# PETERBOROUGH DISTRIBUTION INC.

1867 Ashburnham Drive, PO Box 4125, Station Main Peterborough ON K9J 6Z5

February 8, 2007

File: F69

Board Secretary Ontario Energy Board P.O. Box 2319 2300 Yonge Street, 26<sup>th</sup> Floor Toronto, ON M4P 1E4

REPLACES SUBMISSION DATED JANUARY 26, 2007

To Board Secretary:

# 2007 IRM Model PETERBOROUGH DISTRIBUTION INC\_ ASPHODEL-NORWOOD EB-2007-0571 (AshNor)

On January 29, 2007 the Ontario Energy Board advised distributors seeking recovery of costs associated with smart metering investments to file an amended 2007 EDR applications by Friday, February 9, 2007.

Peterborough Distribution Inc. hereby re-submits its 2007 EDR for the Asphodel-Norwood service territory to replace the application submitted January 25, 2007.

The management letter includes a request for an increase in the smart meter rate adder to \$0.84 per metered customer based upon the Smart Meter Addendum model results.

Our submission includes a revised 2007 IRM model and the Smart Meter Addendum model. Annualized customer total bill impacts are provided in the Manager's Summary.

- 1. Requested Smart Meter Funding of \$0.84 per metered customer, file name Peterborough AshNor 2007IRMmodel with Smart Meter Addendum 20070209.xls.
- 2. Smart Meter Addendum Model, file name Peterborough AshNor Rate Addendum Model 20070209.xls.

Yours very truly,

G. Andrew Hoggarth, B. Admin., CGA, ICD.D CFO & Vice President Corporate Services

Telephone (705) 748-9301 ext 1270

Fax (705) 748-4358

e-mail ahoggarth@puc.org

Attachments 1 disk

3 hard copies Smart Meter Addendum

3 hard copies 2007 IRM Model

# PETERBOROUGH DISTRIBUTION INC.

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Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 26<sup>th</sup> Floor
Toronto, ON M4P 1E4

REPLACES SUBMISSION DATED JANUARY 26, 2007

To Board Secretary:

# MANAGER'S SUMMARY PETERBOROUGH DISTRIBUTION INC\_AshNor EB-2007-0571 (AshNor)

Peterborough Distribution Inc, Peterborough service territory, re-submits its 2007 EDR application consistent with the guidelines provided in the 2007 IRM model and is requesting that the Smart Meter Adder be increased to \$0.84 per metered customer based upon the results from the Smart Meter Addendum model.

Our submission includes a revised 2007 IRM model, Smart Meter Addendum Model and the annualized customer total bill impact is provided below.

- Requested Smart Meter Funding of \$0.84 per metered customer, file name Peterborough\_AshNor\_2007IRMmodel\_with Smart Meter Addendum 20070209.xls
- 2. Smart Meter Addendum Model, file name Peterborough\_AshNor\_Rate\_Addendum\_Model\_20070209.xls

Following is a summary of each component of the 2007 IRM model:

- Sheet 1. LDC Information has been updated per instructions.
- Sheet 2. 2006 Rate Classes have been labeled exactly as indicated on our Board-Approved 2006 Tariff of Rates and Charges.
- Sheet 3. 2006 Board-Approved Tariff of Rates and Charges have been entered, including the complete descriptions of service classifications.
- Sheet 4. Smart Meter Funding Information has been updated per the Board-Approved 2006 EDR model and the Smart Meter Addendum model.

The 2006 rate model included \$0.26 per metered customer per month as there was no specific smart meter investment plan filed or approved. A Coalition of Large Distributors negotiated large volume pricing for Elster meters and Distributors were encouraged by the Ministry of Energy to participate in the order to achieve the minimum quantities required for the lowest meter cost.

Peterborough Distribution Inc. (PDI) made a decision to "piggyback" with the large utilities and purchase under the CLD plan. September 21, 2006 we received a letter from Elster extending the special pricing until October 15, 2006 based upon a minimum order of 50% of our total AMI metering requirements being delivered by December 28, 2007.

PDI's SMIP plan is a commitment to have 100% of our residential and GS < 50 meters installed over a four-month period commencing in October 2007 for all three of our service territories, Peterborough, Lakefield and Asphodel-Norwood.

The SMIP plan commitment for Asphodel-Norwood is to have all 580 residential meters and 95 GS<50 meters installed by January 2008.

