

**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 PowerStream Inc. for an order or orders approving or fixing a just and reasonable distribution rates related to Smart Meter deployment, to be effective November 1, 2010.

**PowerStream Inc. (“PowerStream”)  
Responses to Board Staff Interrogatories**

**Delivered August 31, 2010**

**1) Ref: Application, pp. 15 and 19 – Smart Meter Costs and Disposition Rider**

PowerStream states that the costs shown in Table 1: Summary of Smart Meter Costs, on page 15, with the exception of the projected 2010 OM&A costs related to 2008 and 2009 smart meters, are actual costs taken from PowerStream’s financial records as at December 31, 2009. *Guideline G-2008-0002: Smart Meter Funding and Cost Recovery*, issued October 22, 2008 states that “when applying for recovery of smart meter costs, a distributor should ensure that all cost information has been audited, including the smart meter related deferral account balances”.

- a) Please provide further explanation why projected 2010 OM&A costs, that are neither actual nor audited, are included in the calculation of the smart meter revenue requirement.
- b) Please provide a description of the OM&A costs incurred and confirm that these costs are incremental to the OM&A expenses that are recovered through distribution rates.

**Response**

- a) In its *Guideline G-2008-0002: Smart Meter Funding and Cost Recovery*, on page 13, the OEB states:

*In an application made for smart meter cost recovery in a non-cost of service proceeding, a distributor will need to file the following information in relation to the smart meter disposition rider in addition to the information listed in section 5.1 above:*

- *calculation of the disposition rider for recovery of capital and ongoing operating costs*
- *the methodology for allocating the disposition rider to different customer classes*

*A distributor can rely on the order obtained in the non-cost of service proceeding in subsequent rate proceedings as evidence that the Board has reviewed and approved the underlying costs. In its next cost of service application, the distributor should include the approved smart meter capital and operating costs in its application and seek approval for the discontinuation of the smart meter disposition rider.*

This indicates that the calculation of the smart meter rate rider, referred to as the disposition rider in the excerpt above, is intended to be similar to the calculation of the revenue requirement related to smart meters in a cost of service application. In the case of the smart meter application, the calculation is limited to the smart meters that would be added to rate base, and it is to include both capital and ongoing operating costs.

PowerStream has taken the budgeted incremental smart meter operating costs for 2010 from its 2010 IRM rate application (EB-2009-0246), Appendix E: Smart Meter Rate Calculation Model and allocated these costs between the meters installed in 2008 and 2009 that are included in the disposition rate rider, and those to be installed in 2010. The operating costs related to the meters installed in 2008 and 2009 were included in calculating the Smart Meter rate rider. The costs related to the meters to be installed in 2010 remain in the costs used to calculate the revised 2010 smart meter funding adder.

The disposition rider guidance above is a change from the direction provided in Appendix E to the Board's Decision in the 2007 Combined Proceeding (EB-2007-0063) where utilities were instructed to calculate a Permanent Capital Rate Adjustment that excluded operating costs. At that time, this implied that incremental operating costs related to Smart Meters would continue to be deferred in account 1556.

The actual OM&A costs incurred in 2009 are not representative of the ongoing costs for the meters installed in 2008 and 2009 as the 2009 installed meters were only in service for part of a year. In 2010 there will be a full year of costs for all of the meters installed in 2008 and 2009. As well, 2009 costs do not include charges for use of the Provincial Meter Data Management and Repository ("MDM/R"). The use of estimated 2010 costs is more reflective of the actual ongoing OM&A costs related to the meters installed in 2008 and 2009.

As a practical matter, the MDM/R costs have not yet been set. Given this uncertainty, any variance between actual operating costs and the estimated or actual historical costs included in rates should be tracked in Account 1556 – the Smart Meter OM&A Variance Account.

- b) Incremental operating costs consist mainly of:
  - i. the monthly cost of operating the advanced metering infrastructure ("AMI") that collects data from the smart meters and send this to the MDM/R, less any savings realized on conventional meter readings;

- ii. monthly charges from the Provincial MDM/R (no amounts in actual costs, estimated for 2010); and
- iii. communications costs, including information packages and customer calls regarding smart meters and time of use ("TOU") billing.

Most of the costs associated with smart meters are new and distinct from existing costs, and are easily identifiable.

Only AMI operating and MDM/R costs related to the smart meters installed in 2007 were included in the OM&A amounts for 2009 used in PowerStream's 2009 cost of service rate application.

AMI operating and MDM/R costs for meters installed after 2007 and the entire amount of 2009 customer communication, business process redesign and change management costs related to all smart meters, were not included in the OM&A costs used to set 2009 rates.

## 2) Ref: Application. pg. 19 – Smart Meter Actual Cost Recovery Calculation

In Table 4 on page 19, PowerStream documents the calculation of the smart meter disposition rate rider. The table summarizes the revenue requirement from January 1, 2008 to October 31, 2010, related to smart meters installed in 2008 and 2009. This revenue requirement is offset by revenues received from the smart meter funding adder collected over the period January 1 2008 to April 30, 2010, and carrying costs for the same time period.

- a) Please explain why PowerStream feels it is appropriate to have different time periods for the revenue requirement calculation and the offsetting funding adder revenues, respectively.
- b) Please provide a similar table to Table 4, but calculating the total revenue requirement, including OM&A costs, as well as the funding received through the smart meter funding adder plus carrying costs based on audited costs as of December 31, 2009.

### **Response**

- a) PowerStream has followed the Board Staff model used for disposition of smart meter costs to December 31, 2007 that was approved in its 2009 cost of service rate application (referred to here as the "2009 EDR proceeding", OEB file number EB-2008-0244). In that case, for rates effective May 1, 2009, the revenue requirement was calculated up to April 30, 2009. The offsetting smart meter funding adder revenues up to December 31, 2007 were applied against the revenue requirement.

The revenue requirement calculation period begins when the smart meter costs start to be incurred. As PowerStream has already cleared costs up to December 31, 2007, the start date is January 1, 2008.

The ending date of the time period for the revenue requirement calculation is based on when the revenue requirement will be satisfied by inclusion in rates either through new cost of service rates or a smart meter disposition rate rider. As the application for a disposition rate rider is to be effective November 1, 2010, the revenue requirement calculation has been based on the period ending October 31, 2010.

PowerStream submits that it is more appropriate to use smart meter funding adder revenues up to April 30, 2010 rather than using December 31, 2009, even though the use of December 31, 2009 would be consistent with the approach used by the OEB in PowerStream's 2009 EDR proceeding. This was based on the fact that actual smart meter funding adder revenue data was available up to April 30, 2010 and this adder was for 2008 and 2009 planned smart meter installations.

b) For the purpose of responding to this interrogatory, PowerStream has prepared a copy of the Actual Smart Meter Cost Recovery Model, and provided a copy as Appendix 1. As requested, PowerStream has removed estimated operating costs for 2010 and included smart meter funding adder revenues up to December 31, 2009 only. On this basis, table 4 appears as follows:

**Table Staff 2-1: Rate Rider Calculation per Staff IR #2**

<b>Rate Rider to Recover Actual Smart Meter Costs to December 31, 2009</b>	
Revenue Requirement 2008	\$1,650,030
Revenue Requirement 2009	\$3,004,081
Revenue Requirement 2010 (to Oct 31/10)	\$2,430,763
<b>Revenue Requirement Total</b>	<b>\$7,084,874</b>
Smart Meter Rate Adder	(\$6,480,690)
Carrying Cost	(\$37,227)
<b>Smart Meter True-up</b>	<b>\$566,956</b>
Metered Customers	249,715
<b>Rate Rider to Recover Smart Meter Costs</b>	<b>\$ 0.38</b>
Recovery period November 1, 2010 to April 30, 2011	

**3) Ref: Application, pg. 15 – Smart Meter Costs**

- a) Please provide a breakdown by customer class of smart meter deployment in the South rate zone for 2008 and 2009.
- b) Please provide a breakdown of actual smart meter costs per customer class for meters deployed in the South zone as of December 31, 2009, showing:
  - i) Capital expenses;
  - ii) One-time operating expenses; and
  - iii) On-going operating expenses as of December 31, 2009.
- c) Please provide a detailed explanation for each of these types of costs referred to in part b).

**Response**

- a) Please see the following table:

**Table Staff 3-1: Smart Meter Deployment by Customer Class**

	2008	2009	Total
Residential	53,262	81,481	134,743
GS<50	None	2,613	2,613
<b>Total</b>	53,262	84,094	137,356

- b) Please see the following tables:

**i) Table Staff 3-2: Capital Costs (\$000) by Customer Class**

	Residential	GS<50 kW	Total
Installed Meter Cost	15,528	1,783	17,311
Other Capital Costs	1,535	30	1,565
<b>Total</b>	17,063	1,813	18,876

“Other capital costs” consists mainly of radio towers, software development and external program management costs. These have been allocated on a per meter basis, as these costs are for the benefit of both customer classes and cannot be directly identified with one customer class or the other.

