



283 pembroke street west – p.o. box 1087
pembroke, ontario K8A 6Y6
tel: (613) 732-3687 – fax: (613) 732-9838
web: www. orpowercorp.com

February 8, 2007

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

**RE: Smart Meter Rate Addendum
In Respect to EB-2007-0567 IRM & EB-2005-0403 EDR**

Dear Ms. Walli:

In respect to the Board's Report of the Board on 2nd Generation Incentive Regulation for Ontario's Electricity Distributors Addendum for Smart Metering Rates, please find attached three (3) copies of the Manager's Summary and the model, as well as a CD with all documents in a digital format. Files have also been forwarded to the Board by E-mail.

Kindly advise us if we can supply any additional information.

Yours truly,

Original signed by

Douglas Fee, P.Eng.
President

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"A Proud Locally Owned Municipal Utility"

Ottawa River Power Corporation

Smart Meter 2007 EDR Rate Adders – Manager’s Summary

Proceedings EB-2006-0087, 88, 89 EB-2005-0403 EDR EB-2007-0567/IRM 2007

Ottawa River Power Corporation (ORPC) serves 10,500 customers in Almonte, Beachburg, Killaloe and Pembroke.

A smart meter plan was filed in December 2006 with the Board. In brief, the plan called for the implementation of a pilot program involving the installation of 500 meters in 2007 along with an AMI system using technology from Elster that has been accepted under the Ministry of Energy procurement process. Pricing obtained by the CLD in the tender process has been extended to other utilities. The object of the pilot program will be to gain experience with the smart meter hardware, roll out procedures, Elster’s AMI system and test communication technology that will be used in the four communities in our service area.

Subject to successful completion of the pilot program, we would propose to move to full implementation in 2008 with the installation of 5000 meters, as well as connections to the MDR/M and the CIS system to allow interval billing in the latter part of 2008. The remaining customers (approximately 5000) would be completed in 2009.

A complication has arisen in the last three weeks with the announcement that Advanced, our CIS vendor, is exiting the Ontario marketplace due to the reduction in utilities and the ongoing burden that the changes in the Ontario marketplace places on CIS vendors. This will mean the added significant work load of changing vendors.

ORPC presently provides billing services to Hydro 2000 and Cooperative Hydro Embrun. It is expected that our three utilities, and possible Hawkesbury Hydro, will cooperate with smart meters to provide a cost saving to the AMI. Details of the working arrangement will be established during the pilot stage in 2007.

The attached model has been completed based on the following:

<u>Smart Meter Unit Cost</u>					\$111 Avg/meter
There was no activity in 2006. Unit costs are based on quoted Elster prices. Meter cost based on mix of meters as follows:					
	Qty	Unit Price w/ PST	Total	Avg Meter	
1 ph Residential	9000	93.09	837,810		
Network meters	628	144.45	90,715		
1 ph Commercial	140	123.05	17,227		
Polyphase Node	300	532.86	159,858		
1 ph Alpha Collectors	16	856.00	13,696		
	<hr/> 10084		<hr/> 1,119,306	<hr/> \$ 111.00	
<u>Smart Meter Installation Cost per Unit</u>					\$50/meter
Estimated cost to install meters. Pilot will allow better cost information for future years.					
<u>Smart Meter Other Cost per unit</u>					\$14.58 Avg/meter
Other costs are included to allow the installation of meters as follows:					
4jaw to 5 jay adapters	140	90.95	12,733		
A to S base adapters	130	40.66	5,286		
Meter Rings	3000	4.60	13,803		
Inst Trans Upgrade	125	321.00	40,125		
Repair meter base lugs	50	101.65	5,083		
Administrative Cost			<hr/> 70,000		
			147,029	\$ 14.58	
<u>AMI Computer Hardware Costs</u>					
Server for AMI system.					\$10,000
<u>AMI Computer Software Costs</u>					
Elster has provided estimated costs for the AMI system.					\$70,000
<u>Other Computer Hardware Costs</u>					
It is not clear how the “morning after” reporting by web and telephone is to be handled. It is assumed that that requirement will be met through functionality added to the CIS system (web access) and a telephone system. An estimated cost has been included in 2008 costs.					\$5,000

