The Board has received requests for rate increases by only three utilities, Toronto Hydro, Chatham-Kent and Middlesex.

## Confidentiality

At the beginning of this hearing the Board heard motions on the need to maintain confidentiality on the prices paid for smart meters, as well as deployment costs. A similar request was made regarding the contractual provisions. The requests were made by the major suppliers to the thirteen utilities, Elster Metering, a Division of Canadian Metering Co. Inc. (“Elster”), Ozz Corporation and Trilliant Networks Canada Inc. (“Ozz/Trilliant”), Sensus Metering Systems Inc. (“Sensus”) and Tantalus Systems Corp. (“Tantalus”). Submissions were also made by some of the suppliers that were not successful in securing orders for equipment or services from the thirteen applicant utilities.

To a large degree the utilities supported the requests of their suppliers. Many of them admitted, however, that their contracts provided that such information would be released if required by a Board Order.

As a general rule, the Board is reluctant to receive information on a confidential basis, particularly where the prudence of large capital expenditures is involved. It is significant however, that the request for confidentiality was not opposed by the intervenors. In order to proceed in an efficient fashion, at the outset of the proceeding after hearing all parties’ submissions on the issue of confidentiality, the Board ruled that it would hear all of the evidence *in camera* and make a decision after hearing all of the evidence as to

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<sup>5</sup> All utilities except Newmarket applied for a smart metering rate adder in accordance with the Addendum for Smart Metering Rates to the Report of the Board on 2<sup>nd</sup> Generation Incentive Regulation for Ontario’s Electricity Distributors dated January 29, 2007

what information should be disclosed publicly. The Board specifically excluded vendors of smart meter systems and all utilities other than the thirteen applicants. All other parties were eligible to attend the *in camera* proceeding and have access to confidential transcripts, provided that they signed the Board's standard form of Declaration and Undertaking for maintaining confidentiality.

The Board heard further submissions on confidentiality on July 12<sup>th</sup>, the final day for arguments. The general consensus was that the public interest could be met by bundling smart meter costs on a cost per installation basis and publicly disclosing only these bundled costs.

While disclosure on the public record was limited during the proceeding, the Board notes that there was a wide ranging examination by a number of intervenor groups on smart meter costs throughout the hearing. Four customer groups were involved in the hearing.

It is rare for an entire proceeding to be held *in camera*, but this proceeding faces unusual circumstances. As this Decision indicates, the purchase of smart meters by the thirteen utilities involved a complicated competitive tendering process. The Board was advised that a similar competitive tendering process will likely be employed by the rest of the Ontario utilities. This process may, of course, be expedited by the experience gained with the first thirteen utilities. However, the Board heard that the competitive positions of the suppliers would be eroded if the prices charged to the thirteen utilities were disclosed. The Board accepts this position. It is important that the tendering and bidding processes continue to be competitive. The Board also recognized that none of the intervenors opposed maintaining confidentiality for the evidence and that intervenors representing four major consumer groups had access to all of the information. The Board finds that it is in the public interest that the prices charged to the applicants, including unit prices, installation costs and the contractual terms, be kept confidential. However, the aggregated per unit installed prices will be part of the Decision.

## **The Issues**

On June 1, 2007, the Board issued a Decision defining the issues in this case. Those issues are set out in Appendix "A" to the Procedural Order of June 5, 2007 and include

cost recovery related to Minimum Functionality pursuant to Ontario Regulation 426/06, including the cost recovery timeline. The other issues include the prudence of costs incurred, the mechanism for resetting rates to recover costs found to be prudent and the regulatory treatment of stranded meter costs. These issues also included certain accounting procedures such as the mechanism for clearing variance accounts and the mechanism for resetting smart meter costs on a go-forward basis.

This Decision also deals with the mechanism for dealing with certain costs that are not otherwise part of this combined proceeding, such as the prudence of Toronto Hydro's costs associated with smart meter deployment for certain mid-size commercial customers. This last issue was unique to Toronto Hydro and arose from a separate application that the utility filed with the Board. That application, as previously indicated, was combined in this proceeding.

## **Relief Requested**

All of the applicants in this proceeding requested orders approving:

1. The Applicants' interpretation of Minimum Functionality.
2. The Applicants' prudence in the purchasing of smart meters.
3. The Applicants' proposed methodology for dealing with stranded smart meter costs.
4. The Applicants' proposed methodology for recovering smart meter costs through rates.
5. The Applicants' proposed accounting procedures related to the smart meter costs.

Each of these matters is dealt with in turn in this Decision. Certain other issues unique to certain utilities are dealt with later in the Decision.

## Minimum Functionality

On August 10, 2006 the Government of Ontario issued Ontario Regulation 425/06 (Criteria and Requirements for Meters and Metering Equipment, Systems and Technology) made under the *Electricity Act, 1998* which sets out the minimum functionality for advanced metering infrastructure (“AMI”) in the Province of Ontario for residential and small general service customers. With one exception (as noted above), the consideration of cost recovery for the SMI in this proceeding was limited to the recovery of smart meter costs relating to functionality that does not exceed the minimum functionality adopted in Ontario Regulation 425/06.

In the case of capital costs, the Board has determined that there are fourteen cost categories in relation to smart meter minimum functionality. These are set out in Appendix “A” to this Decision. The evidence provided to the Board in this proceeding shows that the majority of the costs relating to smart metering are capital costs. There was also evidence, however, of some operation, maintenance and administration (“OM&A”) costs. The categories of OM&A costs are also identified in Appendix “A” to this Decision.

As indicated, this proceeding relates only to the recovery of smart meter costs associated with minimum functionality. Costs in addition to minimum functionality can be recovered as part of distribution rates in an individual utility’s next rate case. Those costs may include web presentment, the Customer Information System integration with the Meter Data Management/Meter Data Repository, consumer education, re-engineering business practices and integration with retailers. A diagram which was provided in evidence in this proceeding that describes the Ontario Smart Metering System is set out in Appendix “D” to this Decision. The Board heard from several parties that the area within the box titled “Advanced Metering Infrastructure (AMI)” defines minimum functionality. The Board agrees.

## The Procurement Process

A number of utilities were asked by intervenors if they had conducted a cost benefit study regarding their smart meter installation. In all cases utilities responded that they had not because this is a Government mandated program. The Board accepts that response.

The Board is required however, to perform a prudence analysis regarding the expenditures incurred. The Board conducted a combined hearing in part to allow the Board to examine the different technologies deployed by different utilities, as well as the different cost implications. At a high level the Board found that the evidence provided by the utilities demonstrates that they acted in a professional manner and exercised the necessary due diligence in their smart meter purchasing decisions. The evidence provided shows that in many cases the utilities have maximized buying economies through buying groups and in all cases where buying groups were used, the members of the buying group received the same price, regardless of their size.

A prudence analysis relates not only to the price paid for goods and services purchased, but also to the procurement process itself.

The procurement process with respect to the purchase of smart meters and related equipment and services in this Province has been unique. The Government was extensively involved. A number of regulations were enacted circumscribing the activities of the utilities including Ontario Regulations 425/06, 426/06 and 427/06. Among other things, these regulations identify the thirteen utilities authorized to undertake smart metering activities in the Province as well as the minimum functionality of the smart meter system.

The thirteen distributors authorized to purchase smart meters in the first phase of the Government's initiative ultimately formed four different buying groups as set out in Appendix "B". The four successful suppliers were Elster, OZZ/Trilliant, Sensus and Tantalus. Appendix "B" also describes the smart meter technology offered by each of these suppliers.

The largest of the buying groups was formed by the members of the Coalition of Large Distributors (“CLD”) consisting of Toronto Hydro, Hydro Ottawa, Horizon, PowerStream, Veridian and Enersource.

The procurement process followed by each of the buying groups as provided in the evidence is identified in the following sub-sections. The Board accepts this evidence.

**The CLD Group:** The CLD Group stated that the Government, through the Ministry of Energy, was heavily involved in the procurement process. The Ministry of Energy had representation at CLD meetings and retained final approval before the release of any procurement specifications. The Government determined by Regulation that each of the CLD members was authorized to conduct its smart meter program pursuant to this procurement process.

Each CLD member assigned a metering representative to develop the technical requirements of a document that came to be called the Request for Pre-qualification (“RFPQ”). The Ministry recommended a procurement specialist (Partnering and Procurement Inc. or “PPI”) to assist the CLD and Ministry with the development of the RFPQ. The primary objective of this exercise was to develop a procurement process that would be fair and transparent to potential vendors and allow for comprehensive review of all potential technical options. The PPI, with input from the CLD and Ministry, developed the score sheets that were used to conduct the evaluations of the various bidders into the process.

Enersource took the lead in developing the RFPQ document and the CLD and PPI continued to review the requirements established by the Ministry and to identify their own implementation requirements. This work continued through April, 2006, with the PPI and the Ministry participating on a regular basis culminating in a draft RFPQ document at the end of April.

The CLD agreed with the Ministry request to have a Fairness Commissioner review the RFPQ and retained Knowles Consultancy Services for this purpose. This company was already under retainer to the Province of Ontario. The role of the Fairness Commissioner was to ensure that the AMI proponents disclose all actual or potential conflicts of interest, and that the RFPQ process was managed and completed in an



open, fair and transparent manner. The CLD developed a Code of Conduct to be signed by all potential vendors to address these considerations.

On May 2, 2006 the RFPQ document was released and posted on the MERX website (a website designed to invite bids on public sector competitive procurement processes). In total, 22 submissions were received by the CLD. The other members of the core CLD team reviewed the submissions for compliance and some vendors were rejected as non-compliant. The Elster smart meter system was ultimately chosen by five of the six CLD members.

As noted above, PowerStream, as a CLD member, participated fully in the RFPQ process. PowerStream testified that it then entered into negotiations with three of the qualified suppliers to satisfy its individual requirements and secure the best pricing. PowerStream ultimately selected Sensus as most closely matching all of its requirements for both technology and price.