**ii) Table Staff 3-3: One-Time Operating Expenses (\$000) by Customer Class**

	Residential	GS<50 kW	Total
Meter Base Repairs	52	0	52
Customer Information packages	347	7	353
<b>Total</b>	<b>399</b>	<b>7</b>	<b>406</b>

**iii) Table Staff 3-4: On-going Operating Expenses (\$000) by Customer Class**

	Residential	GS<50 kW	Total
AMI System Operation	1,613	31	1,644
Call Centre Costs	125	2	128
Staff Training and Change Management	48	1	49
<b>Total</b>	<b>1,786</b>	<b>35</b>	<b>1,820</b>

Note: totals may not add exactly due to rounding

PowerStream has divided operating costs between one-time and on-going costs as shown above.

Meter base repair expenses and the cost of the initial customer information packages when a smart meter is installed are shown as one-time costs. It should be noted that there are additional customer information package costs related to these meters in 2010, as these customers are migrated to time of use billing.

The operation of the advanced metering infrastructure used to gather data from the smart meters and send this to the Provincial MDM/R is an on-going operation expense. This cost is increasing as more meters are added to the network. PowerStream has included call centre, staff training and change management as on-going costs. As of December 31, 2009, less than 5% of PowerStream's customers were on Time of Use billing. Customer calls, staff training and change management are continuing throughout 2010 and relate in part to the customers who had smart meters installed in 2008 and 2009.

The AMI system operation expenses are based on a per meter cost that is the same for all meter types. PowerStream expects this will be the case for the Provincial MDM/R as well. Other costs are not directly attributable to specific customer classes. All of the expenses have been allocated to customer classes based on the number of installed meters per class.

**4) Ref: Application, pg. 12 and Appendix 3, pg. 5 – Smart Meter Capital Cost per Meter**

On page 12, PowerStream states that the average capital cost per meter is \$137.43, which compares favourably to the sector average capital cost of \$186.76 derived from the "Sector Smart Meter Audit Review Report" issued by the OEB Regulatory Audit and Accounting Group on March 31, 2010.' On page 5 of Appendix 3 the Applicant shows smart meter capital costs of \$536.30 per meter for smart meters remaining to be deployed in 2010. Please provide a further explanation for the increase in smart meter capital costs per meter for the remainder of smart meters to be deployed in 2010 compared with the costs of smart meters installed from 2006 to the end of 2009.

**Response**

At the request of the Ministry of Energy and Infrastructure, PowerStream and other utilities carrying out smart meter activities have focused on completing the large number of residential meter replacements in advance of commercial meter replacements.

As of December 31, 2009, PowerStream South has most of the residential meters replaced with smart meters. In 2010, PowerStream South's smart meter program is heavily focused on 3 phase commercial smart meters, including demand meters for GS <50 kW customers, who do not have interval meters. Installed unit costs for 3 phase commercial meters are much higher than for the single phase smart meters installed for residential customers, as shown in the table below:

**Table Staff 4-1: PowerStream South Projected 2010 Smart Meter Capital Costs**

	<b>Residential</b>	<b>GS&lt;50 kW</b>	<b>Total</b>
Units	9,500	21,000	30,500
Installed cost	\$ 1,195,651	\$ 14,429,754	15,625,405
Collectors	\$ 47,438	\$ 104,862	152,300
Software development	\$ 73,508	\$ 162,492	236,000
<b>Total Capital Cost</b>	<b>\$ 1,316,597</b>	<b>\$ 14,697,108</b>	<b>\$ 16,013,705</b>
Per meter cost	\$ 138.59	\$ 699.86	\$ 525.04

Note: Collectors and software development are allocated to rate classes based on the number of meters.

The following table shows the projected capital cost per meter based on the actual costs and meters installed up to December 31, 2009 and the planned installation for 2010 as shown above.



**Table Staff 4-2: Smart Meter Deployment and Capital Cost**

<b>Year</b>	<b>Units</b>	<b>Capital Cost</b>	<b>Cost per unit</b>
2007	82,293	\$10,121,905	\$ 123.00
2008	53,262	\$ 6,478,519	\$ 121.63
2009	84,094	\$12,397,838	\$ 147.43
<b>2010</b>	<b>30,500</b>	<b>\$16,013,705</b>	<b>\$ 525.04</b>
Total	250,149	45,011,967	\$ 179.94

The above table shows the impact of the higher cost commercial meters on the average capital cost per meter. It also shows that the average capital cost per meter, with the projected 2010 costs, is still below the average capital cost of \$186.76 derived from the "Sector Smart Meter Audit Review Report" issued by the OEB Regulatory Audit and Accounting Group on March 31, 2010. It is to be expected that the sector average shown in the March 31, 2010 Report will rise as utilities install the more expensive commercial smart meters.

**5) Ref: Application, pg. 15 – Smart Meter Costs**

In Table 1: Summary of Smart Meter Costs, PowerStream is showing Smart Meter and AMI costs of \$18.3 million and CIS costs of about \$600,000. Please provide a breakout of costs for smart meters, AMI, and other systems based on Appendix A of the Board's Decision with Reasons EB-2007-0063, issued August 8, 2007.

**Response**

PowerStream has compiled this data using the Board's Smart Meter Adder model, "Sheet 2. Smart Meter Capital Cost and Operational Expense Data". This format is based on Appendix A of the Board's Decision with Reasons in EB-2007-0063, issued August 8, 2007. Please see attached Appendix 2.

**6) Ref: Application p.18 – Stranded Meter Costs and Appendix 1, p. 2**

PowerStream states that, as of December 31, 2009, PowerStream had replaced 203,790 conventional meters with Smart Meters. PowerStream further stated that proceeds on the scrapped meters are captured in account 1555 as an offset to the costs in the deferral account, in accordance with the Board's *Guideline G-2008-0002* and the Board's January 16, 2007 letter to distributors on stranded meter costs rated to the installation of smart meters.

- a) Has PowerStream realized any other efficiencies or avoided costs due to the conversion to smart meters?
- b) If yes, please identify and describe any such efficiencies or avoided costs.
- c) Please describe how any efficiencies and avoided costs are used to offset OM&A expenses used to derive the incremental revenue requirement calculation, such as shown on page 2 of Appendix 1. If efficiencies and avoided costs have not been reflected in the calculation of the incremental revenue requirement recoverable for installed smart meters, please explain PowerStream's reasons for such treatment.

**Response**

- a) Yes.
- b) PowerStream has achieved some modest savings as it starts to discontinue conventional meter reading when entire meter reading routes are set up on the Provincial MDM/R and Time of Use ("TOU") billing. For 2009 the savings totaled less than \$10,000. These savings will increase as more meters are set up on the MDM/R and TOU billing. The amount is being recorded in account 1556 as an offset to the AMI operational costs.

PowerStream has also avoided re-verification costs on conventional meters as these are being replaced with smart meters. These savings were reflected in the metering costs in PowerStream's 2009 EDR application.

At this point no other efficiencies or avoided costs have been identified. PowerStream has started to explore whether there are any other opportunities for operational efficiencies by utilizing and leveraging the investment in smart meter technology and the information it provides.

- c) The deferred OM&A costs for 2008 and 2009 used in the revenue requirement calculation reflect the amount of savings from discontinuing conventional meter reading. The estimated operating costs for 2010 did not include these savings so the savings will continue to be recorded in the deferral account.

The avoided meter re-verification costs have already been reflected in rates through the 2009 EDR application.

**7) Ref: Application, pg.21 – Smart Meter Cost Allocation**

On page 10, PowerStream states that, in 2010, it plans to install another 100,500 smart meters, at a total cost of approximately \$26.8 million, for both the South and North rate zones. These installations include most of the more complex and costly general service/commercial smart meter replacements. Appendix 3 documents 30,500 installations in the South rate zone in the spreadsheet to derive the new Smart Meter Funding Adder. This is composed of 9,500 residential meters, 18,000 GS<50 kW meters and 3,000 meters for the GS>50 kW customer class.

- a) Do any of these installations involve replacement of interval meters used by customer classes other than residential and GS<50 kW with smart meters?
- b) If yes, how many?
- c) Does PowerStream's AMI system interface with or collect information from interval meters used by customers in classes other than Residential or GS<50 kW? If so, please explain.

**Response**

- a) PowerStream's Smart Meter Implementation program involves replacement of only residential and GS<50 kW meters and does not include replacing interval meters with smart meters. Please note that there was an error in Appendix 3 to the Application: all 21,000 commercial meters are in fact for GS<50 kW customers.
- b) None.
- c) No, PowerStream's AMI system does not collect information from interval meters, which are only used by larger customers in the GS>50 kW and Large Use classes. PowerStream uses an MV90 system to collect information from interval meters.