<u>Other Computer Software Costs</u>	
Costs related to the interface between MDM/R are not known at this stage. A rough estimate has been included in 2008.	\$5,000
Software additions to the CIS system will be required for the web presentment “morning after” usage data. An estimated cost is included in 2008.	\$25,000
<u>Incremental AMI Operational Expenses</u>	
Bell costs for meter data collection	2007 - \$960 2008 - \$6720 2009>- \$6720
Elster System Support based on \$14,000/year	\$14,000/yr
MDM/R – lacking details on the costing arrangements for the MDM/R, a cost of cents per transaction has been included	2008 - \$19,800 2009>- \$37,800

ORPC applied to the OEB (EB-2006-0350) for the reallocation of \$142,000 within the C&DM program from a load management project to a smart meter pilot program. The load management project allowed for a load management system, used by our predecessor company Pembroke Hydro, which controlled water heating and electric heating load within the City of Pembroke to be brought back into service. It does not appear that the market structure will allow this type of program to be feasible so it was decided to seek a reallocation of the C&DM monies.

On February 6, 2007, we were granted approval for the reallocation of \$142,000 within the C&DM program. This will provide funding for a large portion of the planned 2007 expenditures for the pilot program.

Signed this 8th day of February 2007

Douglas Fee
President and CEO

\\Server\data\ORPC Files\Administration\A01- Assoc\OEB Smart Meters\Smart Meter Mgrs SummaryFeb 07.doc



Ontario Energy Board

2007 EDR Smart Meter Rate Calculation Model

Sheet 1 Utility Information Sheet

Legend:	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:

Licence Number: Smart Meter Grouping:

IRM 2007 EB Number:

EDR 2006 RP Number: EDR 2006 EB Number:

Date of Submission: Revision:

Version: 1.0

Contact Information

Name:

Title:

Phone Number:

E-Mail Address:

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

Ottawa River Power Corporation

EB-2007-0567

Saturday, January 00, 1900

Sheet 2. Smart Meter Capital Cost and Operational Expense Data

Smart Meter Unit Installation Plan: (From Smart Meter Plan filed December 15, 2006)

assume calendar year installation

	2006	2007	2008	2009	2010	Total
Planned number of Residential smart meters to be installed	-	500	4,000	4,516	-	9,016
Planned number of General Service Less Than 50 kW smart meters	-	50	500	518	-	1,068
Planned Meter Installation (Residential and Less Than 50 kW only)	-	550	4,500	5,034	-	10,084
Planned Meter Installation Completed before January 1, 2008		550				

Smart Meter Unit Cost

Smart Meter Unit Cost

Enter the invoiced cost per smart meter purchased
Please provide details in Manager's Summary

Per Unit	
\$ 111.00	A

Smart Meter Other Unit Cost

Enter the invoiced other costs per smart meter unit purchased
Please provide details in Manager's Summary

\$ -	B
------	---

Smart Meter Installation Cost per Unit

Enter the time and material cost per smart meter unit installed
Please provide details in Manager's Summary

\$ 50.00	C
----------	---

Smart Meter Other Cost per Unit

Enter the other cost per smart meter unit installed
Please provide details in Manager's Summary

\$ 14.58	D
----------	---

Total Unit cost per Smart Meter

\$ 175.58	E = A + B + C + D
-----------	-------------------

3. LDC Assumptions and Data

AMI Capital Cost

AMI Computer Hardware Costs

Enter the estimated capital costs for AMI related Computer Hardware
Please provide details in Manager's Summary

2006	2007	2008	2009	2010	Total	
\$ -	\$ 10,000	\$ -	\$ -	\$ -	\$ 10,000	F

3. LDC Assumptions and Data

AMI Computer Software Costs

Enter the estimated capital costs for AMI related Computer Software
Please provide details in Manager's Summary

2006	2007	2008	2009	2010	Total	
\$ -	\$ 70,000	\$ -	\$ -	\$ -	\$ 70,000	G

3. LDC Assumptions and Data

Total AMI Capital Cost

\$ -	\$ 80,000	\$ -	\$ -	\$ -	\$ 80,000	H = F + G
------	-----------	------	------	------	-----------	-----------

Other Capital Cost

Other Computer Hardware Costs

Enter the estimated capital costs for other related Computer Hardware
Please provide details in Manager's Summary