- Sheet 5. Removal of Smart Meter Charge from 2006 Rates, no input required.
- Sheet 6. Conservation and Demand Management Adjustment, no Board approval for incremental CDM spending.
- Sheet 7. Large Corporation Tax Allowance, Asphodel-Norwood did receive Board approval for Large Corporation Tax in 2006 in the amount of \$99.04, which results in a rate reduction ratio of 0.03%.
- Sheet 8. Price Cap Adjustment to "Basic" Distribution Rates, no input required.
- Sheet 9. Add back of Smart Meter Amounts, no inputs required.
- Sheet 10. Tariff Sheets attached for current Board-Approved Smart Meter funding and request Smart Meter Funding.
- Sheet 11 Bill Impact Summer, attached.
- Sheet 12 Bill Impact Winter, attached.
- Sheet 13 Bill Impact Annualized, attached.

# The annualized customer total bill impact after taxes are as follows:

		Requested Smart Meter Funding			
		\$	0.84		
Residential	750 kWh	\$0.48	0.52%		
	1,000 kWh	<mark>\$0.42</mark>	<mark>0.33%</mark>		
	2,000 kWh	\$0.14	0.06%		
General Service <50 kWh	1,000 kWh	\$0.49	0.37%		
	2,000 kWh	\$0.23	0.09%		
	5,000 kWh	(\$0.564)	(0.09%)		
General Service > 50 kW	60 kW				
General Service > 50 kW	15,000 kWh	(\$3.94)	(0.15%)		
	100 kW,				
	40,000 kWh	(\$11.75)	(0.21%)		
	500 kW,				
	100,000 kWh	(\$36.47)	(0.20%)		

Yours very truly,

G. Andrew Hoggarth, B. Admin., CGA, ICD.D CFO & Vice President Corporate Services Telephone (705) 748-9301 ext 1270 Fax (705) 748-4358 e-mail ahoggarth@puc.org

Attachments 1 disk

3 hard copies Smart Meter Addendum 3 hard copies 2007 IRM Model



# **Ontario Energy Board**

# 2007 EDR SMART METER RATE CALCULATION MODEL

### **Sheet 1** Utility Information Sheet

<u>Legend:</u>	Input Cell	Pull-Down Menu Option	Output Cell
	From Another Sheet	To The 2007 IRM Model	To Another Sheet

Please note that this model uses MACROS. Before starting, please ensure that macros have been enabled.

Name of LDC:	Peterborough Distribution	Incorporated		
Licence Number:	ED-2002-0504	Smart	Meter Grouping:	Active
IRM 2007 EB Number:	EB-2007-0571	]		
EDR 2006 RP Number:	RP-2005-0020	EDR 2006 EB Number:	EB-2005-0406	
Date of Submission:	2/9/2007 - AshNor	Revision:	0	
Version:	1.0			
Version: Contact Information	1.0			
	1.0 Robert Kent			
Contact Information			]	
Contact Information Name:	Robert Kent		]	

Please Note: In the event of an inconsistency between this model and any element of the January 2007 "Report of the Board on 2nd Generation Incentive Regulation of Ontario's Electricity Distributors - Addendum for Smart Metering Rates ", the Report governs.

#### Copyright

This Distribution Rate model is protected by copyright and is being made available to you solely for the purpose of preparing or reviewing an Distribution Rate 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 Distribution Rate application, you must ensure that the person understands and agrees to the restrictions noted above.