**8) Ref: Application, pp. 21-22, Appendix 2**

PowerStream stated that it has allocated a revenue requirement of \$4.1 million between the Residential and the GS< 50 kW customer classes which received the meters covered by the disposition rate rider. PowerStream further states that the revenue requirement has been allocated as follows:

- Return (deemed interest plus return on equity) and Amortization have been allocated between the customer classes based on the capital costs of the meters installed for each class;
  - OM&A has been allocated based on the number of meters installed for each class;
  - PILs have been allocated based on the revenue requirement allocated to each class before PILs.
- a) Please confirm that smart meter costs per customer are identical between the Residential and GS<50 kW customer classes.
- b) If not, please provide a breakdown of costs per customer in their respective classes and explain the differences.
- c) Please elaborate on the cost allocation methodology used by PowerStream in this application. In particular, please explain the derivation or rationale for how the different allocators were determined for PILs, OM&A and Return and Amortization.
- d) Please describe the cost allocation approach used in previous applications by PowerStream for smart meter cost recovery (i.e., in the combined Smart Meter proceeding (EB-2007-0063) and PowerStream's 2009 smart meter cost recovery (EB-2008-0244)).
- e) If the approach used in d) above differs from the approach proposed in the instant application, please explain why PowerStream feels that it is appropriate to change cost allocation methodologies at this time.

**Response**

- a) Smart Meter costs per customer are not the same for the residential and the GS<50 kW classes. The installed cost per meter differs greatly for a residential single phase meter compared to a 3 phase meter used for a GS<50 kW customer. Other capital cost such as radio towers (collectors) are the same and based on the number of meters without regard to the type of meter. Software development costs cannot be directly identified

with one customer class versus another. It is reasonable to allocate these other capital costs on a per meter basis.

Operating costs such as the AMI operating cost are the same on a per meter per month basis, regardless of the meter or customer type. PowerStream does not expect any significant differences between customer classes in the incremental cost per customer for customer service and billing costs resulting from smart meters. It is reasonable to allocate these costs on a per meter basis.

- b) The table below shows the Revenue Requirement allocation per installed meter and per customer for each customer class.

**Table Staff 8-1: Revenue Requirement per Customer**

	<b>Residential</b>	<b>GS&lt;50 kW</b>	<b>Total</b>
Meters Installed	134,743	2,613	137,356
Revenue allocated	\$ 3,836,220	\$ 295,337	\$ 4,131,557
<b>Per installed meter</b>	<b>\$ 28.47</b>	<b>\$ 113.03</b>	<b>\$ 30.08</b>
Customers	219,943	23,818	243,761
<b>Per Customer</b>	<b>\$ 17.44</b>	<b>\$ 12.40</b>	
<b>per month</b>	<b>\$ 1.45</b>	<b>\$ 1.03</b>	

The revenue requirement per installed meter is significantly higher for the GS<50 kW class. This is driven by the much higher installed cost of the meter and its impact on revenue requirement. However, as only a small percentage of the GS<50 kW customers have had their meters replaced with smart meters as at December 31, 2009, the cost per customer is much lower when spread across the entire customer class.

The components making up the revenue requirement and the cost per installed meter are discussed below.

The capital cost directly drives the largest portion of the revenue requirement, return and amortization totaling \$2.7 million or 65% of the total revenue requirement of \$4.1 million. PowerStream has identified the capital cost of installed meters for each customer class. This is summarized in the table below:

**Table Staff 8-2: Capital Cost by Customer Class**

	Residential	GS<50 kW	Total
Meters Installed	134,743	2,613	137,356
Installed Meter Cost (\$000)	\$ 15,528	\$ 1,783	\$ 17,311
Other capital Costs (\$000)	\$ 1,535	\$ 30	\$ 1,565
<b>Total</b>	<b>\$ 17,063</b>	<b>\$ 1,813</b>	<b>\$ 18,876</b>
Cost per Meter			
Installed Meter Cost	\$ 115	\$ 682	\$ 126
Other Capital Costs	\$ 11	\$ 11	\$ 11
<b>Total Capital Cost per Meter</b>	<b>\$ 127</b>	<b>\$ 694</b>	<b>\$ 137</b>

There is a significant difference in the cost of an installed 3 phase smart meter used for the GS<50 customers and the cost of an installed single phase smart meter used for residential customers. Both the cost of the meter and the installation costs are significantly higher. This accounts for the difference in the capital cost per meter between the two customer classes.

The table below shows the return portion of the revenue requirement per customer for each customer class.

**Table Staff 8-3: Return per Customer**

	Residential	GS<50 kW	Total
Meters Installed	134,743	2,613	137,356
Return Allocated	\$ 1,134,354	\$ 119,117	\$ 1,253,471
<b>Per installed meter</b>	<b>\$ 8.42</b>	<b>\$ 45.59</b>	<b>\$ 9.13</b>
Customers	219,943	23,818	243,761
<b>Per Customer</b>	<b>\$ 5.16</b>	<b>\$ 5.00</b>	

The return (cost of debt plus allowed return), calculated in the Actual Smart Meter Cost Recovery model, was allocated between the customer classes on the basis of the capital cost for each class. The capital cost is the main component of and a close proxy for the rate base on which the return is calculated.

The higher return per installed meter for the GS<50 kW class reflects its higher cost per installed meter which contributes proportionally more to rate base and the return.

The table below shows the amortization portion of the revenue requirement per customer for each customer class.



**Table Staff 8-4: Amortization per Customer**

	Residential	GS<50 kW	Total
Meters Installed	134,743	2,613	137,356
Amortization allocated	\$ 1,281,660	\$ 134,585	\$ 1,416,245
<b>Per installed Meter</b>	<b>\$ 9.51</b>	<b>\$ 51.51</b>	<b>\$ 10.31</b>
Customers	219,943	23,818	243,761
<b>Per Customer</b>	<b>\$ 5.83</b>	<b>\$ 5.65</b>	

Amortization is based on 15 years straight line amortization of the original cost for all smart meters. The amortization, calculated in the Actual Smart Meter Cost Recovery model, was allocated between the customer classes on the basis of the original capital cost for each class.

The higher amortization per installed meter for the GS<50 kW class reflects its higher cost per installed meter which contributes proportionally more to amortization expense.

The table below shows the OM&A portion of the revenue requirement per customer for each customer class.

**Table Staff 8-5: Incremental OM&A Cost by Customer Class**

	Residential	GS<50 kW	Total
Meters Installed	134,743	2,613	137,356
OM&A Allocated	\$ 1,175,504	\$ 22,796	\$ 1,198,300
<b>Per installed Meter</b>	<b>\$ 8.72</b>	<b>\$ 8.72</b>	<b>\$ 8.72</b>
Customers	219,943	23,818	243,761
<b>Per Customer</b>	<b>\$ 5.34</b>	<b>\$ 0.96</b>	

PowerStream has allocated the incremental OM&A costs on a per meter basis. For those costs that are charged on a per meter basis the cost is the same for all meter types and customer classes. Other costs are common to both classes. See discussion in part (a) above. As a result the cost per installed meter is the same. The lower cost per customer for the GS<50 kW class is due to the low percentage of customers in this class that have had their meters replaced with smart meters as of December 31, 2009.

The table below shows the PILs portion of the revenue requirement per customer for each customer class.

**Table Staff 8-6: PILS per Customer**

	Residential	GS<50 kW	Total
Meters Installed	134,743	2,613	137,356
PILs Allocated	\$ 244,702	\$ 18,839	\$ 263,541
<b>Per installed Meter</b>	<b>\$ 1.82</b>	<b>\$ 7.21</b>	<b>\$ 1.92</b>
Customers	219,943	23,818	243,761
<b>Per Customer</b>	<b>\$ 1.11</b>	<b>\$ 0.79</b>	

PILS expense is driven by net income which is represented by the proxy revenue requirement allocated before PILs. This was used to allocate the PILs expense, calculated in the Actual Smart Meter Cost Recovery model, between the customer classes.

The higher PILs per installed meter for the GS<50 kW class reflects its higher cost per installed meter which contributes proportionally more to net income and PILs expense.

- c) PowerStream took the revenue requirement as determined in the Actual Smart Meter Cost Recovery model and allocated it to the customer classes as described in part (b) above.

The allocation calculation started with determining the capital cost by customer class since this largely determines rate base, which is the main driver of revenue requirement in this case.

Since return is based on rate base, fixed asset cost for each class was used as the proxy for rate base and to allocate return between the classes.

Amortization is based on fixed asset cost so fixed asset cost for each class was used to allocate amortization between the classes. All the meters installed have the same useful life and amortization method.

OM&A was allocated on a per meter basis for the reasons stated in the response to part (a) of this question.

PILs expense is calculated on net income for tax purposes. The revenue requirement before PILs was used as a proxy for net income and used to allocate the PILs expense between the classes.

- d) PowerStream commenced installing smart meters in the spring of 2007. PowerStream had very few costs as of December 31, 2006 and did not

make a claim for recovery during the combined Smart Meter proceeding (EB-2007-0063).

PowerStream's first claim for smart meter cost recovery was in its 2009 EDR application (EB-2008-0244), referred to in the staff question as the "2009 smart meter cost recovery". The claim involved costs related to the 82,293 residential smart meters installed through December 31, 2007.

For purposes of PowerStream's 2009 EDR Application:

- Smart meter assets were added to fixed assets and the amortization thereon was included in amortization expense.
- Incremental OM&A costs for 2009, related to the 82,293 meters installed in 2007 and added to rate base, were included in the OM&A expenses. These incremental costs consisted of AMI operating costs and estimated Provincial MDM/R costs related to the 2007 meters only.
- Stranded meters in account 1555 were added to fixed assets and the amortization thereon was included in amortization expenses.