2006	2007	2008	2009	2010	Total	
\$ -	\$ -	\$ 5,000	\$ -	\$ -	\$ 5,000	I

3. LDC Assumptions and Data

Other Computer Software Costs

Enter the estimated capital costs for other related Computer Software
Please provide details in Manager's Summary

\$ -	\$ -	\$ 25,000	\$ -	\$ -	\$ 25,000	J
------	------	-----------	------	------	-----------	---

3. LDC Assumptions and Data

Total Other Capital Cost

\$ -	\$ -	\$ 30,000	\$ -	\$ -	\$ 30,000	K = I + J
------	------	-----------	------	------	-----------	-----------

Incremental AMI Operational Expenses

Incremental AMI O&M Expenses

Enter the estimated incremental AMI related O&M expenses
Please provide details in Manager's Summary

2006	2007	2008	2009	2010	Total	
\$ -	\$ 14,960	\$ 39,720	\$ 58,520	\$ 58,520	\$ 171,720	L

3. LDC Assumptions and Data

Incremental AMI Admin Expenses

Enter the estimated incremental AMI related Admin expenses
Please provide details in Manager's Summary

\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	M
------	------	------	------	------	------	---

3. LDC Assumptions and Data

Total Incremental AMI Operation Expenses

\$ -	\$ 14,960	\$ 39,720	\$ 58,520	\$ 58,520	\$ 171,720	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

2006	2007	2008	2009	2010	Total	
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	O

3. LDC Assumptions and Data

Incremental Other Admin Expenses

Enter the estimated incremental Other related Admin expenses
Please provide details in Manager's Summary

\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	P
------	------	------	------	------	------	---

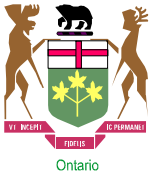
3. LDC Assumptions and Data

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

Ottawa River Power Corporation

EB-2007-0567

Saturday, January 00, 1900

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

50% 4. Smart Meter Rate Calc

50% 4. Smart Meter Rate Calc

7.25% 4. Smart Meter Rate Calc

9.00% 4. Smart Meter Rate Calc

8.13%

2006 EDR Total Metered Customers

Sum of Residential, General Service, and Large User

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

10,151 4. Smart Meter Rate Calc

2006 EDR Tax Rate

Corporate Income Tax Rate

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

18.62% 5. PILs

Capital Data:

Smart meter including installation (\$175.58 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)

	2006	2007	2008	2009	2010	Total
\$	-	\$ 96,569	\$ 790,110	\$ 883,870	\$ -	\$ 1,770,549
\$	-	\$ 10,000	\$ 5,000	\$ -	\$ -	\$ 15,000
\$	-	\$ 70,000	\$ 25,000	\$ -	\$ -	\$ 95,000
\$	-	\$ 176,569	\$ 820,110	\$ 883,870	\$ -	\$ 1,880,549

6. SM Avg Net Fixed Assets & UCC

LDC Amortization Policy:

Smart Meter Amortization Rate Enter Amortization Policy

Computer Hardware Amortization Rate Enter Amortization Policy

Computer Software Amortization Rate Enter Amortization Policy

15 Years 6. SM Avg Net Fixed Assets & UCC

5 Years 6. SM Avg Net Fixed Assets & UCC

3 Years 6. SM Avg Net Fixed Assets & UCC

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)

	2006	2007	2008	2009	2010	Total
\$	-	\$ 14,960	\$ 39,720	\$ 58,520	\$ 58,520	\$ 171,720
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -
\$	-	\$ 14,960	\$ 39,720	\$ 58,520	\$ 58,520	\$ 171,720

4. Smart Meter Rate Calc

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

	Per Meter	Installed	Investment	% of Invest
\$	175.58	10,084	\$ 1,770,549	86%
\$	1.49	10,084	\$ 15,000	0%
\$	9.42	10,084	\$ 95,000	0%
\$	17.03	10,084	\$ 171,720	0%
\$	203.52		\$ 2,052,269	86%



Smart Meter Rate Calculation

Average Asset Values

Net Fixed Assets Smart Meters (6. SM Avg Net Fixed Assets & UCC)	\$	46,675	
Net Fixed Assets Computer Hardware (6. SM Avg Net Fixed Assets & UCC)	\$	4,500	
Net Fixed Assets Computer Software (6. SM Avg Net Fixed Assets & UCC)	\$	29,167	
Total Net Fixed Assets	\$	80,342	