# 2007 EDR SMART METER RATE CALCULATION MODEL Peterborough Distribution Incorporated

#### EB-2007-0571

2/9/2007 - AshNor

Sheet 2. Smart Meter Capital Cost and Ope	rational l	Expense	Data					
Smart Meter Unit Installation Plan: (From Smart Meter Plan filed I								
assume calendar year installation	December 15, 2006 )	2006	2007	2008	2009	2010	Total	
Planned number of Residential smart meters to be installed		-	580	-	-	-	580	
Planned number of General Service Less Than 50 kW smart meters  Planned Meter Installation (Residential and Less Than 50 kW only)		-	95 675	-	-	-	95 675	
Planned Meter Installation Completed before January 1, 2008			675					
Smart Meter Unit Cost	Per Un	it						
Smart Meter Unit Cost Enter the invoiced cost per smart meter purchased Please provide details in Manager's Summary	\$	97.61	Α					
Smart Meter Other Unit Cost Enter the involced other costs per smart meter unit purchased Please provide details in Manager's Summary	\$	20.00	В					
Smart Meter Installation Cost per Unit Enter the time and material cost per smart meter unit installed Please provide details in Manager's Summary	\$	10.48	С					
Smart Meter Other Cost per Unit Enter the other cost per smart meter unit installed Please provide details in Manager's Summary	\$	-	D					
Total Unit cost per Smart Meter	\$ 3. LDC Assumpt		A + B + C + D					
AMI Capital Cost								
AMI Computer Hardware Costs	2006		2007	2008	2009	2010 - \$	Total	F
Amit Computer indraware Costs Enter the estimated capital costs for AMI related Computer Hardware Please provide details in Manager's Summary	\$	- J		C Assumptions and Data	-   \$		-	r
AMI Computer Software Costs  Enter the estimated capital costs for AMI related Computer Software Please provide details in Manager's Summary	\$	- \$	2007 - \$ 3. LD0	2008  - \$ C Assumptions and Data	2009	2010 - \$	-	G
Total AMI Capital Cost	\$	- \$	- \$	- \$	- \$	- \$	-	H = F + G
Other Capital Cost	2006		2007	2008	2009	2010	Total	
Other Computer Hardware Costs  Enter the estimated capital costs for other related Computer Hardware Please provide details in Manager's Summary	\$	- \$	- \$	- \$ C Assumptions and Data	- \$	- \$	Total -	1
Other Computer Software Costs  Enter the estimated capital costs for other related Computer Software Please provide details in Manager's Summary	\$	- \$	1,228 \$ 3. LD0	- \$ C Assumptions and Data	- \$	- \$	1,228	J
Total Other Capital Cost	\$	- \$	1,228 \$	- \$	- \$	- \$	1,228	K = I + J
Incremental AMI Operational Expenses	2000		0007	0000	0000	2042	T	
Incremental AMI O&M Expenses Enter the estimated incremental AMI related O&M expenses Please provide details in Manager's Summary	\$	- \$	2007 - \$ 3. LD0	2008  - \$ C Assumptions and Data	2009	2010 - \$	Total -	L
Incremental AMI Admin Expenses Enter the estimated incremental AMI related Admin expenses Please provide details in Manager's Summary	\$	- \$	- \$ 3. LD0	- \$ C Assumptions and Data	-  \$	- \$	-	М
Total Incremental AMI Operation Expenses	\$	- \$	- \$	- \$	- \$	- \$	- 1	N = L + M
Incremental Other Operational Expenses								
Incremental Other O&M Expenses Enter the estimated incremental Other related O&M expenses Please provide details in Manager's Summary	\$	- \$	2007 - \$ 3. LD0	2008  - \$ C Assumptions and Data	2009	2010 - \$	Total -	0
Incremental Other Admin Expenses Enter the estimated incremental Other related Admin expenses Please provide details in Manager's Summary	\$	- \$	- \$ 3. LD0	- \$ C Assumptions and Data	- \$	- \$	-	Р
Total Incremental Other Operation Expenses	\$	- \$	- \$	- \$	- \$	- \$	-	Q = O + P

AMI - Advanced Metering Infrastructure Other - Cost or expenses not AMI but does not include stranded assets



#### 2007 EDR SMART METER RATE CALCULATION MODEL

# Peterborough Distribution Incorporated

EB-2007-0571

2/9/2007 - AshNor

**Sheet 3. LDC Assumptions and Data** 

#### **Assumptions:**

- 1. Planned meter installations occur evenly through the year.
- 2. Year assumed January to December
- 3. Amortization is straight line and has half year rule applied in first year

#### 2006 EDR Data Information

Deemed Debt (from 2006 EDR Sheet "3-2 COST OF CAPITAL (Input)" Cell C 18)

Deemed Equity (from 2006 EDR Sheet "3-2 COST OF CAPITAL (Input)" Cell C 19)

Weighted Debt Rate (from 2006 EDR Sheet "3-2 COST OF CAPITAL (Input)" Cell C 25)

Proposed ROE (from 2006 EDR Sheet "3-2 COST OF CAPITAL (Input)" Cell E 32)

Weighted Average Cost of Capital

#### 2006 EDR Total Metered Customers

Sum of Residential, General Service, and Large User

from 2006 EDR Sheet "7-1 ALLOCATION - Base Rev. Reg." Cells H16 thru H93

#### 2006 EDR Tax Rate

Corporate Income Tax Rate

(from 2006 PILs Sheet "Test Year PILs, Tax Provision" Cell D 14)