These smart meter assets and expenses were included in the calculation of the overall 2009 revenue requirement. The overall revenue requirement was subject to the cost allocation exercise. There was no special consideration or cost allocation specific to smart meters.

- e) In its 2009 EDR, the cost allocation issue was dealt with on an overall basis as this was a cost of service rate application. There was no allocation specific to smart meter costs.

The current Application is a smart meter cost recovery application only. As noted above, in the *Guideline G-2008-0002: Smart Meter Funding and Cost Recovery (the "Guideline")*, on page 13, the OEB states:

*In an application made for smart meter cost recovery in a non-cost of service proceeding, a distributor will need to file the following information in relation to the smart meter disposition rider in addition to the information listed in section 5.1 above:*

- *calculation of the disposition rider for recovery of capital and ongoing operating costs*
- *the methodology for allocating the disposition rider to different customer classes*

The Guideline does not offer any guidance on how the disposition rider is to be allocated to different customer classes. It states only that the methodology be disclosed.

PowerStream submits that the method of allocation of the revenue requirement from smart meter costs, described in parts (b) and (c) above, is conceptually similar to the methodology in the Board Approved Cost Allocation model albeit much simpler due to the limited costs being considered. It allocates rate base and determines return by customer class. It allocates OM&A to the customer classes on a logical basis.

**9) Ref: Application p. 24 – Rate Change Summary and Bill Impacts**

On page 24, table 8, PowerStream shows total change for other metered customers of \$0.87. This represents a reduction of \$0.94 from the current smart meter funding adder of \$1.81.

a) Please provide a table showing the smart meter funding collected through the funding adder from January 1, 2006 to April 30, 2010 per customer class for all customer classes.

b) Please explain why PowerStream has not proposed to allocate costs between classes when calculating the Smart Meter Disposition Rate Rider.

**Response**

a) Please see Appendix 3.

b) PowerStream did not consider allocating the costs between classes when calculating the disposition rider for the Actual Smart Meter Cost Recovery (difference between the revenue requirement to October 31, 2010 determined in the Actual Smart Meter Cost Recovery model and the Smart Meter Funding adder collected).

PowerStream's review of the guidance issued by the OEB did not reveal this as a requirement. PowerStream notes that the calculation of the Smart Meter Disposition ("Actual Cost Recovery") rate rider on a rate class basis is a departure from the Board's treatment of smart meter costs in PowerStream's 2009 EDR proceeding.

In response to this question, PowerStream has prepared a calculation on a rate class basis by dividing the capital cost and OM&A for each year between the rate classes. These are shown in the tables below.

**Table Staff 9-1: Capital Costs by Rate Class**

<b>Capital Costs - 2008</b>	<b>Residential</b>	<b>GS&lt;50 kW</b>	<b>Total</b>
Costs - meters and AMI system	\$ 6,156,013	\$ -	\$ 6,156,013
Software development	\$ 319,502	\$ 6,196	\$ 325,698
<b>2008 Total</b>	<b>\$ 6,475,515</b>	<b>\$ 6,196</b>	<b>\$ 6,481,711</b>
<b>Capital Costs - 2009</b>			
Costs - meters and AMI system	\$ 10,325,823	\$ 1,802,692	\$ 12,128,515
Software development	\$ 261,068	\$ 5,063	\$ 266,131
<b>2009 Total</b>	<b>\$ 10,586,891</b>	<b>\$ 1,807,755</b>	<b>\$ 12,394,646</b>
<b>Capital costs total for 2008 and 2009</b>	<b>\$ 17,062,406</b>	<b>\$ 1,813,951</b>	<b>\$ 18,876,357</b>

Capital cost per installed meter was split between classes based on the costs for each type of meter and installation. Capital costs for radio towers, software development and other capital was allocated based on the number of meters.

**Table Staff 9-2: OM&A Costs by Rate Class**

<b>OM&amp;A</b>	<b>Residential</b>	<b>GS&lt;50 kW</b>	<b>Total</b>
2008	\$ 1,116,199	\$ 984	\$ 1,117,183
2009	\$ 1,082,767	\$ 25,987	\$ 1,108,754
<b>Total</b>	<b>\$ 2,198,966</b>	<b>\$ 26,971</b>	<b>\$ 2,225,937</b>

OM&A costs were allocated to the classes based on the number of meters.

These amounts and the Smart Meter Adder collected by rate class were used as inputs to create an Actual Smart Meter Cost Recovery model for each rate class. This was done using audited costs including smart meter adder collected to December 31, 2009 to be comparable with the response to Board Staff IR# 2 (b).

See Appendix 4 for the Actual Smart Meter Cost Recovery – Residential Class model and Appendix 5 for the Actual Smart Meter Cost Recovery – GS <50 kW Class model.

A comparison of the results of PowerStream’s response to Board Staff Interrogatory 9 (b) (“Staff IR 9b”) to the results obtained in the response to Board Staff Interrogatory 2 (b) (“Staff IR 2b”) on the actual cost recovery disposition rate rider is set out in the table below.

**Table Staff 9-3: Smart Meter Actual Cost Disposition Rate Rider**

<b>Class</b>	<b>Per Staff IR 2b</b>	<b>Per Staff IR 9b</b>
Residential	\$ 0.38	\$ 0.69
GS <50 kW	\$ 0.38	\$ (1.73)
GS >50 kW	\$ 0.38	\$ -
Large Use	\$ 0.38	\$ -

## 10) Ref: Application p. 18 – Stranded Meter Costs

At the above reference, the Applicant states, "PowerStream is not seeking disposition of its stranded meter costs. PowerStream continues to recover these costs by including the net book value of stranded meters in its rate base for rate-making purposes, as recommended by the Board in its Decision with Reasons in the Combined Proceeding."

- a) Please confirm whether the stranded meter costs noted above refer to all of PowerStream's stranded costs since the initiation of its smart meter deployment program or just the stranded costs associated with the period that is the subject of this application.
- b) Please provide an explanation on why PowerStream is not seeking disposition of its stranded meter costs given the fact that the stranded meter assets which are currently included in PowerStream's rate base are not "used and useful" in the regulatory context.
- c) Please confirm whether or not PowerStream is currently tracking its stranded meter costs in the established sub-account as per the Board's guidance issued on January 16, 2007. If not, please explain.
- d) Please confirm if PowerStream is tracking and recording the depreciation for the stranded meter assets. If so, please identify the amounts as of December 31, 2009, and the accounts or sub-accounts under which they are being recorded.
- e) Please identify when PowerStream expects to seek final rate recovery approval of its stranded meter costs.

### **Response**

- a) PowerStream has not made any claim for recovery of any of its stranded meter costs resulting from smart meter implementation
- b) PowerStream is following the approach accepted by the Board in its Decision in the Combined Proceeding (EB-2007-0063) on page 16, paragraph 1, and is continuing to recover these costs through rates over their remaining amortization period.
- c) Yes, PowerStream has recorded its stranded meter cost in a sub-account of account 1555 as per the Board's guidance.
- d) PowerStream is continuing to "depreciate" the stranded meters by recording an amount equal to the depreciation expense in account 5695 and recording an offsetting credit to the stranded meter cost in account 1555. The Stranded



Meter cost amounts recorded as of December 31, 2009 are set out in the table below.

**Table Staff 10-1: Stranded Meter Costs December 31, 2009**

	<b>Amount</b>
Cost	\$ 21,737,228
Accumulated Depreciation	\$(11,847,171)
<b>Net Book Value</b>	<b>\$ 9,890,057</b>
2009 Amortization	\$ 867,150

- e) At the current time PowerStream plans to continue recovering the stranded meter cost as outlined in part b above.

## 11) Ref: Letters of Comment

- a) Following publication of the Notice of Application, did PowerStream receive any letters of comment?
- b) If so, please confirm whether a reply was sent from PowerStream to the author of the letter. If confirmed, please file that reply with the Board.
- c) If not confirmed, please explain why a response was not sent and confirm if PowerStream intends to respond.

### **Response**

- a) Yes. PowerStream received one email message and two letters of comment.
- b) PowerStream did not send a reply to the email or the two letters of comment.
- c) PowerStream did not feel that it was necessary to reply to any of the comments for the following reasons:
  - The comments, with the exception of the email, were addressed to the Ontario Energy Board and not PowerStream.
  - The letters contained personal comments and opinions regarding smart meters intended for the Board. None of the letters addressed PowerStream's Application or requested any information. PowerStream concluded that a reply was not necessary.
  - Addresses on the letters indicated that the writers do not reside in the PowerStream service territory and therefore are not affected by the Application. PowerStream forwarded copies of the letters to the utilities serving the addresses shown on the letters.