**Newmarket and Tay:** Newmarket and Tay were not directly involved with the CLD's RFPQ process, but adopted that process once the five suppliers were qualified. Like PowerStream, Newmarket and Tay entered into negotiations with three of the qualified suppliers. Newmarket and Tay also ultimately selected Sensus as the preferred technology. Although PowerStream and Newmarket and Tay did not formally combine to negotiate with Sensus, they were able to achieve a commitment from the supplier to offer each utility the same price based on the combined volumes for PowerStream, Newmarket and Tay. Newmarket and Tay met with the Ministry of Energy staff to discuss their ability to rapidly deploy smart metering technology and were subsequently named as priority installations in Ontario Regulation 428/06. Their deployment plans were filed with the Minister on June 26, 2006. Ontario Regulation 427/06 authorized Newmarket and Tay to undertake smart meter deployment. They filed their smart meter deployment plans with the Minister of Energy.

**Hydro One Networks Inc. and Hydro One Brampton Networks Inc.:** Hydro One Networks' procurement process began with a request for proposal ("RFP") issued in March 2005. Hydro One's RFP requested proposals for the provision of smart meters for all or a part of Hydro One's smart meter deployment. Hydro One evaluated the responses to the RFP based on the following criteria: quality of the solution, capability of

the proponent, qualification of the vendor personnel and pricing. Hydro One indicated that Ozz/Trilliant achieved the highest overall evaluation score of all suppliers.

Ontario Regulation 427/06 authorized Hydro One to conduct a smart meter program as long as it did so in accordance with the March 2005 RFP. The regulation also authorized Hydro One Brampton to conduct smart metering activities. Both companies followed the March 2005 RFP process as required.

**Milton:** Milton began installing smart meters on all new residential building in 2003 using the only technology approved by Measurement Canada at the time. That technology is now provided by Ozz/Trilliant. Milton reviewed additional technologies as they received Measurement Canada approval, but chose to remain with Ozz/Trilliant. Milton indicated that they were able to obtain the same volume discount pricing Ozz/Trilliant offered to Hydro One.

Milton testified that it will also buy meter reading services from Ozz/Trilliant rather than buying the meter reading software purchased by Hydro One. Milton was named as a priority installation in Ontario Regulation 428/06, and filed its deployment plans with the Minister in June 2006. Ontario Regulation 427/06 authorized Milton to undertake smart meter deployment in accordance with the plan filed with the Ministry.

**Chatham-Kent and Middlesex:** Chatham-Kent and Middlesex, like Milton, Newmarket and Tay, are priority installations named in Ontario Regulation 428/06. Like Milton, Chatham-Kent began to assess smart meter technologies in 2004 prior to the Government's pronouncements with respect to the SMI. Chatham-Kent testified that it assessed four technologies before selecting Tantalus as the technology supplier for a pilot project. As part of its evidence, Chatham-Kent provided a study by Deloitte Inc. that reviewed the costs and benefits of the pilot, and calculated the cost estimates for full implementation. The results of this analysis were provided to the Ministry of Energy to demonstrate Chatham-Kent's ability to rapidly deploy the full complement of smart meters in its service areas. The deployment plans were provided to the Minister in August 2006. Chatham-Kent indicated that it negotiated a high volume discount with Tantalus to achieve significant price reductions from the pilot project pricing for both Chatham-Kent and Middlesex.

## The Costs

The central issue before the Board in this proceeding relates to an examination of the costs that the thirteen utilities incurred for the acquisition and installation of smart meters and related equipment. As indicated, the Board has found that the procurement processes undertaken by the thirteen utilities met a very high standard. The Government has authorized these thirteen utilities to install smart meters on the basis of these procurement processes.

Some intervenor groups claim that the prudence analysis conducted by the Board at this time should be preliminary and the matter should be revisited in a subsequent proceeding. The Board does not believe that this is desirable. This combined proceeding has resulted in adequate evidence and a careful examination of all relevant factors. Although this Panel is aware that it is not making any determinations on prudence of future spending on smart meters by utilities, this Decision can and should provide guidance to utilities making future purchasing decisions on smart meters in the remaining areas of the province.

The actual cost per installation for each of the applicant utilities is set out in Appendix "A". The Board heard evidence that the per unit installation costs can vary depending on the geographical nature of the service area and the extent to which meters have been deployed. This makes cost comparisons difficult.

The Board accepts that it is more expensive to install smart meters in a rural area than an urban area. The Board also accepts the evidence that it is more expensive to install meters in areas characterized by older construction as opposed to new subdivisions. In fact, a number of utilities have chosen to focus on new subdivisions for their initial deployment. As a result, their initial cost per installation may well be lower than the average for the entire system once full deployment is completed.

Other factors can materially impact per unit installation costs such as the number of meters installed to date and the degree of upfront costs. Hydro One's costs, for example, are high compared to others. Hydro One testified that this reflects the rural nature of their territory, high upfront costs and the fact that Hydro One has installed relatively few meters. This means that the installation cost in the first phase of this initiative is relatively high. The Board agrees that there is reason to believe that once

the Hydro One program is completed the average cost per installation will be substantially lower.

The Board feels that a special comment is warranted with respect to the Hydro One expenditures on the Capgemini contract for project management. Regarding the price of that contract, Counsel for the School Energy Coalition says “this is so far out of whack with all the other applicants to warrant special scrutiny”. SEC added that Hydro One has substantial internal management resources and is likely the most experienced utility in dealing with big projects. Accordingly, it is hard to understand why the Company had to retain Capgemini at such a large fee. SEC suggests that the costs should be deferred and Hydro One should be required to come back to the Board in its 2008 rate application with further and better evidence.

The Board has some sympathy with the submissions of the School Energy Coalition on this issue. The Capgemini contract represents a substantial cost. The Board recognizes that this is an up-front cost, but that is also true of project management costs for most utilities.

Hydro One will only install half the number of meters that Toronto Hydro is required to install. Toronto Hydro will, by the end of 2007, install 400,000 smart meters, one-half the entire Provincial target. But the Hydro One up-front project management costs are three times the project management costs of Toronto Hydro.

The Board will allow half of Hydro One’s project management costs incurred to date with an invitation to Hydro One to apply for the remaining amount with further and better evidence to justify the prudence of this cost at the time of its 2008 rate application.

In the case of all the utilities the Board finds that the external costs incurred were the result of a vigorous, successful and detailed procurement program. We also find that the internal costs were assigned in a manner consistent with standard rate making procedures.

There were a number of questions on internal utility costs related to smart meters, including suggestions that the utilities were double counting. That is, that internal personnel used for smart meter installations were existing employees whose costs were already included in rates. The utilities explained that these costs were capitalized and

assigned to different projects and that the treatment used for the smart meter capital program is no different than any other capital program. In other words, to the extent the costs were being allocated to the smart meter program they were removed from other programs. The Board accepts the utility evidence that costs have not been double counted.

A related concern was the “mark up” that some utilities apply to the procurement of goods and services from third parties, including management overheads and inventory costs. The utilities’ evidence was that these were standard procedures in their capital programs. None appear to be unique to the smart meter program and the Board has accepted these markups in previous proceedings.

There were also concerns regarding installation costs and particularly whether the utilities had compared the cost of outsourcing this service as opposed to using internal resources. The majority of utilities did conduct a tender for installation services, even if they ultimately chose not to outsource the installation. The utilities that did not contract out argued that it was better to use internal personnel because they were highly experienced meter installers. Other utilities cited contract limitations in their labour agreements. And still other utilities stated that a combination of internal and external resources provided the preferred installation method.

It appears at first glance that the costs incurred by the utilities that out-source were less than the costs of those using internal resources. However, the Board has considered each individual utility’s circumstances and accepts that each utility acted prudently in determining whether to install the meters using third party contractors or internal resources. The Board is also satisfied that the costs incurred to date for installation were prudently incurred.

Subject to the qualification regarding Hydro One’s project management costs, the Board concludes that the costs incurred by the thirteen utilities as set out in Appendix “A” to this Decision are prudent. We find that the purchasing decisions were conducted with the necessary due diligence and that the best possible prices were obtained through volume buying groups.

In accepting the costs outlined in Appendix “A” for the thirteen utilities the Board has relied on a number of findings. First, the purchasing process itself was carried out in a

professional and diligent manner. Second, the costs allowed in all cases meet the definition of minimum functionality. Third, the costs allowed relate to meters installed (i.e., the costs incurred) as opposed to forecasted costs.

Restricting cost recovery to installed meters is consistent with the Board's Decision on the methodology to recover costs in rates. This Decision allows the utilities to incorporate the capital costs for installed smart meters in rate base, and to calculate the revenue requirement on that basis. It is true as pointed out by some that even installed meters are not necessarily operational in the sense that they are not integrated with the network and that utilities are not calculating bills on the basis of time-of-use pricing. However, they are installed as opposed to sitting in inventory, and they are being used to calculate bills. In the circumstances, the Board believes this to be an appropriate approach.

It is also worth noting that none of the costs include any costs recovered through CDM activities (i.e., third tranche CDM funding authorized by the Board). The costs of pilots, initially claimed by several of the utilities, have also been removed in response to Board requests.

## **Stranded Costs**

Considerable time in this hearing was devoted to the issue of stranded costs. There is no question that in the majority of cases, the installation of smart meters means that older meters will have to be retired earlier than planned. In other words the costs of the older meters will not be fully depreciated.

The degree of stranded costs will vary from utility to utility, but it can be significant. The utilities have indicated that they want assurance from this Board that they can recover the stranded costs and rely upon the statements of the former Minister of Energy to that effect<sup>6</sup>. The Board also accepts that stranded costs, properly calculated, are recoverable. The question is when this exercise should be undertaken.

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<sup>6</sup> Exhibit A12, Tab M (Letter dated December 1, 2005 from D. Cansfield to H. McCallion)

The evidence indicates that stranded costs can vary significantly between different utilities. Some utilities operate in areas dominated by new construction while others are in more mature markets. Many of the utilities suggested that at the present time, the stranded costs associated with existing meters should stay in rate base. The Board accepts this proposition.

Utilities can, if they choose, bring forward applications for the recovery of stranded costs in their 2008 rates. However, there are several reasons why the Board is deferring the decision at this time. First, the roll-out of smart meters will occur over four years. Second, the undepreciated amounts are unknown. Finally, the cost savings are unknown, as are the rate impacts.