#### **Capital Data:**

Smart meter including installation (\$128.09 times Planned Meters Installed)
Computer Hardware Costs 2. Smart Meter Data; AMI (F) plus Other (I)
Computer Software Costs 2. Smart Meter Data; AMI (G) plus Other (J)
Total Computer Costs 2. Smart Meter Data; AMI (H) plus Other (K)

#### LDC Amortization Policy:

Smart Meter Amortization Rate Enter Amortization Policy Computer Hardware Amortization Rate Enter Amortization Policy Computer Software Amortization Rate Enter Amortization Policy

#### **Operating Expense Data:**

Incremental O&M Expenses 2. Smart Meter Data; AMI (L) plus Other (O) Incremental Admin Expenses 2. Smart Meter Data; AMI (M) plus Other (P) Total Incremental Operating Expense 2. Smart Meter Data; AMI (N) plus Other (Q)

#### Per Meter Cost Split:

Smart meter including installation Computer Hardware Costs Computer Software Costs Smart meter incremental operating expenses Total Smart Meter Capital Costs per meter

50%	4. Smart Meter Rate Calc
50%	4. Smart Meter Rate Calc
6.25%	4. Smart Meter Rate Calc
9.00%	4. Smart Meter Rate Calc

7.63%

682 4. Smart Meter Rate Calc

18	62%	5	PII s
۱ö.	. <b>62</b> %	5.	PILS

2006	6	2007	2008	2009	2010	Total
\$ -	\$	86,461	\$ -	\$ -	\$ -	\$ 86,461
\$ -	\$	-	\$ -	\$ -	\$ -	\$ -
\$ -	\$	1,228	\$ -	\$ -	\$ -	\$ 1,228
\$ -	\$	87,689	\$ -	\$ -	\$ -	\$ 87,689

6. SM Avg Net Fixed Assets &UCC

	15	Years		6. SM A	vg Net Fixe	d Assets	s &UCC				
	5	Years		6. SM A	vg Net Fixe	d Assets	s &UCC				
	3	Years		6. SM A	vg Net Fixe	d Assets	s &UCC				
	2006	i	2007	7	2008	3	2009	9	2010	)	Total
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

4. Smart Meter Rate Calc

	Per Meter	Installed	Investment	% of Invest
\$	128.09	675	\$ 86,461	99%
\$	-	675	\$ -	0%
\$	1.82	675	\$ 1,228	0%
\$		675	\$ -	0%
\$	129.91		\$ 87,689	99%



# **Smart Meter Rate Calculation**

A
В
C = A + B
D = C * Deemed Debt
E = C * Deemed Equity
F = D * Weighted Debt Rate
G = E * Proposed ROE
H = F + G
I
5. PILs J
K = H + I + J
1
J
F
5. P/Ls $L = K - I - J - F$
М
K
<i>M</i>
N = K + M
N
O = 2006 EDR Total Metered Customers
<i>P</i> = <i>N</i> / <i>O</i>
5.5.0
Enter this amount in the 2007 IRM Model sheet "4. 2006 Smart Meter Information" in cells F 17 thru F 32 (as

# VI NCEHI FDEIS

# 2007 EDR SMART METER RATE CALCULATION MODEL

# **Peterborough Distribution Incorporated**

EB-2007-0571

2/9/2007 - AshNor

**Sheet 5. PILs** 

# **PILs Calculation**

IN	CC	ME	TA	١X
----	----	----	----	----

Net Income (4. Smart Meter Rate Calc)	\$	1,904
Amortization (4. Smart Meter Rate Calc)	\$	3,087
CCA - Class 47 (8%) Smart Meters (6. SM Avg Net Fixed Assets &UCC)	-\$	3,458
CCA - Class 45 (45%) Computers (6. SM Avg Net Fixed Assets &UCC)	-\$	276
Change in taxable income	\$	1,256
Tax Rate (3. LDC Assumptions and Data)		18.62%
Income Taxes Payable	\$	234

#### **ONTARIO CAPITAL TAX**

Smart Meters (6. SM Avg Net Fixed Assets &UCC)	\$ 83,579
Computer Hardware (6. SM Avg Net Fixed Assets &UCC)	\$ -
Computer Software (6. SM Avg Net Fixed Assets &UCC)	\$ 1,023
Rate Base	\$ 84,602
Less: Exemption	\$ -
Deemed Taxable Capital	\$ 84,602
Ontario Capital Tax Rate	0.300%
Net Amount (Taxable Capital x Rate)	\$ 254