**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model**

**Rate Rider to Recover Actual Smart Meter Costs to December 31, 2009**

Revenue Requirement 2008	\$1,650,030
Revenue Requirement 2009	\$3,004,081
Revenue Requirement 2010 (to Oct 31/10)	\$2,430,763
<b>Revenue Requirement Total</b>	<b>\$7,084,874</b>
Smart Meter Rate Adder	(\$6,480,690)
Carrying Cost	(\$37,227)
<b>Smart Meter True-up</b>	<b>\$566,956</b>

Metered Customers 249,715

**Rate Rider to Recover Smart Meter Costs \$ 0.38**

Recovery period November 1, 2010 to April 30, 2011

**2010 Addition to Rate Base (Smart Meters installed in 2008 and 2009)**

Fixed Assets

Smart Meters	\$18,284,528
Computer Software	\$591,829
	<u>\$18,876,357</u>

Accumulated Depreciation

Smart Meters	(\$1,019,666)
Computer Software	(\$207,204)
	<u>(\$1,226,870)</u>

**Addition to Net Fixed Assets \$17,649,487**

2009 Amortization Expense

Smart Meters	\$814,575
Computer Software	\$152,921
	<u>\$967,496</u>

2010 Amortization Expense

Smart Meters	\$1,218,969
Computer Software	\$197,276
	<u>\$1,416,245</u>

**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model**

**Incremental Revenue Requirement Calculation**

		2008		2009		2010	Notes
Net Fixed Assets		\$ 3,109,524		\$ 11,934,267		\$ 16,941,365	1
OM&A	\$1,117,183		\$1,108,754		\$ -		
Working Capital Allowance	15%	\$ 167,577	15%	\$ 166,313	15%	\$ -	
Rate Base		\$ 3,277,101		\$ 12,100,580		\$ 16,941,365	
Deemed ST Debt	0%	\$ -	4%	\$ 484,023	4%	\$ 677,655	
Deemed LT Debt	60%	\$ 1,966,261	56%	\$ 6,776,325	56%	\$ 9,487,164	
Deemed Equity	40%	\$ 1,310,840	40%	\$ 4,840,232	40%	\$ 6,776,546	
ST Interest	0.00%	\$ -	1.33%	\$ 6,438	2.07%	\$ 14,027	
LT Interest	6.16%	\$ 121,122	5.89%	\$ 399,126	5.89%	\$ 558,794	
ROE	9.00%	\$ 117,976	8.01%	\$ 387,703	9.85%	\$ 667,490	
		\$ 239,097		\$ 793,266		\$ 1,240,311	
OM&A		\$ 1,117,183		\$ 1,108,754			2
Amortization		\$ 259,374		\$ 967,496		\$ 1,416,245	
Grossed-up PILs		\$ 34,376		\$ 134,565		\$ 260,359	
Revenue Requirement		\$ 1,650,030		\$ 3,004,081		\$ 2,916,915	

**NOTES**

1. Average assets for 2010 excludes 2010 additions as only considering meters installed up to Dec 31/09.
2. OM&A costs for meters installed in 2008 and 2009 only, costs for meters installed in 2010 are excluded and continue to be deferred in account 1556.
3. Actual costs up to Dec 31/07 were cleared in 2009 EDR and added to rate base (EB-2008-0244) and are excluded.

**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model**

**PILs Calculation**

	2008 Actual	2009 Actual	2010 Forecasted
<b>INCOME TAX</b>			
Net Income	\$ 117,976	\$ 387,703	\$ 667,490
Amortization	\$ 259,374	\$ 967,496	\$ 1,416,245
CCA	-\$ 335,676	-\$ 1,160,859	-\$ 1,531,012
Change in taxable income	\$ 41,674	\$ 194,339	\$ 552,723
Tax Rate	33.50%	33.00%	31.00%
Income Taxes Payable	\$ 13,961	\$ 64,132	\$ 171,344

**ONTARIO CAPITAL TAX**

Closing Net Fixed Assets	\$ 5,947,632	\$ 17,264,862	\$ 16,045,894
Less: Exemption	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ 5,947,632	\$ 17,264,862	\$ 16,045,894
Ontario Capital Tax Rate	0.225%	0.225%	0.075%
Net Amount (Taxable Capital x Rate)	\$ 13,382	\$ 38,846	\$ 12,034

**Gross Up**

	PILs Payable	PILs Payable	PILs Payable
Change in Income Taxes Payable	\$ 13,961	\$ 64,132	\$ 171,344
Change in OCT	\$ 13,382	\$ 38,846	\$ 12,034
PIL's	\$ 27,343	\$ 102,978	\$ 183,379

	Gross Up	Gross Up	Gross Up
	33.50%	33.00%	31.00%

	Grossed Up PILs	Grossed Up PILs	Grossed Up PILs
Change in Income Taxes Payable	\$ 20,993	\$ 95,719	\$ 248,325
Change in OCT	\$ 13,382	\$ 38,846	\$ 12,034
PIL's	\$ <b>34,376</b>	\$ <b>134,565</b>	\$ <b>260,359</b>

**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model**

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**Average Net Fixed Assets**

	2008 Actual	2009 Actual	2010 Forecasted
<b>Net Fixed Assets - meters</b>			
Opening Capital Investment	\$ -	\$ 6,152,723	\$ 18,284,528
Capital Investment	\$ 6,152,723	\$ 12,131,805	
Closing Capital Investment	\$ 6,152,723	\$ 18,284,528	\$ 18,284,528
Opening Accumulated Amortization	\$ -	\$ 205,091	\$ 1,019,666
Amortization Year One	\$ 205,091	\$ 404,394	\$ -
Amortization Thereafter	\$ -	\$ 410,182	\$ 1,218,969
Closing Accumulated Amortization	\$ 205,091	\$ 1,019,666	\$ 2,238,634
Opening Net Fixed Assets	\$ -	\$ 5,947,632	\$ 17,264,862
Closing Net Fixed Assets	\$ 5,947,632	\$ 17,264,862	\$ 16,045,894
Average Net Fixed Assets	\$ 2,973,816	\$ 11,606,247	\$ 16,655,378

	2008 Actual	2009 Actual	2010 Forecasted
<b>Net Fixed Assets - software</b>			
Opening Capital Investment	\$ -	\$ 325,698	\$ 591,829
Capital Investment	\$ 325,698	\$ 266,131	
Closing Capital Investment	\$ 325,698	\$ 591,829	\$ 591,829
Opening Accumulated Amortization	\$ -	\$ 54,283	\$ 207,204
Amortization Year One	\$ 54,283	\$ 44,355	\$ -
Amortization Thereafter	\$ -	\$ 108,566	\$ 197,276
Closing Accumulated Amortization	\$ 54,283	\$ 207,204	\$ 404,481
Opening Net Fixed Assets	\$ -	\$ 271,415	\$ 384,625
Closing Net Fixed Assets	\$ 271,415	\$ 384,625	\$ 187,349
Average Net Fixed Assets	\$ 135,708	\$ 328,020	\$ 285,987

**Totals**

Average Net Fixed Assets	\$ 3,109,524	\$ 11,934,267	\$ 16,941,365
Amorization Expense	\$ 259,374	\$ 967,496	\$ 1,416,245

**PowerStream Inc.  
Actual Smart Meter Cost Recovery Model  
For PILs Calculation**

**UCC**

	2008 Forecasted	2009 Forecasted	2010 Forecasted
Opening UCC	\$ -	\$ 5,906,614	\$ 17,080,618
Capital Additions	\$ 6,152,723	\$ 12,131,805	\$ -
UCC Before Half Year Rule	\$ 6,152,723	\$ 18,038,419	\$ 17,080,618
Half Year Rule (1/2 Additions - Disposals)	\$ 3,076,362	\$ 6,065,903	\$ -
Reduced UCC	\$ 3,076,362	\$ 11,972,517	\$ 17,080,618
CCA Rate Class	47		
CCA Rate	8%		
CCA	\$ 246,109	\$ 957,801	\$ 1,366,449
Closing UCC	\$ 5,906,614	\$ 17,080,618	\$ 15,714,168

**UCC**

	2008 Forecasted	2009 Forecasted	2010 Forecasted
Opening UCC	\$ -	\$ 236,131	\$ 299,204
Capital Additions	\$ 325,698	\$ 266,131	\$ -
UCC Before Half Year Rule	\$ 325,698	\$ 502,262	\$ 299,204
Half Year Rule (1/2 Additions - Disposals)	\$ 162,849	\$ 133,066	\$ -
Reduced UCC	\$ 162,849	\$ 369,197	\$ 299,204
CCA Rate Class	50		
CCA Rate	55%		
CCA	\$ 89,567	\$ 203,058	\$ 164,562
Closing UCC	\$ 236,131	\$ 299,204	\$ 134,642
Total CCA	\$ 335,676	\$ 1,160,859	\$ 1,531,012