2007	
\$	46,675
\$	4,500
\$	29,167
\$	80,342

A

Working Capital

Operation Expense	\$	14,960	
15 % Working Capital	\$	2,244	\$ 2,244

\$	14,960	
\$	2,244	\$ 2,244

B

Smart Meters included in Rate Base

\$	82,586
----	--------

C = A + B

Return on Rate Base

Deemed Debt (3. LDC Assumptions and Data)	50.0%	\$	41,293	
Deemed Equity (3. LDC Assumptions and Data)	50.0%	\$	41,293	
		\$	82,586	

50.0%	\$	41,293
50.0%	\$	41,293
	\$	82,586

D = C * Deemed Debt
 E = C * Deemed Equity

Weighted Debt Rate (3. LDC Assumptions and Data)	7.3%	\$	2,994	
Proposed ROE (3. LDC Assumptions and Data)	9.0%	\$	3,716	

7.3%	\$	2,994
9.0%	\$	3,716

F = D * Weighted Debt Rate
 G = E * Proposed ROE
 H = F + G

Return on Rate Base

\$	6,710	\$	6,710
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Operating Expenses

Incremental Operating Expenses (3. LDC Assumptions and Data)	\$	14,960	
--------------------------------------------------------------	----	--------	--

\$	14,960
----	--------

I

Amortization Expenses

Amortization Expenses - Smart Meters (6. SM Avg Net Fixed Assets & UCC)	\$	3,219	
Amortization Expenses - Computer Hardware (6. SM Avg Net Fixed Assets & UCC)	\$	1,000	
Amortization Expenses - Computer Software (6. SM Avg Net Fixed Assets & UCC)	\$	11,667	

\$	3,219
\$	1,000
\$	11,667

Total Amortization Expenses

\$	15,886	^{5. PILs}
----	--------	--------------------

J

Revenue Requirement Before PILs

\$	37,556
----	--------

K = H + I + J

Calculation of Taxable Income

Incremental Operating Expenses	-\$	14,960	
Depreciation Expenses	-\$	15,886	
Interest Expense	-\$	2,994	

-\$	14,960
-\$	15,886
-\$	2,994

I
 J
 F

Taxable Income For PILs

\$	3,716	^{5. PILs}
----	-------	--------------------

L = K - I - J - F

Grossed up PILs (5. PILs)

-\$	35
-----	----

M

Revenue Requirement Before PILs	\$	37,556	
Grossed up PILs (5. PILs)	-\$	35	

\$	37,556
-\$	35

K
 M

Revenue Requirement for Smart Meters

\$	37,520
----	--------

N = K + M

2007 Smart Meter Rate Adder

Revenue Requirement for Smart Meters	\$	37,520	
2006 EDR Total Metered Customers (3. LDC Assumptions and Data)		10,151	
Annualized amount required per metered customer	\$	3.70	
Number of months in year		12	

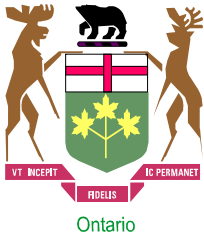
\$	37,520
	10,151
\$	3.70
	12

O = 2006 EDR Total Metered Customers
 P = N / O
 Q
 R = P / Q

2007 Smart Meter Rate Adder

\$	0.31
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Enter this amount in the 2007 IRM Model sheet "4. 2006 Smart Meter Information" in cells F 17 thru F 32 (as required)



2007 EDR Smart Meter Rate Calculation Model

Ottawa River Power Corporation

EB-2007-0567

Saturday, January 00, 1900

Sheet 5. PILs

PILs Calculation

INCOME TAX

Net Income (4. Smart Meter Rate Calc)	\$	3,716
Amortization (4. Smart Meter Rate Calc)	\$	15,886
CCA - Class 47 (8%) Smart Meters (6. SM Avg Net Fixed Assets &UCC)	-\$	3,863
CCA - Class 45 (45%) Computers (6. SM Avg Net Fixed Assets &UCC)	-\$	18,000
Change in taxable income	-\$	2,261
Tax Rate (3. LDC Assumptions and Data)		18.62%
Income Taxes Payable	-\$	421