Once each of the thirteen utilities reaches full smart meter deployment, the Board and the parties will have better information on the offsetting benefits such as the reduced meter reading costs. The preliminary evidence in this proceeding suggests that these may be substantial and may go a large way to offsetting stranded meter costs.

The Board also heard evidence regarding the Hydro One depreciation study that found that Hydro One had in fact been over depreciating certain assets and under depreciating others. Hydro One testified that it was able to use this information to offset over depreciated assets against other assets to the significant benefit of ratepayers.

The Board also heard evidence on the timing of stranded costs recovery. In particular, Hydro Ottawa testified that the appropriate timing for any rate adder to recover stranded costs was April 2008, at which time its rate adder relating to regulatory assets will cease. Hydro Ottawa indicated that any rate adder related to stranded costs, will likely be less than the rate adder currently in place with respect to regulatory assets. It was suggested that if the stranded cost recovery is linked to the rate adder for regulatory assets there may, in fact, be no need for a rate increase.

The Board has determined that all utilities should continue to track the costs associated with stranded meters. Enersource was the only utility in this proceeding asking for recovery of stranded costs. For the reasons stated above, the Board is not granting this request at this time.

## Replacement and Repair Costs

There was considerable discussion in the hearing on replacement or repair costs of customer owned equipment and whether those costs should form part of the cost recovery in this proceeding. There is evidence that the repair and replacement of customer owned equipment may have increased as a result of the installation of smart meters. On the other hand, this type of expense is not unusual and to a degree occurs in situations where smart meters are not installed.

Some of the utilities wish to treat repair and replacement cost as being part of smart meter costs. Others such as Newmarket argued that these costs are part of normal distribution costs. SEC argued that the costs are relatively minor and should be included in the SMI.

The Board believes that a common approach to the accounting treatment of these costs is appropriate. Many of the applicants sought direction from the Board in this regard. On balance, the Board believes that while these costs may have been accelerated by the smart meter program, they should not be part of minimum functionality. These costs therefore have been removed from the allowable cost categories described in Appendix "A" to this Decision.

The Board considers that the costs of repairing or replacing the meter base extend the useful life of the service asset. Therefore all labour and associated costs incurred, with the exception of material and parts costs for customer owned equipment, shall be capitalized and tracked in a sub-account of the Smart Meter Capital and Recovery Offset Variance Account 1555. The actual material costs to repair or replace any customer owned equipment shall be expensed and also tracked separately in a different sub-account of the Smart Meter OM&A Variance Account 1556 until disposition is ordered by the Board. As the meter base will remain the property of the customer, it would not be appropriate to have it form part of the utility's rate base. Since there are cost allocation considerations, the capitalized costs of repairs, replacements and labour etc. should be recorded by customer rate class just as the smart meter costs will be recorded by customer rate class.

This direction on accounting procedures should not be considered a direction by the Board to perform this work. The Board expects individual distributors to consider their



particular circumstances and to deal with their customers in a cost effective and prudent manner. This direction simply provides distributors with a common accounting approach to similar work. Disposition of the account at a later date will be accompanied by a prudence review of the nature of the expenses as well as the manner in which they were incurred.

## **The Rate Increase Methodology**

The Board has in Appendix “A” to this Decision calculated the amount of costs to be recovered by each of the thirteen utilities for their smart meter installation. The question remains, what rate methodology should be employed?

Only three utilities, Toronto Hydro, Chatham-Kent and Middlesex are asking for recovery through rates at this time. The others propose to defer the matter until the next rate case.

The Board will allow each utility to recover its costs as set out Appendix “A” by including those costs in rate base for the 2006 and 2007 rate years and calculating a revenue requirement on that investment in the manner set out in Appendix “E”. Before calculating a rate increase from this revenue requirement, however, the utility must first deduct the amount of money previously collected in rate adders pursuant to the Orders of March 21, 2006.

Toronto Hydro, Chatham-Kent and Middlesex are directed to file with the Board a draft rate Order based upon these financial calculations. Both Toronto Hydro and Chatham-Kent are requesting that rate increases be implemented in the six month period November 1, 2007 to April 30, 2008. The Board grants that request.

Draft orders reflecting the Board’s decision are to be filed with the Board within 15 days of the Decision being issued. All parties to the *in camera* proceeding shall have 10 days in which to make submissions on the draft orders. Applicants shall have five days in which to file any reply submissions. The Board will issue the orders once it has reviewed the submissions of the parties.

Utilities that are not requesting rate increases may, however, wish to draw down funds previously collected through the smart metering rate adders. They are authorized to do so in order to meet costs approved in this Decision, and will file draft orders with the Board to that effect.

A number of the applicants also requested guidance from the Board in terms of future rate making with respect to the SMI. Six of the applicants<sup>7</sup> are part of the first tranche of cost of service rate applications for 2008 rates. These applicants can apply to recover their smart meter costs for the balance of 2007 and 2008 in those proceedings.

For those applicants that are not part of the first tranche of cost of service applications, the incentive rate mechanism process will recognize the costs approved in this Decision. This will allow distributors to include costs related to minimum functionality, as approved in this Decision, in their incentive rate adjustment.

### **Toronto Hydro Claims for General Service Meters**

None of the utilities with the exception of Toronto Hydro have made any claims for costs relating to additional optional features beyond the minimum functionality requirements adopted in Ontario Regulation 425/06.

Toronto Hydro is however claiming costs associated with 560 smart meters that it has installed for general service and immediate customers and states:

“It would be completely inefficient to replace these meters with conventional mechanical meters only to replace them again with smart meters a short while later. The most efficiently cost effective approach was to replace these meters with smart meters at the time of a customer resealing or when one of these customers was requesting a new service.”

There are those who oppose the Toronto Hydro claim on the basis that it exceeds the regulation in terms of minimum functionality. No one, including Toronto Hydro questions that proposition. The Board however has some sympathy with the Toronto Hydro

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<sup>7</sup> Horizon Utilities, Hydro One Networks, Hydro Ottawa, Enersource, Toronto Hydro, Newmarket Tay Power

request for several reasons. First there is some logic to the argument that Toronto advances. It would seem unreasonable for the Board to sanction wasteful practices. More importantly however, this Board in a previous order granted a rate adder to Toronto Hydro to cover costs relating to these types of meters. Toronto was entitled to infer from that Order authorization to proceed and install the meters and it did so.

Finally, Ontario Regulation 425/06 was enacted relatively late in 2006. Toronto Hydro is claiming expenses relating to the entire calendar year. For the reasons expressed, the Board will allow Toronto Hydro to calculate a revenue requirement relating to the 560 meters on the same basis as the residential meters. The Board is explicitly not finding that the costs associated with these meters fall into the minimum functionality costs. The Board approval of these costs is ancillary to the smart meter decision.

## Summary

In summary, the Board finds that the purchasing decisions of the thirteen utilities involved in this proceeding have been implemented with the necessary due diligence. The terms of contracts each has concluded with suppliers, including the pricing, are prudent.

The evidence also discloses that all thirteen utilities are likely to meet their goals with respect to installed smart meters by the end of 2007. The Board believes that the cost comparisons outlined in Appendix "A" to this Decision will provide sufficient guidance to other utilities when they make their purchasing decisions with respect to smart meters. This table is provided in both confidential and non-confidential format. The confidential format is available only to those that parties that have signed the Board approved Declaration and Undertaking as identified in Appendix "F".

The Board wishes to take this opportunity to thank the utilities and the intervenor groups that participated in this process, all of which are listed at Appendix "G". The analysis was detailed. The Board recognizes that this was an unusual proceeding and the workload resulting from the real time undertakings from the Board and the other parties was extensive. The results of this procurement process are impressive. The Local Distribution Company community has fully supported the Government's initiative in accomplishing an important conservation goal. The smart meter deployments

undertaken by the thirteen utilities considered in this proceeding will result in the installation of over one million meters by the end of 2007, well beyond the 800,000 target set by the Province for this initiative.

## **Cost Awards**

A decision regarding cost awards will be issued at a later date. Parties that were found eligible for an award of costs in this proceeding shall submit their cost claims by August 22, 2007. Two copies of the cost claim must be filed with the Board Secretary and one copy is to be served on the Applicants. The cost claims must be done in accordance with section 10 of the Board's *Practice Direction on Cost Awards*.

Applicants shall have until September 5, 2007 to object to any aspect of the costs claimed. Again two copies of the objection must be filed with the Board Secretary and one copy must be served on the party against whose claim the objection is being made.

The party whose cost claim was objected to will have until September 19, 2007 to make a reply submission as to why its cost claim should be allowed. Again, two copies of the submission must be filed with the Board Secretary and one copy is to be served on each of the Applicants.

The Applicants shall pay the Board's costs of the proceeding immediately upon receipt of the Board's invoice.

All filings with the Board must be in the form of two hard copies and received by the Board by 4:45 p.m. on the stated date. The Board requires all correspondence to be in electronic form as well as paper. Therefore, all parties must also e-mail an electronic copy of their filings preferably in searchable PDF format to the Board Secretary at [Boardsec@oeb.gov.on.ca](mailto:Boardsec@oeb.gov.on.ca).