**PowerStream Inc.**

**Actual Smart Meter Cost Recovery Model**

**Table Staff 16-1: Account 1555 Smart Meter  
Capital and Offset Account – Principal**

<b>Month</b>	<b>Opening Balance</b>	<b>SM Adder</b>	<b>Revenue Requirement</b>	<b>Closing Balance (excluding Stranded)</b>
Jan-08	0	(171,541)	137,502	(34,039)
Feb-08	(34,039)	(171,988)	137,502	(68,525)
Mar-08	(68,525)	(172,216)	137,502	(103,238)
Apr-08	(103,238)	(172,624)	137,502	(138,360)
May-08	(138,360)	(290,895)	137,502	(291,752)
Jun-08	(291,752)	(291,611)	137,502	(445,860)
Jul-08	(445,860)	(292,477)	137,502	(600,835)
Aug-08	(600,835)	(293,316)	137,502	(756,648)
Sep-08	(756,648)	(294,296)	137,502	(913,442)
Oct-08	(913,442)	(295,479)	137,502	(1,071,419)
Nov-08	(1,071,419)	(296,584)	137,502	(1,230,500)
Dec-08	(1,230,500)	(297,494)	137,502	(1,390,492)
Jan-09	(1,390,492)	(298,286)	250,340	(1,438,438)
Feb-09	(1,438,438)	(298,794)	250,340	(1,486,892)
Mar-09	(1,486,892)	(299,260)	250,340	(1,535,812)
Apr-09	(1,535,812)	(299,609)	250,340	(1,585,081)
May-09	(1,585,081)	(299,982)	250,340	(1,634,723)
Jun-09	(1,634,723)	(300,368)	250,340	(1,684,751)
Jul-09	(1,684,751)	(300,826)	250,340	(1,735,236)
Aug-09	(1,735,236)	(301,398)	250,340	(1,786,294)
Sep-09	(1,786,294)	(259,493)	250,340	(1,795,447)
Oct-09	(1,795,447)	(260,120)	250,340	(1,805,227)
Nov-09	(1,805,227)	(260,768)	250,340	(1,815,655)
Dec-09	(1,815,655)	(261,265)	250,340	(1,826,580)
Jan-10	(1,826,580)		243,076	(1,583,503)
Feb-10	(1,583,503)		243,076	(1,340,427)
Mar-10	(1,340,427)		243,076	(1,097,351)
Apr-10	(1,097,351)		243,076	(854,275)
May-10	(854,275)		243,076	(611,198)
Jun-10	(611,198)		243,076	(368,122)
Jul-10	(368,122)		243,076	(125,046)
Aug-10	(125,046)		243,076	118,031
Sep-10	118,031		243,076	361,107
Oct-10	361,107		243,076	604,183
<b>Total</b>		<b>(6,480,690)</b>	<b>7,084,874</b>	<b>604,183</b>

2008	(3,040,521)	1,650,030
2009	(3,440,169)	3,004,081
2010	0	2,430,763
	<u>(6,480,690)</u>	<u>7,084,874</u>



**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model**

**Table Staff 16-2: Account 1555 – Interest**

Month	Opening Balance (excluding Stranded)	Days	Rate	Interest	To Date
Jan-08	0	31	5.14%	0	0
Feb-08	(34,039)	28	5.14%	(134)	(134)
Mar-08	(68,525)	31	5.14%	(299)	(433)
Apr-08	(103,238)	30	4.08%	(346)	(780)
May-08	(138,360)	31	4.08%	(479)	(1,259)
Jun-08	(291,752)	30	4.08%	(978)	(2,237)
Jul-08	(445,860)	31	3.35%	(1,269)	(3,506)
Aug-08	(600,835)	31	3.35%	(1,709)	(5,215)
Sep-08	(756,648)	30	3.35%	(2,083)	(7,299)
Oct-08	(913,442)	31	3.35%	(2,599)	(9,898)
Nov-08	(1,071,419)	30	3.35%	(2,950)	(12,848)
Dec-08	(1,230,500)	31	3.35%	(3,501)	(16,349)
Jan-09	(1,390,492)	31	2.4500%	(2,893)	(19,242)
Feb-09	(1,438,438)	28	2.4500%	(2,703)	(21,946)
Mar-09	(1,486,892)	31	2.4500%	(3,094)	(25,040)
Apr-09	(1,535,812)	30	1.0000%	(1,262)	(26,302)
May-09	(1,585,081)	31	1.0000%	(1,346)	(27,648)
Jun-09	(1,634,723)	30	1.0000%	(1,344)	(28,992)
Jul-09	(1,684,751)	31	0.5500%	(787)	(29,779)
Aug-09	(1,735,236)	31	0.5500%	(811)	(30,589)
Sep-09	(1,786,294)	30	0.5500%	(808)	(31,397)
Oct-09	(1,795,447)	31	0.5500%	(839)	(32,236)
Nov-09	(1,805,227)	30	0.5500%	(816)	(33,052)
Dec-09	(1,815,655)	31	0.5500%	(848)	(33,900)
Jan-10	(1,826,580)	31	0.5500%	(853)	(34,753)
Feb-10	(1,583,503)	28	0.5500%	(668)	(35,421)
Mar-10	(1,340,427)	31	0.5500%	(626)	(36,047)
Apr-10	(1,097,351)	30	0.5500%	(496)	(36,543)
May-10	(854,275)	31	0.5500%	(399)	(36,942)
Jun-10	(611,198)	30	0.5500%	(276)	(37,219)
Jul-10	(368,122)	31	0.5500%	(172)	(37,391)
Aug-10	(125,046)	31	0.5500%	(58)	(37,449)
Sep-10	118,031	30	0.5500%	53	(37,396)
Oct-10	361,107	31	0.5500%	169	(37,227)

**PowerStream Inc.**

**Sheet 2. Smart Meter Capital Cost and Operational Expense**

Smart Meter Unit Installation Plan: <i>assume calendar year installation</i>	Actual		
	2008	2009	Total
Planned number of Residential smart meters to be installed - includes new services	53,262	81,481	134,743
Planned number of General Service Less Than 50 kW smart meters - includes new services		2,613	2,613
Planned number of General Service Greater Than 50 kW smart meters - includes new services	-	-	-
<b>Planned Meter Installation</b>	<b>53,262</b>	<b>84,094</b>	<b>137,356</b>
<b>Capital Costs</b>	<b>Actual Costs</b>		
	2008	2009	Total
<b>1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>			
<b>1.1.1 Smart Meter</b>	\$ 4,341,661	\$ 9,377,272	\$ 13,718,933
<i>may include new meters and modules, etc.</i>			
<b>1.1.2 Installation Cost</b>	\$ 1,039,362	\$ 1,744,481	\$ 2,783,843
<i>may include socket kits plus shipping, labour, benefits, vehicle, etc.</i>			
<b>1.1.3a Workforce Automation Hardware</b>		\$ 43,903	\$ 43,903
<i>may include fieldworker handhelds, barcode hardware, etc.</i>			
<b>1.1.3b Workforce Automation Software</b>		\$ 9,735	\$ 9,735
<i>may include fieldworker handhelds, barcode hardware, etc.</i>			
<b>Total Advanced Metering Communication Device (AMCD)</b>	<b>\$ 5,381,023</b>	<b>\$ 11,175,391</b>	<b>\$ 16,556,414</b>
	101.03	132.89	120.54
<b>1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>			
<b>1.2.1 Collectors</b>	\$ 395,634		\$ 395,634
<b>1.2.2 Repeaters</b>			
<i>may include radio licence, etc.</i>			
<b>1.2.3 Installation</b>			
<i>may include meter seals and rings, collector computer hardware, etc.</i>			
<b>Total Advanced Metering Regional Collector (AMRC) (includes LAN)</b>	<b>\$ 395,634</b>	<b>\$ -</b>	<b>\$ 395,634</b>
<b>1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>			
<b>1.3.1 Computer Hardware</b>	\$ 18,623	\$ 6,779	\$ 25,402
<b>1.3.2 Computer Software</b>			
<b>1.3.3 Computer Software Licence &amp; Installation (includes hardware &amp; software)</b>		\$ 13,436	\$ 13,436
<i>may include AS/400 disc space, backup &amp; recovery computer, UPS, etc</i>			
<b>Total Advanced Metering Control Computer (AMCC)</b>	<b>\$ 18,623</b>	<b>\$ 20,215</b>	<b>\$ 38,838</b>
<b>1.4 WIDE AREA NETWORK (WAN)</b>			
<b>1.4.1 Activation Fees</b>			
<b>Total Wide Area Network (WAN)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY</b>			
<b>1.5.1 Customer equipment (including repair of damaged equipment)</b>			
<b>1.5.2 AMI Interface to CIS</b>	\$ 325,698	\$ 266,131	\$ 591,829
<b>1.5.3 Professional Fees</b>	\$ 152,152	\$ 462,936	\$ 615,088
<b>1.5.4 Integration</b>	\$ 80,000	\$ 105,385	\$ 185,385
<b>1.5.5 Program Management</b>	\$ 128,581	\$ 105,385	\$ 233,966
<b>1.5.6 Other AMI Capital</b>		\$ 259,203	\$ 259,203
<b>Total Other AMI Capital Costs Related To Minimum Functionality</b>	<b>\$ 686,431</b>	<b>\$ 1,199,040</b>	<b>\$ 1,885,471</b>
<b>Total Capital Costs</b>	<b>\$ 6,481,711</b>	<b>\$ 12,394,646</b>	<b>\$ 18,876,357</b>