ONTARIO CAPITAL TAX

Smart Meters (6. SM Avg Net Fixed Assets &UCC)	\$	93,350
Computer Hardware (6. SM Avg Net Fixed Assets &UCC)	\$	9,000
Computer Software (6. SM Avg Net Fixed Assets &UCC)	\$	58,333
Rate Base	\$	160,683
Less: Exemption	\$	-
Deemed Taxable Capital	\$	160,683
Ontario Capital Tax Rate		0.300%
Net Amount (Taxable Capital x Rate)	\$	482

Gross Up

	PILs Payable	Gross Up	Grossed Up PILs
Change in Income Taxes Payable	-\$ 421	18.62%	-\$ 517
Change in OCT	\$ 482		\$ 482
PIL's	\$ 61		-\$ 35

4. Smart Meter Rate Calc



2007 EDR Smart Meter Rate Calculation Model

Ottawa River Power Corporation

EB-2007-0567

Saturday, January 00, 1900

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)		\$ 96,569	
Closing Capital Investment	\$ -	\$ 96,569	
Opening Accumulated Amortization	\$ -	\$ -	
Amortization Year 1 (15 Years Straight Line)	\$ -	\$ -	
Amortization Year 2 (15 Years Straight Line)		\$ 3,219	
Closing Accumulated Amortization	\$ -	\$ 3,219	
Opening Net Fixed Assets	\$ -	\$ -	
Closing Net Fixed Assets	\$ -	\$ 93,350	5. PILs
Average Net Fixed Assets	\$ -	\$ 46,675	4. Smart Meter Rate Calc

Net Fixed Assets - Computer Hardware

	2006	2007	
Opening Capital Investment	\$ -	\$ -	
Capital Investment Year 1 (3. LDC Assumptions and Data)	\$ -		
Capital Investment Year 2 (3. LDC Assumptions and Data)		\$ 10,000	
Closing Capital Investment	\$ -	\$ 10,000	
Opening Accumulated Amortization	\$ -	\$ -	
Amortization Year 1 (5 Years Straight Line)	\$ -	\$ -	
Amortization Year 2 (5 Years Straight Line)		\$ 1,000	
Closing Accumulated Amortization	\$ -	\$ 1,000	
Opening Net Fixed Assets	\$ -	\$ -	
Closing Net Fixed Assets	\$ -	\$ 9,000	5. PILs
Average Net Fixed Assets	\$ -	\$ 4,500	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)		\$ 70,000	
Closing Capital Investment	\$ -	\$ 70,000	
Opening Accumulated Amortization	\$ -	\$ -	
Amortization Year 1 (3 Years Straight Line)	\$ -	\$ -	
Amortization Year 2 (3 Years Straight Line)		\$ 11,667	
Closing Accumulated Amortization	\$ -	\$ 11,667	
Opening Net Fixed Assets	\$ -	\$ -	
Closing Net Fixed Assets	\$ -	\$ 58,333	5. PILs
Average Net Fixed Assets	\$ -	\$ 29,167	4. Smart Meter Rate Calc



2007 EDR Smart Meter Rate Calculation Model

Ottawa River Power Corporation

EB-2007-0567

Saturday, January 00, 1900

Sheet 6. SM Avg Net Fixed Assets &UCC

For PILs Calculation

UCC - Smart Meters

CCA Class 47 (8%)	2006	2007
Opening UCC	\$ -	\$ -
Capital Additions	\$ -	\$ 96,569
UCC Before Half Year Rule	\$ -	\$ 96,569
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ 48,285
Reduced UCC	\$ -	\$ 48,285
CCA Rate Class 47	8%	8%
CCA	\$ -	\$ 3,863
Closing UCC	\$ -	\$ 92,706

5. PILs

UCC - Computer Equipment

CCA Class 45 (45%)	2006	2007
Opening UCC	\$ -	\$ -
Capital Additions Hardware	\$ -	\$ 10,000
Capital Additions Software	\$ -	\$ 70,000
UCC Before Half Year Rule	\$ -	\$ 80,000
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ 40,000
Reduced UCC	\$ -	\$ 40,000
CCA Rate Class 45	45%	45%
CCA	\$ -	\$ 18,000
Closing UCC	\$ -	\$ 62,000

5. PILs