**DATED** at Toronto, August 8, 2007

*Original signed by*

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Gordon Kaiser  
Presiding Member and Vice Chair

*Original signed by*

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Ken Quesnelle  
Member

*Original signed by*

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Cathy Spoel  
Member

**APPENDIX A**  
**TO THE DECISION WITH REASONS**  
**DATED AUGUST 8, 2007**  
**BOARD FILE NO.**  
**EB-2007-0063**

**Recovery of Costs Incurred for Installed Units (Minimum Functionality)  
Cost Breakdown of Functional Specification for an Advanced Metering Infrastructure**

CAD \$ MILLIONS	TORONTO HYDRO		HYDRO ONE NETWORKS		HYDRO ONE BRAMPTON	
	\$	Qty	\$	Qty	\$	Qty
<b>CAPITAL COSTS</b>						
<b>ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>						
1. Smart Meter						
2. Installation Cost						
3. Workforce Automation						
<b>ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>						
4. Collectors						
5. Repeaters						
6. Installation						
<b>ADVANCED METERING CONTROL COMPUTER (AMCC)</b>						
7. Computer Hardware						
8. Computer Software						
9. Computer Software Licence & Installation						
<b>WIDE AREA NETWORK (WAN)</b>						
10. Activation Fees						
<b>OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>						
11. AMI Interface to CIS						
12. Professional Fees						
13. Integration						
14. Program Management			*			
<b>TOTAL CAPITAL COST (CAD \$ Millions)</b>	<b>23.896</b>	<b>192,294</b>	<b>21.799</b>	<b>62,914</b>	<b>0.940</b>	<b>6,401</b>
<b>TOTAL OM&amp;A COST (CAD \$ Millions)</b> <sup>see NOTE</sup>	<b>0.398</b>		<b>8.366</b>		<b>0.008</b>	
<b>TOTAL COST (CAD \$ Millions)</b>	<b>24.294</b>		<b>30.165</b>		<b>0.948</b>	
<b>Total Cost per Unit \$</b> (Total Cost / Quantity of Smart Meters)		<b>\$126.34</b>		<b>\$479.47</b>		<b>\$148.04</b>
Costs Incurred to:	31-Dec-06		31-May-07		31-May-07	
Source:	Ex A12 Tab G adjusted		Ex A5 adjusted		Ex A4 adjusted	
Commitment re Quantity of Units Installed by December 31, 2007	400,000		240,000		35,000	

NOTE: **OM&A Costs include the following:**  
 AMCD Maintenance  
 AMRC/LAN Maintenance  
 AMCC Hardware and Software Maintenance  
 WAN  
 Other (Business Process Redesign/Customer Communication/Program Management/Change Management)

\*The Board will allow half of the program management costs that are included in the total capital

**Recovery of Costs Incurred for Installed Units (Minimum Functionali  
Cost Breakdown of Functional Specification for an Advanced Meteri**

CAD \$ MILLIONS	HYDRO OTTAWA		HORIZON		POWERSTREAM	
CAPITAL COSTS						
	\$	Qty	\$	Qty	\$	Qty
<b>ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>						
1. Smart Meter						
2. Installation Cost						
3. Workforce Automation						
<b>ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>						
4. Collectors						
5. Repeaters						
6. Installation						
<b>ADVANCED METERING CONTROL COMPUTER (AMCC)</b>						
7. Computer Hardware						
8. Computer Software						
9. Computer Software Licence & Installation						
<b>WIDE AREA NETWORK (WAN)</b>						
10. Activation Fees						
<b>OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>						
11. AMI Interface to CIS						
12. Professional Fees						
13. Integration						
14. Program Management						
<b>TOTAL CAPITAL COST (CAD \$ Millions)</b>	<b>15.293</b>	<b>114,432</b>	<b>0.816</b>	<b>0</b>	<b>0.074</b>	<b>0</b>
<b>TOTAL OM&amp;A COST (CAD \$ Millions)</b> <sup>see NOTE</sup>	<b>0.221</b>		<b>0.239</b>		<b>0</b>	
<b>TOTAL COST (CAD \$ Millions)</b>	<b>15.514</b>		<b>1.055</b>		<b>0.074</b>	
<b>Total Cost per Unit \$</b> (Total Cost / Quantity of Smart Meters)		<b>\$135.58</b>		<b>n/a</b>		<b>n/a</b>
Costs Incurred to:	30-Apr-07		30-Apr-07		31-Dec-06	
Source:	Ex A6 adjusted		Ex A3 adjusted		Ex A10	
Commitment re Quantity of Units Installed by December 31, 2007	175,000		50,000		80,000	

NOTE: **OM&A Costs include the following:**  
 AMCD Maintenance  
 AMRC/LAN Maintenance  
 AMCC Hardware and Software Maintenance  
 WAN  
 Other (Business Process Redesign/Customer Communication/Program Manage



**Recovery of Costs Incurred for Installed Units (Minimum Functionali  
Cost Breakdown of Functional Specification for an Advanced Meteri**

CAD \$ MILLIONS	VERIDIAN		ENERSOURCE		CHATHAM-KENT		MIDDLESEX	
	\$	Qty	\$	Qty	\$	Qty	\$	Qty
<b>CAPITAL COSTS</b>								
<b>ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>								
1. Smart Meter								
2. Installation Cost								
3. Workforce Automation								
<b>ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>								
4. Collectors								
5. Repeaters								
6. Installation								
<b>ADVANCED METERING CONTROL COMPUTER (AMCC)</b>								
7. Computer Hardware								
8. Computer Software								
9. Computer Software Licence & Installation								
<b>WIDE AREA NETWORK (WAN)</b>								
10. Activation Fees								
<b>OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>								
11. AMI Interface to CIS								
12. Professional Fees								
13. Integration								
14. Program Management								
<b>TOTAL CAPITAL COST (CAD \$ Millions)</b>	<b>0.043</b>	<b>0</b>	<b>1.514</b>	<b>12,528</b>	<b>2.862</b>	<b>17,052</b>	<b>0.557</b>	<b>3,063</b>
<b>TOTAL OM&amp;A COST (CAD \$ Millions)</b> <sup>see NOTE</sup>	<b>0</b>		<b>0.293</b>		<b>0.367</b>		<b>0.025</b>	
<b>TOTAL COST (CAD \$ Millions)</b>	<b>0.043</b>		<b>1.807</b>		<b>3.229</b>		<b>0.582</b>	
<b>Total Cost per Unit \$</b> (Total Cost / Quantity of Smart Meters)		<b>n/a</b>		<b>\$144.20</b>		<b>\$189.34</b>		<b>\$189.96</b>
Costs Incurred to:	31-Dec-06		30-Apr-07		30-Apr-07		30-Apr-07	
Source:	Ex A13 Tab B		Ex A2 Updated Adj		K7.2 and Ex A1		K7.2 and Ex A1	
Commitment re Quantity of Units Installed by December 31, 2007	40,000		60,000		28,000		6,000	

NOTE: **OM&A Costs include the following:**  
 AMCD Maintenance  
 AMRC/LAN Maintenance  
 AMCC Hardware and Software Maintenance  
 WAN  
 Other (Business Process Redesign/Customer Communication/Program Manage

**Recovery of Costs Incurred for Installed Units (Minimum Functionali  
Cost Breakdown of Functional Specification for an Advanced Meteri**

CAD \$ MILLIONS	MILTON		NEWMARKET		TAY	
	\$	Qty	\$	Qty	\$	Qty
<b>CAPITAL COSTS</b>						
<b>ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>						
1. Smart Meter						
2. Installation Cost						
3. Workforce Automation						
<b>ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>						
4. Collectors						
5. Repeaters						
6. Installation						
<b>ADVANCED METERING CONTROL COMPUTER (AMCC)</b>						
7. Computer Hardware						
8. Computer Software						
9. Computer Software Licence & Installation						
<b>WIDE AREA NETWORK (WAN)</b>						
10. Activation Fees						
<b>OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>						
11. AMI Interface to CIS						
12. Professional Fees						
13. Integration						
14. Program Management						
<b>TOTAL CAPITAL COST (CAD \$ Millions)</b>	<b>0.697</b>	<b>5,494</b>	<b>2.111</b>	<b>19,000</b>	<b>0</b>	<b>0</b>
<b>TOTAL OM&amp;A COST (CAD \$ Millions)</b> <sup>see NOTE</sup>	<b>0</b>		<b>0.237</b>		<b>0</b>	
<b>TOTAL COST (CAD \$ Millions)</b>	<b>0.697</b>		<b>2.348</b>		<b>0</b>	
<b>Total Cost per Unit \$</b> (Total Cost / Quantity of Smart Meters)		<b>\$126.83</b>		<b>\$123.59</b>		<b>n/a</b>
Costs Incurred to:	30-Apr-07		08-Jun-07		08-Jun-07	
Source:	Ex A8		Ex A9 Confidential		Ex A11 Confidential	
Commitment re Quantity of Units Installed by December 31, 2007	16,000		26,000		4,000	

NOTE: **OM&A Costs include the following:**  
 AMCD Maintenance  
 AMRC/LAN Maintenance  
 AMCC Hardware and Software Maintenance  
 WAN  
 Other (Business Process Redesign/Customer Communication/Program Manage

**APPENDIX B**  
**TO THE DECISION WITH REASONS**  
**DATED AUGUST 8, 2007**  
**BOARD FILE NO.**  
**EB-2007-0063**

**Appendix "B"**

**Advanced Metering Infrastructure Technologies**

Supplier <sup>(1)</sup>	Buying Group	Quantity Installed 2007	
		Actual (YTD)	Planned
Elster	Enersource	12,528	60,000
	Horizon	0	50,000
	Ottawa	114,432	175,000
	Toronto	192,914	400,000
	Veridian	0	40,000
Ozz/Trilliant	Hydro One Brampton	6,401	35,000
	Hydro One Networks	62,914	240,000
	Milton	5,494	15,000
Sensus	Newmarket	19,000	26,000
	PowerStream	0	80,000
	Tay	0	4,000
Tantalus	Chatham-Kent	17,052	28,000
	Middlesex	3,063	6,000
<b>TOTALS</b>		<b>433,798</b>	<b>1,160,000</b>

(1) Description of the technologies attached.

## Description of the Technologies

### **(a) Elster EnergyAxis® AMI**

The Elster EnergyAxis® AMI system is a controlled mesh network consisting of three main components:

- Elster EnergyAxis® Metering Automation Server (MAS) is the advanced metering control computer (AMCC) component of the system for data collection and system management.
- Elster A3 ALPHA Meter/Collectors are the advanced metering regional collectors (AMRCs) for local RF (Radio Frequency) LAN management and data collection. These communicate to the MAS system via commercial WAN networks. In addition to being a collector, the A3 ALPHA is also a residential or commercial meter.
- Elster REX and A3 ALPHA meters with unlicensed spread spectrum, two-way 900 MHz RF LAN communications are the advanced metering communication devices (AMCDs).

The system uses a multi-level network. At the first level, communications between the A3 ALPHA collectors and the MAS are via a commercial WAN. At the second level, a repeating peer-to-peer unlicensed 900 MHz LAN is used for communications between the A3 ALPHA collectors and nearby electric meters located on residential and commercial facilities. Elster's 900 MHz technology allows each RF network meter to be a repeater, with up to eight communications 'hops' possible. Data from any meter or meters can be retrieved by the MAS data collection system either from the collector or directly from a meter.