**Sheet 2. Smart Meter Capital Cost and Operational Expenses**

<b>O M &amp; A</b>				
		<b>Actual Costs</b>		
		2008	2009	Total
<b>2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)</b>				
<b>2.1.1 Maintenance</b>				
	<i>may include meter reverification costs, etc.</i>			
<b>Total Incremental AMI Operation Expenses</b>		\$ -	\$ 73,935	\$ 73,935
<b>2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)</b>				
<b>2.2.1 Maintenance</b>				
				\$ -
<b>Total Advanced Metering Regional Collector (AMRC) (includes LAN)</b>		\$ -	\$ -	\$ -
<b>2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)</b>				
<b>2.3.1 Hardware Maintenance</b>				
	<i>may include server support, etc</i>			
<b>2.3.2 Software Maintenance</b>				
	<i>may include maintenance support, etc.</i>			
<b>Total Advanced Metering Control Computer (AMCC)</b>		\$ -	\$ -	\$ -
<b>2.4 WIDE AREA NETWORK (WAN)</b>				
<b>2.4.1 WIDE AREA NETWORK (WAN)</b>				
	<i>may include serial to Ethernet hardware, etc.</i>	\$ 222,646	\$ 314,134	\$ 536,780
<b>Total Incremental Other Operation Expenses</b>		\$ 222,646	\$ 314,134	\$ 536,780
<b>2.5 OTHER AMI OM&amp;A COSTS RELATED TO MINIMUM FUNCTIONALITY</b>				
<b>2.5.1 Business Process Redesign</b>		\$ 51,726		\$ 51,726
<b>2.5.2 Customer Communication</b>		\$ 106,926	\$ 246,352	\$ 353,278
	<i>may include project communication, etc.</i>			
<b>2.5.3 Program Management</b>				\$ -
<b>2.5.4 Change Management</b>				\$ -
	<i>may include training, etc.</i>			
<b>2.5.5 Administration Cost</b>		\$ 59,533	\$ 85,943	\$ 145,476
<b>2.5.6 Other AMI Expenses</b>		\$ 676,352	\$ 388,390	\$ 1,064,742
<b>Total 2.5 Other AMI OM&amp;A Costs Related To Minimum Functionality</b>		\$ 894,537	\$ 720,685	\$ 1,615,222
<b>Total O M &amp; A Costs</b>		\$ 1,117,183	\$ 1,108,754	\$ 2,225,937

**PowerStream South  
Smart Meter Funding Adder Collected by Rate Class - Staff IR #9**

Year - Month	Residential	GS<50	GS>50	Large Use	Total
2006 - Apr					
2006 - May					
2006 - Jun					
2006 - Jul					
2006 - Aug					
2006 - Sep					
2006 - Oct					
2006 - Nov					
2006 - Dec	(417,199)	(46,291)	(7,424)	(12)	(470,927)
<b>2006 - Total</b>	<b>(417,199)</b>	<b>(46,291)</b>	<b>(7,424)</b>	<b>(12)</b>	<b>(470,927)</b>
2007 - Jan	amounts included in February				
2007 - Feb	(106,031)	(11,841)	(2,017)	(2)	(119,891)
2007 - Mar	(56,241)	(6,010)	(954)	(1)	(63,205)
2007 - Apr	(52,881)	(5,963)	(952)	(1)	(59,797)
2007 - May	(135,429)	(15,001)	(2,181)	(2)	(152,613)
2007 - Jun	(143,085)	(16,151)	(2,593)	(2)	(161,831)
2007 - Jul	(154,196)	(16,644)	(2,634)	(2)	(173,477)
2007 - Aug	(146,874)	(18,125)	(2,806)	(2)	(167,808)
2007 - Sep	(140,683)	(13,615)	(2,356)	(2)	(156,656)
2007 - Oct	(167,458)	(18,527)	(2,844)	(2)	(188,831)
2007 - Nov	(103,547)	(13,934)	(2,272)	(2)	(119,756)
2007 - Dec	(148,441)	(15,689)	(2,627)	(2)	(166,759)
<b>2007 - Total</b>	<b>(1,354,867)</b>	<b>(151,499)</b>	<b>(24,235)</b>	<b>(22)</b>	<b>(1,530,624)</b>
2008 - Jan	(248,094)	(21,486)	(3,189)	0	(272,769)
2008 - Feb	(104,731)	(14,438)	(2,697)	(4)	(121,871)
2008 - Mar	(152,619)	(16,864)	(2,693)	(2)	(172,177)
2008 - Apr	(154,623)	(17,014)	(2,836)	(2)	(174,475)
2008 - May	(244,333)	(26,123)	(4,090)	(4)	(274,550)
2008 - Jun	(242,871)	(27,136)	(4,450)	(4)	(274,461)
2008 - Jul	(258,523)	(28,262)	(4,741)	(4)	(291,530)
2008 - Aug	(255,783)	(27,916)	(4,486)	(4)	(288,188)
2008 - Sep	(251,416)	(26,669)	(4,294)	(4)	(282,383)
2008 - Oct	(271,001)	(30,333)	(5,092)	(4)	(306,430)
2008 - Nov	(252,466)	(27,530)	(4,634)	(4)	(284,634)
2008 - Dec	(264,339)	(28,667)	(4,694)	(4)	(297,703)
<b>2008 - Total</b>	<b>(2,700,799)</b>	<b>(292,438)</b>	<b>(47,895)</b>	<b>(38)</b>	<b>(3,041,171)</b>
2009 - Jan	(266,973)	(29,046)	(4,963)	(4)	(300,986)
2009 - Feb	(241,643)	(26,136)	(4,404)	(3)	(272,187)
2009 - Mar	(269,672)	(28,350)	(4,731)	(4)	(302,755)
2009 - Apr	(249,917)	(27,753)	(4,372)	(4)	(282,045)
2009 - May	(266,216)	(28,897)	(4,678)	(4)	(299,794)
2009 - Jun	(308,367)	(32,584)	(5,928)	(1)	(346,880)
2009 - Jul	(267,198)	(28,972)	(4,654)	(1)	(300,824)
2009 - Aug	(267,887)	(29,169)	(4,678)	(1)	(301,735)
2009 - Sep	(225,039)	(24,398)	(3,866)	(1)	(253,303)
2009 - Oct	(232,526)	(24,977)	(4,023)	(1)	(261,528)
2009 - Nov	(225,757)	(24,636)	(3,872)	(1)	(254,266)
2009 - Dec	(234,549)	(25,191)	(4,069)	(1)	(263,810)
<b>2009 - Total</b>	<b>(3,055,741)</b>	<b>(330,109)</b>	<b>(54,238)</b>	<b>(26)</b>	<b>(3,440,114)</b>
2010 - Jan	(233,297)	(25,296)	(4,010)	(1)	(262,604)
2010 - Feb	(212,622)	(22,918)	(3,661)	(1)	(239,202)
2010 - Mar	(234,929)	(25,622)	(3,903)	(1)	(264,455)
2010 - Apr	(227,899)	(24,811)	(3,747)	(1)	(256,458)
<b>2010 - Total</b>	<b>(908,747)</b>	<b>(98,647)</b>	<b>(15,321)</b>	<b>(4)</b>	<b>(1,022,719)</b>
<b>Grand Total</b>	<b>(8,437,354)</b>	<b>(918,984)</b>	<b>(149,114)</b>	<b>(102)</b>	<b>(9,505,553)</b>

Note: PowerStream's billing system did not split out the Smart Meter funding adder in 2006.

At December 31, 2006, the SM funding adder amounts billed in 2006 were recorded in rate class specific sub-accounts of 1555.

**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model - Residential Class**

**Rate Rider to Recover Actual Smart Meter Costs to December 31, 2009**

Revenue Requirement 2008	\$1,648,353
Revenue Requirement 2009	\$2,846,094
Revenue Requirement 2010 (to Oct 31/10)	\$2,205,187
<b>Revenue Requirement Total</b>	<b>\$6,699,634</b>
Smart Meter Rate Adder	(\$5,756,543)
Carrying Cost	(\$26,772)
<b>Smart Meter True-up</b>	<b>\$916,320</b>

Residential Customers 219,943

**Rate Rider to Recover Smart Meter Costs \$ 0.69**

Recovery period November 1, 2010 to April 30, 2011

**2010 Addition to Rate Base (Smart Meters installed in 2008 and 2009)**

Fixed Assets

Smart Meters	\$16,481,836
Computer Software	\$580,570
	<u>\$17,062,406</u>

Accumulated Depreciation

Smart Meters	(\$959,795)
Computer Software	(\$203,262)
	<u>(\$1,163,058)</u>

**Addition to Net Fixed Assets \$15,899,348**

2009 Amortization Expense

Smart Meters	\$754,595
Computer Software	\$150,012
	<u>\$904,607</u>

2010 Amortization Expense

Smart Meters	\$1,098,789
Computer Software	\$193,523
	<u>\$1,292,312</u>

**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model - Residential Class**

**Incremental Revenue Requirement Calculation**

		2008		2009		2010	Notes
Net Fixed Assets		\$ 3,108,532		\$ 11,058,206		\$ 15,253,192	1
OM&A	\$1,116,199		\$1,082,767		\$ -		
Working Capital Allowance	15%	\$ 167,430	15%	\$ 162,415	15%	\$ -	
Rate Base		\$ 3,275,962		\$ 11,220,621		\$ 15,253,192	
Deemed ST Debt	0%	\$ -	4%	\$ 448,825	4%	\$ 610,128	
Deemed LT Debt	60%	\$ 1,965,577	56%	\$ 6,283,548	56%	\$ 8,541,788	
Deemed Equity	40%	\$ 1,310,385	40%	\$ 4,488,249	40%	\$ 6,101,277	
ST Interest	0.00%	\$ -	1.33%	\$ 5,969	2.07%	\$ 12,630	
LT Interest	6.16%	\$ 121,080	5.89%	\$ 370,101	5.89%	\$ 503,111	
ROE	9.00%	\$ 117,935	8.01%	\$ 359,509	9.85%	\$ 600,976	
		\$ 239,014		\$ 735,579		\$ 1,116,717	
OM&A		\$ 1,116,199		\$ 1,082,767			2
Amortization		\$ 258,451		\$ 904,607		\$ 1,292,312	
Grossed-up PILs		\$ 34,689		\$ 123,141		\$ 237,196	
Revenue Requirement		\$ 1,648,353		\$ 2,846,094		\$ 2,646,225	

**NOTES**

1. Average assets for 2010 excludes 2010 additions as only considering meters installed up to Dec 31/09.
2. OM&A costs for meters installed in 2008 and 2009 only, costs for meters installed in 2010 are excluded and continue to be deferred in account 1556.
3. Actual costs up to Dec 31/07 were cleared in 2009 EDR and added to rate base (EB-2008-0244) and are excluded.