# **Gross Up**

	PILs Pa	ayable	Gross Up	Up	PILs	
Change in Income Taxes Payable	\$	234	18.62%	\$	287	
Change in OCT	\$	254		\$	254	
PIL's	\$	488		\$	541	4. Smart Meter Rate Calc

Grossed

# 2007 EDR SMART METER RATE CALCULATION MODEL Peterborough Distribution Incorporated

EB-2007-0571 2/9/2007 - AshNor

Sheet 6. SM Avg Net Fixed Assets &UCC

# **Smart Meter Average Net Fixed Assets**

Net Fixed Assets - Smart Meters		2006		2007	
Opening Capital Investment	\$		\$		•
Capital Investment Year 1 (3. LDC Assumptions and Data)	\$	-	*		
Capital Investment Year 2 (3. LDC Assumptions and Data)			\$	86,461	
Closing Capital Investment	\$	-	\$	86,461	•
					•
Opening Accumulated Amortization	\$	-	\$	-	
Amortization Year 1 (15 Years Straight Line) Amortization Year 2 (15 Years Straight Line)	\$	-	\$ \$	2,882	
Closing Accumulated Amortization	\$		\$	2,882	•
Olosing Accumulated Amortization	Ψ		Ψ	2,002	•
Opening Net Fixed Assets	\$	-	\$	_	•
Closing Net Fixed Assets	\$	-	\$	83,579	5. PILs
Average Net Fixed Assets	\$	-	\$	41,789	4. Smart Meter Rate Calc
Net Fixed Assets - Computer Hardware		2006		2007	
Opening Capital Investment	\$	_	\$	_	•
Capital Investment Year 1 (3. LDC Assumptions and Data)	\$	_	Ψ		•
Capital Investment Year 2 (3. LDC Assumptions and Data)	•		\$	_	
Closing Capital Investment	\$	-	\$	-	•
					•
Opening Accumulated Amortization	\$	-	\$	-	
Amortization Year 1 (5 Years Straight Line)	\$	-	\$	-	
Amortization Year 2 (5 Years Straight Line) Closing Accumulated Amortization	\$	_	\$	-	•
Closing Accumulated Amortization	Ψ		φ	-	
Opening Net Fixed Assets	\$	-	\$	-	•
Closing Net Fixed Assets	\$	-	\$	-	5. PILs
Average Net Fixed Assets	\$	-	\$	-	4. Smart Meter Rate Calc
Net Fixed Assets - Computer Software		2006		2007	
Opening Capital Investment	\$	-	\$	-	
Capital Investment Year 1 (3. LDC Assumptions and Data)	\$	_	•		•
Capital Investment Year 2 (3. LDC Assumptions and Data)			\$	1,228	
Closing Capital Investment	\$	-	\$	1,228	•
Opening Accumulated Amerization	•		\$		:
Opening Accumulated Amortization Amortization Year 1 (3 Years Straight Line)	<u>\$</u> \$		\$		•
Amortization Year 2 (3 Years Straight Line)	Ψ		\$	205	
Closing Accumulated Amortization	\$	-	\$	205	
Opening Net Fixed Assets	\$	-	\$	-	
Closing Net Fixed Assets	\$	-	\$	1,023	
Average Net Fixed Assets	\$	-	\$	512	4. Smart Meter Rate Calc



# 2007 EDR SMART METER RATE CALCULATION MODEL Peterborough Distribution Incorporated

EB-2007-0571

2/9/2007 - AshNor Sheet 6. SM Avg Net Fixed Assets &UCC

# **For PILs Calculation**

#### **UCC - Smart Meters**

CCA Class 47 (8%)

,				
Opening UCC	\$ -	\$	-	
Capital Additions	\$ -	\$	86,461	
UCC Before Half Year Rule	\$ -	\$	86,461	
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$	43,230	
Reduced UCC	\$ -	\$	43,230	
CCA Rate Class 47	 8%	)	8%	
CCA	\$ -	\$	3,458 5.	PILs
Closing UCC	\$ -	\$	83,002	
UCC Commister Environment				
UCC - Computer Equipment CCA Class 45 (45%)	2006		2007	

2006

2007

CA Class 45 (45%)		

Opening UCC	\$ -	\$	-	
Capital Additions Hardware	\$ -	\$	-	
Capital Additions Software	\$ -	\$	1,228	
UCC Before Half Year Rule	\$ -	\$	1,228	
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$	614	
Reduced UCC	\$ -	\$	614	
CCA Rate Class 45	 45%	%	45%	
CCA	\$ -	\$	276	5. PILs
Closing UCC	\$ -	\$	952	•