In the Elster EnergyAxis® system, normal consumption data and meter statuses are stored in the electronic registers in each meter. The A3 ALPHA Meter/Collectors automatically set up their local RF networks and poll each meter six times daily. The incoming data from the individual meters is stored in the Meter/Collector. Elster's LAN technology also supports both broadcast outbound and inbound capabilities as required for realtime meter reads or remote reprogramming.

The MAS server provides central system management to support both scheduled and on-request meter readings. Data from the reads is output in industry-standard XML file formats for import into enterprise or MDM/R applications.

This technology is being deployed by Enersource Hydro, Horizon Utilities, Hydro Ottawa, Toronto Hydro-Electric and Veridian Connections. It has been deployed in the following jurisdictions:

- Alaska Village Electric Cooperative;
- Salt River Project; and
- Empresa Nacional de Energia Electrica (Honduras).

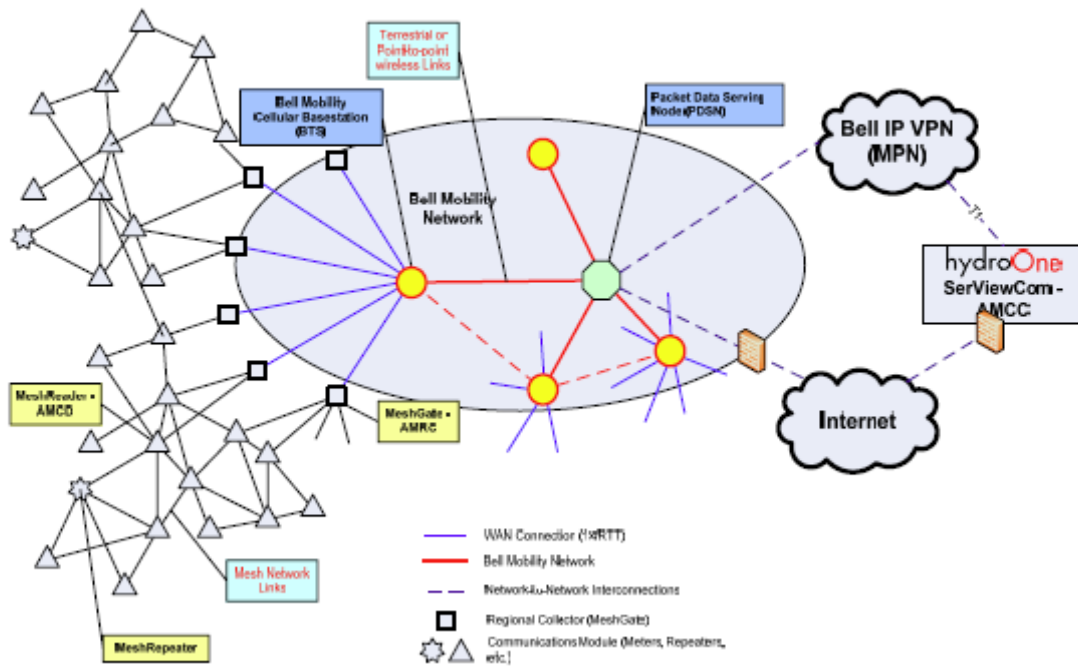
**(b) Ozz/Trilliant AMI**

The Ozz/Trilliant solution is based on controlled mesh technology in which meters (MeshReader or Advanced Metering Communication Device [AMCD]) cluster together and talk to or through other meters and repeaters (MeshRepeater) to find their way to a takeout point in the mesh cluster, known as collector (MeshGate or Advanced Metering Regional Collector [AMRC]). From the collector, using cellular technology, data is backhauled (Wide Area Network or WAN) to the facility hosting the Advanced Metering Control Computer (AMCC).

If a communication path is lost, the meter will try to re-establish the communication path, and if unsuccessful will immediately begin searching for a new path. The endpoints have approximately 10.5 months (300 days) of interval storage, and there is approximately 60 days of storage in the MeshGate AMRC.

The AMCD is a standards-based product (ANSI and IEEE) using open (IP) protocols supporting full two way communications and over-the-air firmware upgrade capability.

**Overall Mesh Network Smart Metering Architecture**



10

This technology is being deployed by Hydro One Brampton, Hydro One Networks and Milton Hydro. It is also deployed in the following jurisdiction:

- o Louisville Gas and Electric.

### **(c) Sensus Metering Systems AMI**

Sensus is a point-to-point long range radio system utilizing towers as the Advanced Metering Regional Collectors (AMRCs). The number of towers needed is dictated by topography, the density of deployment, and the frequency of transmission from the meter to the towers. One tower can cover from 75 to 300 square miles. The tower-based, long range licensed radio system makes Sensus technology well suited to collecting data in utilities that have a combination of urban and rural territories.

Sensus is a fixed network system where radio frequency (RF) modules in meters communicate directly to receivers installed at towers; it is a single tier system. From the tower receiver, the data goes directly back to the utility, not a remote collection facility. The system operates on a mass deployed utility system on primary-use Industry Canada protected radio spectrum.

The data collection network is made up of two parts; the local RF network and the regional network operating centre. The operating centre contains the utility information platform software that manages the meter reading data received from the network.

The RF network consists of radio transmitters and transceivers located at each meter and a network of Tower Gateway Basestations. The transmitters and transceivers transmit the meter consumption and status information at regular intervals. These transmissions are then received by one or more basestations. The basestation forwards the data to the operating centre, and also stores the information locally in the event of operating centre communications path interruption.

This technology is being deployed by Newmarket Tay Power and PowerStream. It has been deployed in the following jurisdictions:

- Alabama Power;
- Potomac Electric Power Company (PEPCO);
- Southern Company; and
- Hawaiian Electric.

#### **(d) Tantalus Systems AMI**

The Tantalus product (TUNet® technology) is a Hybrid Wireless communication system that operates on a variety of meter manufacturers device types that capture the various functions that the meter provides and transmits the information back to a central server Advanced Metering Control Computer (AMCC).

The Tantalus module is an Advanced Metering Communications Device (AMCD) that allows the utility to retrofit existing electromechanical meters that still have a useable un-depreciated life. These modules fit under the glass of the meter and collect hourly cumulative energy usage to 1/100th of a KWh with the storage capacity of 21 days.

The data is communicated in a self healing mesh-network configuration using unlicensed 900MHz spread-spectrum frequencies with an Effective Radiated Power of 0.5 watts. Each device has a unique frequency identifier, unique utility assigned device identifier, a system assigned business identifier which along with the channel hopping nature of spread-spectrum provides several layers of security from the meter register.

The Local Area Network (LAN) is comprised of the actual modules in the meters at the customers' properties. The meters in the LAN can use each other to hop back to the source meter at the Wide Area Network (WAN) portal and the LAN has the routing depth capability of 16 devices that will lead to solid communication in sparsely populated areas rural areas. The LAN devices communicate back to a source meter on a WAN portal which is installed as part of the meter base.

The WAN portal does not store any data; it acts as a gateway to pass the data through a licensed 220MHz frequency, back to the central network controller which eliminates the possibility of any data overlapping. This frequency range is desirable as it is not heavily utilized and it has very good propagation characteristics, wide area of coverage, to follow the earth terrain and penetrate buildings as well as the wide coverage footprints. This enables the user to minimize the amount of infrastructure and antennas that are required to communicate over a wide area. The WAN is managed by the Network Controller that acts as a single regional collector or Advanced Metering Regional Collector (AMRC).

This system is being deployed by Chatham-Kent and Middlesex. It has been deployed in the following jurisdictions:

- Northeastern Rural Electric Membership Corp.;
- Saint John Energy;
- Anaheim Public Utilities Department; and
- Appalachian Electric Cooperative.



**APPENDIX C**  
**TO THE DECISION WITH REASONS**  
**DATED AUGUST 8, 2007**  
**BOARD FILE NO.**  
**EB-2007-0063**

## Appendix "C"

### Funds Collected Through Smart Meter Rate Adder

Utility	Revenue (CAD \$000)
Toronto Hydro <sup>1</sup>	2,966
Hydro One Networks <sup>2</sup>	4,830
Hydro One Brampton <sup>3</sup>	431
Hydro Ottawa <sup>4</sup>	1,011
Horizon Utilities <sup>5</sup>	1,056
PowerStream <sup>6</sup>	700
Veridian Connections <sup>7</sup>	401
Enersource Hydro <sup>8</sup>	676
Chatham-Kent <sup>9</sup>	145
Middlesex <sup>10</sup>	31
Milton <sup>11</sup>	70
Newmarket <sup>12</sup>	0
Tay <sup>13</sup>	22

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<sup>1</sup> Tab K, Ex 4, pg 8 of 12

<sup>2</sup> K5.7

<sup>3</sup> K6.4

<sup>4</sup> Ex A6, pg 26 of 44

<sup>5</sup> K7.14

<sup>6</sup> Vol June 26, p 43, I 1-5

<sup>7</sup> K8.14

<sup>8</sup> K7.7

<sup>9</sup> A1 Reply Arg Updated Rev Req't

<sup>10</sup> A7 Reply Arg Updated Rev Req't

<sup>11</sup> 21575 customers at \$0.27/month for 12 months

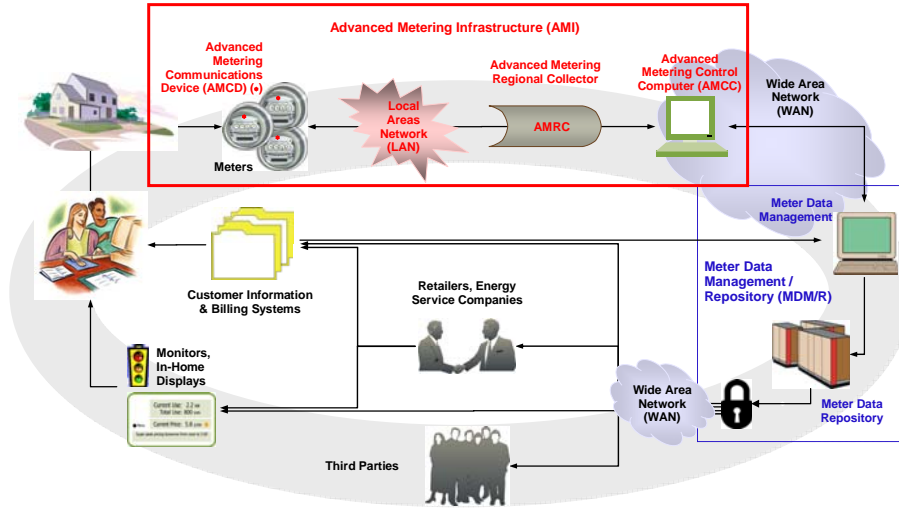
<sup>12</sup> has not made an application for a smart metering rate adder

<sup>13</sup> K9.2

**APPENDIX D**  
**TO THE DECISION WITH REASONS**  
**DATED AUGUST 8, 2007**  
**BOARD FILE NO.**  
**EB-2007-0063**

# APPENDIX "D"

## Smart Metering System



**APPENDIX E**  
**TO THE DECISION WITH REASONS**  
**DATED AUGUST 8, 2007**  
**BOARD FILE NO.**  
**EB-2007-0063**

# Appendix "E"

## Smart Meter Revenue Requirement - Summary

*Name of Applicant*

Summary of Actual Costs claimed in this application	2006 Actual	2006 Plus	2007 Actual	Total Actual	Perm Adjust
<b>Capital Costs (must be installed, and used and useful)</b>					
Smart Meters					
Computer Hardware					
Computer Software					
Tools & Equipment					
Other Equipment (please specify)					
<b>Total Capital Costs</b>					
<b>O M &amp; A</b>					
2.1 Advanced metering communication device (AMCD)					
2.2 Advanced metering regional collector (AMRC) (includes LAN)					
2.3 Advanced metering control computer (AMCC)					
2.4 Wide area network (WAN)					
2.5 Other AMI OM&A costs related to minimum functionality					
<b>Total O M &amp; A Costs</b>					
<b>Summary of Revenue Requirement Calculation</b>					
<b>Net Fixed Assets</b>					
Net Fixed Assets Beginning of Year					
Net Fixed Assets End of Year					
<b>Average Net Fixed Asset Values</b>					
Working Capital Allowance					
Operation Expense					
Working Capital Allowance XX % (from approved 2006 EDR application)					
<b>Smart Meters Rate Base</b>					
<b>Return on Rate Base (from approved 2006 EDR application)</b>					
Deemed Debt XX% Times Weighted Debt Rate X.XX%					
Deemed Equity XX% Times ROE X.XX%					
<b>Return on Rate Base</b>					
<b>Operating Expenses</b>					
Incremental Operating Expenses					
Amortization Expenses (please provide details)					
<b>Total Operating Expenses</b>					
	<b>2006 Actual</b>	<b>2006 Plus</b>	<b>2007 Actual</b>	<b>Total Actual</b>	<b>Perm Adjust</b>
Revenue Requirement Before PILs					
Grossed up PILs					
<b>Revenue Requirement for Smart Meters Installed</b>					

<b>Rate Rider to Clear Actual Expenses to MMM 200X (1)</b>		Metered Customers per 2006 EDR			
Revenue Requirement for Smart Meters Installed	Rate Adder		No. of Mths	Amount Recovered	
Carrying costs <small>The last available Board prescribed interest rate for approved accounts to be applied against deferral accounts is assumed to continue without change for the completion of recovery of actual costs.</small>					
Less Smart Meter Adder Recovery					
May 2006 to April 2007					
May 2007 to October 2007					
November 2007 to April 2008 (proposed to clear actual balance)					
<hr/>					
<b>Rate Adder for Capital and Operating Exp April 2007 to December 2007 (2)</b>		Metered Customers per 2006 EDR			
November 2007 to April 2008 (new deferral account)	Rate Adder		No. of Mths	Amount Recovered	
<hr/>					
<b>Permanent Capital Rate Adjustment (3)</b>		Metered Customers per 2006 EDR			
May 2008	Rate Adder		No. of Mths	Amount Recovered	

**1) Actual Cost Recovery Rate Rider**  
 Calculate the revenue requirement for approved reporting period actual costs incurred including the revenue requirement for prior period capital assets to be recovered in current reporting period (2006 Plus) and the related carrying costs. For this calculation it is assumed that all monies recovered through the applicants' rate adder to date of adjustment will be used to offset the revenue requirement. Upon completion of collection this rate rider will expire and the applicant will close the related deferral account.

**2) Future Cost Offset Rate Adder**  
 Calculate a rate adder for offsetting future costs from the first month after actual cost recovery to the end of 2007. This is similar in nature to the rate adder calculation approved in the April 12, 2007 EDR decision.

**3) Permanent Capital Rate Adjustment**  
 Calculate the revenue requirement for actual capital cost that would be normally added to rate base in a cost of service application. This will be the prior and current reporting period assets to date of approval. This rate adjustment will be a permanent addition to rates and will not expire. This allows the utility to collect the ongoing revenue requirement for the capital assets employed. (Note this amount does not include any incremental operating costs)

**APPENDIX F**  
**TO THE DECISION WITH REASONS**  
**DATED AUGUST 8, 2007**  
**BOARD FILE NO.**  
**EB-2007-0063**

**APPENDIX “F”**

**EB-2007-0063**

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15 (Schedule B);

AND IN THE MATTER OF applications by electricity distribution companies for approval of a smart meter rate adder;

AND IN THE MATTER OF a combined proceeding initiated by the Ontario Energy Board pursuant to sections 19(4), 21(1), 21(5) and 78(3.03) of the *Ontario Energy Board Act, 1998* to determine issues related to the recovery of costs incurred by distributors and associated with authorized discretionary metering activities.

Following is a list of individuals who have completed a Declaration and Undertaking in the above proceeding:

<b>NAME</b>	<b>DESIGNATION</b>	<b>AFFILIATION</b>
Jay Shepherd	Counsel	School Energy Coalition
Rachel Chen	Consultant	School Energy Coalition
Robert Warren	Counsel	Consumers Council of Canada
Julie Girvan	Consultant	Consumers Council of Canada
Phil Tunley	Counsel	Newmarket-Tay Power
Aaron Dantowitz	Counsel	Newmarket-Tay Power
Tom Brett	Counsel	Chatham-Kent Hydro/Middlesex Power/Milton Hydro
Tom Adams	Consultant	Energy Probe
David MacIntosh	Consultant	Energy Probe
Mark Rodger	Counsel	Toronto Hydro
Mike Buonaguro	Counsel	Vulnerable Energy Consumers' Coalition
Roger Higgin	Consultant	Vulnerable Energy Consumers' Coalition
Andrew Taylor	Counsel	Enersource Hydro/Horizon Utilities/Hydro Ottawa/PowerStream/Veridian
Patrick Moran	Counsel	Enersource Hydro/Horizon Utilities/Hydro Ottawa/PowerStream/Veridian
Michael Engelberg	Counsel	Hydro One Networks/Hydro One Brampton
Richard Stephenson	Counsel	Power Workers Union
Bayu Kidane	Consultant	Power Workers Union
Judy Kwik	Consultant	Power Workers Union
James Douglas	Consultant	PowerStream/Newmarket-Tay
Colin McLorg	Employee	Toronto Hydro
Susan Davidson	Employee	Toronto Hydro
Eduardo Bresani	Employee	Toronto Hydro
Ivano Labricciosa	Employee	Toronto Hydro
Steve MacDonald	Employee	Toronto Hydro
Lynne Anderson	Employee	Hydro Ottawa
Colin Macdonald	Employee	PowerStream
Owen Mahaffy	Employee	Hydro Ottawa
Doug Shannon	Employee	Hydro Ottawa
Jim Hogan	Employee	Chatham-Kent Hydro
Chris Buckler	Employee	Horizon Utilities
George Armstrong	Employee	Veridian Connections



<b>NAME</b>	<b>DESIGNATION</b>	<b>AFFILIATION</b>
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Paula Conboy	Employee	PowerStream
Kathi Litt	Employee	Enersource Hydro
Rick Stevens	Employee	Hydro One Networks
Pankaj Sardana	Employee	Toronto Hydro
Phil Dubeski	Employee	Toronto Hydro
Dave Kenney	Employee	Chatham-Kent Hydro
Hugh Bridgen	Employee	Chatham-Kent Hydro
Cheryl Decaire	Employee	Chatham-Kent Hydro
Don Thorne	Employee	Milton Hydro
Harvey Houle	Intervenor	none
Iain Clinton	Employee	Newmarket-Tay Power
Paul Ferguson	Employee	Newmarket-Tay Power
Cameron McKenzie	Employee	Horizon Utilities
Ruth Greey	Employee	Hydro One Networks
Ian Innis	Employee	Hydro One Networks
Laurie Stickwood	Employee	Veridian Connections
Terry Robertson	Employee	Veridian Connections
Rob Scarffe	Employee	Veridian Connections
Sarah Hughes	Employee	Horizon Utilities
Scott Miller	Employee	Hydro One Brampton
Tony Paul	Employee	Hydro One Brampton
James Macumber	Employee	Enersource Hydro
Sonja Potocnik	Employee	Enersource Hydro
Tom Wasik	Employee	Enersource Hydro
Ramona Hendry	Employee	Enersource Hydro
Frank Fabiano	Employee	Horizon Utilities
Edward Chatten	Employee	PowerStream Inc
Mary-Jo Corkum	Employee	Milton Hydro
John Banadie	Employee	Enersource Hydro

**APPENDIX G**  
**TO THE DECISION WITH REASONS**  
**DATED AUGUST 8, 2007**  
**BOARD FILE NO.**  
**EB-2007-0063**

APPENDIX "G"

EB-2007-0063  
COMBINED PROCEEDING - SMART METERS  
LIST OF NAMED PARTIES AND INTERVENORS

**NAMED PARTIES**

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**AND**

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**EB-2007-0544**

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and

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and

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and

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- (May 25, 2007 – email change)
- AND**
- (May 2007)
- AND**
- (May 2007)
- Newmarket Hydro Ltd.  
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*(correction-email address  
June 12, 2007)*

**AND**

*(correction - name – June 12, 2007)*

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10. **Rogers Cable Communications Inc.  
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- (Rogers Cable withdrew June 15, 2007)*
- AND
- AND
11. **School Energy Coalition  
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Link EB-2007-0517 Chatham-Kent

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14. **Mr. Harvey Houle**

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15. **Elster Metering***(Late Intervention-June 12, 2007)*

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## LIST OF NAMED PARTIES AND INTERVENORS

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16. **Sensus Metering Systems**

*(Late Intervention, June 12, 2007-update  
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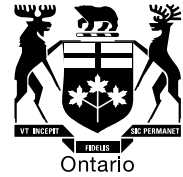
17. **Tantalus Systems Corporation**

*(Pending – Late Intervention-June 12, 2007+)*

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Withdrawn: Ms. Avic Kirchlechner (remove from lists as of March 25, 2007)

Withdrawn: Rogers Cable (June 15, 2007)



**EB-2007-0882**

**IN THE MATTER OF** the *Ontario Energy Board Act*,  
1998, S.O. 1998, c.15 (Schedule B);

**AND IN THE MATTER OF** an application by Hydro One  
Brampton Networks Inc. for an order or orders approving  
or fixing just and reasonable distribution rates and other  
charges, to be effective May 1, 2008.

**BEFORE:** Paul Vlahos  
Presiding Member

Paul Sommerville  
Member

## **DECISION**

### **Introduction**

Hydro One Brampton Networks Inc. (“Hydro One Brampton”) is a licensed distributor of electricity providing service to consumers within its licensed service area. Hydro One Brampton filed an application with the Ontario Energy Board (the “Board”) for an order or orders approving or fixing just and reasonable rates for the distribution of electricity and other charges, to be effective May 1, 2008.

Hydro One Brampton is one of over 80 electricity distributors in Ontario that are regulated by the Board. In 2006, the Board announced the establishment of a multi-year electricity distribution rate-setting plan for the years 2007-2010. As part of the plan, Hydro One Brampton is one of the electricity distributors to have its rates adjusted for 2008 on the basis of the 2<sup>nd</sup> Generation Incentive Rate Mechanism (“IRM”) process.

To streamline the process for the approval of distribution rates and charges for distributors, the Board issued its *Report of the Board on Cost of Capital and 2<sup>nd</sup> Generation Incentive Regulation for Ontario's Electricity Distributors* (the "Report") on December 20, 2006. Among other things, the Report contained the relevant guidelines for 2008 rate adjustments (the "Guidelines") for distributors applying for rate adjustments pursuant to the IRM process.

Notice of Hydro One Brampton's rate application was given through newspaper publication in Hydro One Brampton's service area advising of the availability of the rate application and advising how interested parties may intervene in the proceeding or comment on the application. There were no intervention requests and no comments were received. The Board proceeded by way of a written hearing. Board staff participated actively in the proceeding.

While the Board has considered the entire record in this rate application, it has made reference only to such evidence as is necessary to provide context to its findings.

### **Price Cap Index Adjustment**

Hydro One Brampton's rate application was filed on the basis of the Guidelines. In fixing new rates and charges for Hydro One Brampton, the Board has applied the policies described in the Report.

As outlined in the Report, distribution rates under the 2<sup>nd</sup> Generation IRM are to be adjusted by a price escalator less a productivity factor (X-factor) of 1.0%. Based on the final 2007 data published by Statistics Canada, the Board has established the price escalator to be 2.1%. The resulting price cap index adjustment is therefore 1.1%. The rate model was adjusted to reflect the newly calculated price cap adjustment. This price cap index adjustment applies to distribution rates (fixed and variable charges) uniformly across all customer classes. An adjustment for the transition to a common deemed capital structure of 60% debt and 40% equity was also effected. In addition, a change in the federal income tax rate effective January 1, 2008 was also incorporated into the rate model and reflected in distribution rates.

The Board also considered the reduction in Ontario capital tax and the increase in capital cost allowance (CCA) applicable to certain buildings and computers acquired after March 2007. The Board has decided that adjustments related to these items are

not required, either because the changes are not of general application, or because they do not appear to be material.

The price cap index adjustment does not apply to the following components of the rates:

- the specific service charges;
- the smart meter rate adder (an amount in the fixed components of the rates associated with smart meter cost recovery); and
- any continuing rate riders.

Accordingly, the Board is providing Hydro One Brampton with a rate model (spreadsheet) that reflects the price cap adjustments described above. Hydro One Brampton is required to review the rate model (spreadsheet) and to confirm its completeness and accuracy with the Board at the time it files its Draft Rate Order. Hydro One Brampton shall file with the Board a Draft Rate Order attaching the proposed Tariff of Rates and Charges which will reflect the Board's price cap adjustments as verified by Hydro One Brampton. Hydro One Brampton shall also provide the rate model (spreadsheet) that underpins the Tariff of Rates and Charges. Any changes to the Board's rate model (spreadsheet) shall be clearly identified and explained.

### **Rate Riders**

When the Board approved new rates for distributors for 2006, it also approved the recovery of regulatory asset balances on a final basis. The Board approved rate riders to facilitate the recovery of the approved balances over the two remaining years of the four-year recovery period mandated by the Minister of Energy (i.e. May 1, 2004 to April 30, 2008). The rate rider(s) associated with the recovery of regulatory assets will cease on May 1, 2008 and shall be removed from the Tariff of Rates and Charges, unless a previous Board decision authorized the continuation of such riders beyond April 30, 2008. No such authorization has been previously provided by the Board for Hydro One Brampton. The final balance in account 1590 cannot be confirmed until after the current recovery period has expired, i.e. after April 30, 2008. Once the residual balance in deferral account 1590 is finalized, the residual balance will be disposed in a future proceeding.



## **Smart Meter Rate Adder**

### ***Background***

Hydro One Brampton is one of the licensed distributors authorized by Ontario Regulation 427/06 to conduct discretionary smart metering activities. In its Decision with Reasons in the EB-2007-0063 combined proceeding (the “Combined Proceeding”), the Board reviewed and approved Hydro One Brampton’s residential smart metering costs up to May 31, 2007.

As part of this application, Hydro One Brampton requested to true-up the approved revenue requirement (approved OM&A costs and the revenue requirement associated with the approved capital investment) resulting from the Combined Proceeding against amounts collected through the smart meter rate adders.

### ***Rate Rider of -\$0.09***

Hydro One Brampton requested a -\$0.09 per metered customer per month rate rider to true-up the 2006 and 2007 revenue requirement (i.e., cost of capital and depreciation) associated with the approved smart metering expenditures (EB-2007-0063) against amounts collected by its smart meter rate adder from May 2006 through April 2007. Also to be included as part of the true-up was the OM&A amount approved in EB-2007-0063. Board staff noted that the OM&A amount approved as part of the EB-2007-0063 was \$8,000, whereas Hydro One Brampton submitted in this application that this amount should be revised to \$24,000. The Board accepts the amount of \$8,000.

As implied by the negative rate rider, the monies collected through Hydro One Brampton’s smart meter rate adder have been in excess of the revenue requirement on the approved smart metering expenditures and approved OM&A expenses. The Board notes that, while Hydro One Brampton will need additional funding to complete its smart meter implementation plan, the rate rider will clear the difference between the amounts previously approved by the Board and the monies collected through the smart meter rate adder from May 2006 through April 2007. The Board therefore approves the negative \$0.09 per metered customer per month rate rider to be effective from May 1, 2008, to April 30, 2009.

***Permanent rate adder of \$0.12***

Hydro One Brampton requested in this application the approval of a new rate adder of \$0.12 per metered customer per month. This rate adder would recover the 2008 revenue requirement associated with the Board approved costs for residential smart meter installations completed up to May 31, 2007 (EB-2007-0063 Decision with Reasons).

At the time of rebasing, the depreciated capital investment approved in the EB-2007-0063 proceeding will be incorporated in Hydro One Brampton's rate base and the revenue requirement associated with these investments will be recovered through Hydro One Brampton's distribution rates. The \$0.12 per metered customer per month rate adder serves to provide, on an interim basis, a return on the approved smart metering investments (i.e. cost of financing and depreciation) until they are incorporated into distribution rates. The Board therefore approves the \$0.12 per metered customer per month rate adder for residential smart meter installation up to May 31, 2007. The Board directs Hydro One Brampton to include the approved rate adder in the monthly delivery charge for metered customers.

***Continuation of the \$0.67 Rate Adder***

Hydro One Brampton requested the continuation of the smart meter rate adder of \$0.67 per metered customer per month previously approved by the Board in the Decision and Order in the EB-2007-0541 proceeding. The Board notes that the continuation of this rate adder would serve to provide funding for the continued implementation by Hydro One Brampton of its smart metering plan.

The Board notes that Hydro One Brampton's planned smart meter expenditures in 2008 will increase as it continues its smart meter implementation program. This increase results from the fact that as the total investment in smart meter increases, so does the associated depreciation costs and the base upon which a return on capital is calculated.

The Board finds that Hydro One Brampton's planned 2008 smart meter installations will help to meet the Government's goal of installing smart meters for all Ontario customers by December 31, 2010. The Board approves the continuation of Hydro One Brampton's smart meter rate adder of \$0.67 per metered customer per month. This funding relates strictly to smart metering investments that are within the minimum functionalities set out

in Ontario Regulation 425/06. The Board also wishes to emphasize that it is not approving, as part of this proceeding, any smart metering amounts. The \$0.67 per metered customer per month rate adder is not set to guarantee costs recovery, nor is it set at a level that is deemed to be prudent. By providing advance funding, the \$0.67 per metered customer per month rate adder will phase in the rate increase that could otherwise arise if the cost of the associated smart meters were brought into rate base all at once at the time of rebasing. Since a prudence review examining both substance and quantum will be conducted in due course, the Board notes that difference between the amounts recovered through this rate adder and the related revenue requirement should continue to be captured in a variance account.

### **Retail Transmission Service Rates**

On October 17, 2007, the Board issued its EB-2007-0759 Rate Order setting new Uniform Transmission Rates for Ontario transmitters, effective November 1, 2007. The Board approved a decrease of 18% to the wholesale transmission network rate, a decrease of 28% to the wholesale transmission line connection rate, and an increase of 7% to the wholesale transformation connection rate. The combined change in the wholesale transmission line connection and transformation connection rates is a reduction to the connection rate of 5%.

On October 29, 2007, the Board issued a letter to all electricity distributors directing them to propose an adjustment to their retail transmission service (RTS) rates to reflect the new Uniform Transmission Rates for Ontario transmitters effective November 1, 2007. The objective of resetting the rates was to minimize the prospective balance in variance accounts 1584 and 1586 and also to mitigate intergenerational inequities.

Hydro One Brampton proposed to reduce its RTS – Network Service Rates by 18.4% and its RTS – Line and Transformation Connection Service Rates by 6.7% for all its rate classes. These adjustments are based on the corresponding reductions in wholesale transmission charges, adjusted for the fact that Hydro One Brampton owns one of the four transformer stations supplying it. The Board finds that this approach is reasonable and therefore approves these adjustments. Hydro One Brampton is required to include these changes in its rate model (spreadsheet) to be filed with the Board.

**Implementation**

Hydro One Brampton's new distribution rates are effective May 1, 2008. The Board directs that:

1. Hydro One Brampton shall file with the Board a Draft Rate Order attaching the proposed Tariff of Rates and Charges and the supporting rate model (spreadsheet) within seven (7) days of the date of this Decision. The proposed Tariff of Rates and Charges shall be filed in a Word format. The adjusted rate model shall be filed in an Excel format.

**DATED** at Toronto, March 19, 2008

*Original signed by*

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Paul Vlahos  
Presiding Member

*Original signed by*

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Paul Sommerville  
Member

# Hydro One Brampton Networks Inc.

## TARIFF OF RATES AND CHARGES

### Effective May 1, 2008

**This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors**

EB-2007-0882

#### APPLICATION

- The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Codes, Guidelines or Orders of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.
- No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code, Guideline or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.
- This schedule does not contain any rates and charges relating to the electricity commodity (e.g. the Regulated Price Plan).

#### EFFECTIVE DATES

- DISTRIBUTION RATES - May 1, 2008 for all consumption or deemed consumption services used on or after that date.  
SPECIFIC SERVICE CHARGES - May 1, 2008 for all charges incurred by customers on or after that date.  
LOSS FACTOR ADJUSTMENT - May 1, 2008 unless the distributor is not capable of prorating changed loss factors jointly with distribution rates. In that case, the revised loss factors will be implemented upon the first subsequent billing for each billing cycle.

#### SERVICE CLASSIFICATIONS

##### **Residential**

This classification applies to an account where the electricity is used supplied exclusively to single-family dwelling units for domestic or household purposes, including seasonal occupancy. This includes, but is not limited to, detached houses, one unit of a semi-detached, duplex, triplex or quadruplex house, with a residential zoning. Separately metered dwellings within a town house complex also qualify as residential customers.

##### **General Service Less than 50 kW**

This classification applies to a non residential account less whose average monthly maximum demand is less than, or is forecast to be less than, 50 kW. Multi-unit residential establishments such as apartment buildings supplied through one service (bulk metered) shall normally be classified as general service.

Where service is provided to combined residential and business, or residential and agricultural, whether seasonal or all-year premises, and the wiring does not provide for separate metering, the service shall normally be classed as general service.

##### **General Service 50 to 699 kW**

This classification applies to a non residential account whose average monthly maximum demand used for billing purposes is equal to or greater than, or is forecast to be equal to or greater than, 50 kW but less than 700 kW.

##### **Greater Service 700 to 4,999 kW**

This classification applies to a non residential account whose average monthly maximum demand used for billing purposes is equal to or greater than, or is forecast to be equal to or greater than, 700 kW but less than 5,000 kW.

##### **Large Use**

This classification applies to an account whose average monthly maximum demand over 12 consecutive months used for billing purposes is equal to or greater than 5,000 kW, or is forecast to be equal to or greater than 5,000 kW.

##### **Unmetered Scattered Load**

This classification applies to an account whose average monthly maximum demand is less than, or is forecast to be less than, 50 kW and the consumption is unmetered. Such connections include cable TV power packs, bus shelters, telephone booths, traffic lights, railway crossings, etc. The level of the consumption will be agreed to by the distributor and the customer, based on detailed manufacturer information/documentation with regard to electrical consumption of the unmetered load or periodic monitoring of actual consumption.

# Hydro One Brampton Networks Inc.

## TARIFF OF RATES AND CHARGES

### Effective May 1, 2008

**This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors**

EB-2007-0882

**Standby Power**

This classification refers to an account that has Load Displacement Generation and requires the distributor to provide back-up service.

**Sentinel Lighting**

This classification refers to accounts that are an unmetered lighting load supplied to a sentinel light.

**Street Lighting**

All service supplied to roadway lighting equipment owned by or operated by the City of Brampton, Regional Municipality of Peel, or the Ministry of Transportation, controlled by photo cells. The consumption for these customers will be based on the calculated connected load times the required lighting times established in the approved OEB street lighting load shape template.

**Embedded Distributor**

This classification applies to an electricity distributor licensed by the Board, that is provided electricity by means of this distributor's facilities.

**MONTHLY RATES AND CHARGES****Residential**

Service Charge	\$	11.45
Service Charge – Non-Routine Rate Rider	\$	(0.09)
Distribution Volumetric Rate	\$/kWh	0.0157
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0048
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0045
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**General Service Less Than 50 kW**

Service Charge	\$	21.29
Service Charge – Non-Routine Rate Rider	\$	(0.09)
Distribution Volumetric Rate	\$/kWh	0.0181
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0043
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0040
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

**General Service 50 to 699 kW**

Service Charge	\$	104.11
Service Charge – Non-Routine Rate Rider	\$	(0.09)
Distribution Volumetric Rate	\$/kW	2.3333
Retail Transmission Rate – Network Service Rate	\$/kW	1.6567
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.5209
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

# Hydro One Brampton Networks Inc.

## TARIFF OF RATES AND CHARGES

### Effective May 1, 2008

**This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors**

EB-2007-0882

#### General Service 700 to 4,999 kW

Service Charge	\$	1,435.59
Service Charge – Non-Routine Rate Rider	\$	(0.09)
Distribution Volumetric Rate	\$/kW	3.8003
Retail Transmission Rate – Network Service Rate – Interval Metered	\$/kW	1.8580
Retail Transmission Rate – Line and Transformation Connection Service Rate – Interval Metered	\$/kW	1.6349
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

#### Large Use

Service Charge	\$	4,804.91
Service Charge – Non-Routine Rate Rider	\$	(0.09)
Distribution Volumetric Rate	\$/kW	2.9526
Retail Transmission Rate – Network Service Rate – Interval Metered	\$/kW	2.1028
Retail Transmission Rate – Line and Transformation Connection Service Rate – Interval Metered	\$/kW	1.8897
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

#### Unmetered Scattered Load

Service Charge (per customer)	\$	20.50
Distribution Volumetric Rate	\$/kWh	0.0181
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0043
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0040
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

#### Standby Power – APPROVED ON AN INTERIM BASIS

Standby Charge – for a month where standby power is not provided. The charge is applied to the contracted amount (e.g. nameplate rating of generation facility).	\$/kW	1.5033
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#### Sentinel Lighting

Distribution Volumetric Rate	\$/kW	3.8647
Retail Transmission Rate – Network Service Rate	\$/kW	1.3812
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.2678
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

#### Street Lighting

Distribution Volumetric Rate	\$/kW	2.2429
Retail Transmission Rate – Network Service Rate	\$/kW	1.3794
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.2662
Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0010
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

# Hydro One Brampton Networks Inc.

## TARIFF OF RATES AND CHARGES

### Effective May 1, 2008

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EB-2007-0882

**Embedded Distributor**

Distribution Wheeling Service Rate	\$/kW	0.0611
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**Specific Service Charges**

## Customer Administration

Arrears certificate	\$	15.00
Pulling post dated Cheques	\$	15.00
Duplicate invoices for previous billing	\$	15.00
Request for other billing information	\$	15.00
Easement letter	\$	15.00
Income tax letter	\$	15.00
Account history	\$	15.00
Credit reference/credit check (plus credit agency costs)	\$	15.00
Returned cheque charge (plus bank charges)	\$	15.00
15.00		\$
Legal letter charge	\$	15.00
Account set up charge/change of occupancy charge (plus credit agency costs if applicable)	\$	30.00
Special meter reads	\$	30.00
Special Billing Service (aggregation)	\$	125.00
Special Billing Service (sub-metering charge per meter)	\$	25.00

## Non-Payment of Account

Late Payment - per month	%	1.50
Late Payment - per annum	%	19.56
Collection of account charge - no disconnection	\$	30.00
Disconnect/Reconnect at meter - during regular hours	\$	65.00
Disconnect/Reconnect at meter - after regular hours	\$	185.00
Disconnect/Reconnect at pole - during regular hours	\$	185.00
Disconnect/Reconnect at pole - after regular hours	\$	415.00
Disconnect/Reconnection for >300 volts - during regular hours	\$	60.00
Disconnect/Reconnection for >300 volts - after regular hours	\$	155.00

Owner Requested Disconnection/Reconnection - during regular hours	\$	120.00
Owner Requested Disconnection/Reconnection - after regular hours	\$	155.00
Specific Charge for Access to the Power Poles - per pole/year	\$	22.35

## Allowances

Transformer Allowance for Ownership - per kW of billing demand/month	\$/kW	(0.60)
Primary Metering Allowance for transformer losses - applied to measured demand and energy	%	(1.00)

**LOSS FACTORS**

Total Loss Factor – Secondary Metered Customer < 5,000 kW	1.0356
Total Loss Factor – Secondary Metered Customer > 5,000 kW	1.0145
Total Loss Factor – Primary Metered Customer < 5,000 kW	1.0253
Total Loss Factor – Primary Metered Customer > 5,000 kW	1.0045