**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model - Residential Class**

**PILs Calculation**

	2008 Actual	2009 Actual	2010 Forecasted
<b>INCOME TAX</b>			
Net Income	\$ 117,935	\$ 359,509	\$ 600,976
Amortization	\$ 258,451	\$ 904,607	\$ 1,292,312
CCA	-\$ 334,104	-\$ 1,085,010	-\$ 1,389,414
Change in taxable income	\$ 42,282	\$ 179,106	\$ 503,874
Tax Rate	33.50%	33.00%	31.00%
Income Taxes Payable	\$ 14,164	\$ 59,105	\$ 156,201

**ONTARIO CAPITAL TAX**

Closing Net Fixed Assets	\$ 5,950,813	\$ 15,522,041	\$ 14,423,252
Less: Exemption	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ 5,950,813	\$ 15,522,041	\$ 14,423,252
Ontario Capital Tax Rate	0.225%	0.225%	0.075%
Net Amount (Taxable Capital x Rate)	\$ 13,389	\$ 34,925	\$ 10,817

**Gross Up**

	PILs Payable	PILs Payable	PILs Payable
Change in Income Taxes Payable	\$ 14,164	\$ 59,105	\$ 156,201
Change in OCT	\$ 13,389	\$ 34,925	\$ 10,817
PIL's	\$ 27,554	\$ 94,030	\$ 167,018

	Gross Up	Gross Up	Gross Up
	33.50%	33.00%	31.00%

	Grossed Up PILs	Grossed Up PILs	Grossed Up PILs
Change in Income Taxes Payable	\$ 21,300	\$ 88,216	\$ 226,378
Change in OCT	\$ 13,389	\$ 34,925	\$ 10,817
PIL's	\$ <b>34,689</b>	\$ <b>123,141</b>	\$ <b>237,196</b>

**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model - Residential Class**

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**Average Net Fixed Assets**

	2008 Actual	2009 Actual	2010 Forecasted
<b>Net Fixed Assets - meters</b>			
Opening Capital Investment	\$ -	\$ 6,156,013	\$ 16,481,836
Capital Investment	\$ 6,156,013	\$ 10,325,823	
Closing Capital Investment	\$ 6,156,013	\$ 16,481,836	\$ 16,481,836
Opening Accumulated Amortization	\$ -	\$ 205,200	\$ 959,795
Amortization Year One	15 years \$ 205,200	\$ 344,194	\$ -
Amortization Thereafter	\$ -	\$ 410,401	\$ 1,098,789
Closing Accumulated Amortization	\$ 205,200	\$ 959,795	\$ 2,058,584
Opening Net Fixed Assets	\$ -	\$ 5,950,813	\$ 15,522,041
Closing Net Fixed Assets	\$ 5,950,813	\$ 15,522,041	\$ 14,423,252
Average Net Fixed Assets	\$ 2,975,406	\$ 10,736,427	\$ 14,972,646

	2008 Actual	2009 Actual	2010 Forecasted
<b>Net Fixed Assets - software</b>			
Opening Capital Investment	\$ -	\$ 319,502	\$ 580,570
Capital Investment	\$ 319,502	\$ 261,068	
Closing Capital Investment	\$ 319,502	\$ 580,570	\$ 580,570
Opening Accumulated Amortization	\$ -	\$ 53,250	\$ 203,262
Amortization Year One	3 years \$ 53,250	\$ 43,511	\$ -
Amortization Thereafter	\$ -	\$ 106,501	\$ 193,523
Closing Accumulated Amortization	\$ 53,250	\$ 203,262	\$ 396,786
Opening Net Fixed Assets	\$ -	\$ 266,252	\$ 377,308
Closing Net Fixed Assets	\$ 266,252	\$ 377,308	\$ 183,784
Average Net Fixed Assets	\$ 133,126	\$ 321,780	\$ 280,546

**Totals**

Average Net Fixed Assets	\$ 3,108,532	\$ 11,058,206	\$ 15,253,192
Amorization Expense	\$ 258,451	\$ 904,607	\$ 1,292,312
Capital Investment	\$ 6,475,515	\$ 10,586,891	\$ -



**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model - Residential Class**  
**For PILs Calculation**

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**UCC**

	2008 Forecasted	2009 Forecasted	2010 Forecasted
Opening UCC	\$ -	\$ 5,909,772	\$ 15,349,781
Capital Additions	\$ 6,156,013	\$ 10,325,823	\$ -
UCC Before Half Year Rule	\$ 6,156,013	\$ 16,235,595	\$ 15,349,781
Half Year Rule (1/2 Additions - Disposals)	\$ 3,078,007	\$ 5,162,912	\$ -
Reduced UCC	\$ 3,078,007	\$ 11,072,684	\$ 15,349,781
CCA Rate Class	47		
CCA Rate	8%		
CCA	\$ 246,241	\$ 885,815	\$ 1,227,982
Closing UCC	\$ 5,909,772	\$ 15,349,781	\$ 14,121,798

**UCC**

	2008 Forecasted	2009 Forecasted	2010 Forecasted
Opening UCC	\$ -	\$ 231,639	\$ 293,512
Capital Additions	\$ 319,502	\$ 261,068	\$ -
UCC Before Half Year Rule	\$ 319,502	\$ 492,707	\$ 293,512
Half Year Rule (1/2 Additions - Disposals)	\$ 159,751	\$ 130,534	\$ -
Reduced UCC	\$ 159,751	\$ 362,173	\$ 293,512
CCA Rate Class	50		
CCA Rate	55%		
CCA	\$ 87,863	\$ 199,195	\$ 161,432
Closing UCC	\$ 231,639	\$ 293,512	\$ 132,080
 Total CCA	 \$ 334,104	 \$ 1,085,010	 \$ 1,389,414

**PowerStream Inc.**

**Actual Smart Meter Cost Recovery Model - Residential Class**

**Table Staff 16-1: Account 1555 Smart Meter  
 Capital and Offset Account – Principal**

Month	Opening Balance	SM Adder	Revenue Requirement	Closing Balance (excluding Stranded)
Jan-08	0	(248,094)	137,363	(110,731)
Feb-08	(110,731)	(104,731)	137,363	(78,099)
Mar-08	(78,099)	(152,619)	137,363	(93,356)
Apr-08	(93,356)	(154,623)	137,363	(110,616)
May-08	(110,616)	(244,333)	137,363	(217,586)
Jun-08	(217,586)	(242,871)	137,363	(323,094)
Jul-08	(323,094)	(258,523)	137,363	(444,255)
Aug-08	(444,255)	(255,783)	137,363	(562,675)
Sep-08	(562,675)	(251,416)	137,363	(676,728)
Oct-08	(676,728)	(271,001)	137,363	(810,366)
Nov-08	(810,366)	(252,466)	137,363	(925,470)
Dec-08	(925,470)	(264,339)	137,363	(1,052,446)
Jan-09	(1,052,446)	(266,973)	237,174	(1,082,244)
Feb-09	(1,082,244)	(241,643)	237,174	(1,086,713)
Mar-09	(1,086,713)	(269,672)	237,174	(1,119,210)
Apr-09	(1,119,210)	(249,917)	237,174	(1,131,953)
May-09	(1,131,953)	(266,216)	237,174	(1,160,994)
Jun-09	(1,160,994)	(308,367)	237,174	(1,232,187)
Jul-09	(1,232,187)	(267,198)	237,174	(1,262,210)
Aug-09	(1,262,210)	(267,887)	237,174	(1,292,923)
Sep-09	(1,292,923)	(225,039)	237,174	(1,280,787)
Oct-09	(1,280,787)	(232,526)	237,174	(1,276,139)
Nov-09	(1,276,139)	(225,757)	237,174	(1,264,721)
Dec-09	(1,264,721)	(234,549)	237,174	(1,262,096)
Jan-10	(1,262,096)		220,519	(1,041,577)
Feb-10	(1,041,577)		220,519	(821,058)
Mar-10	(821,058)		220,519	(600,540)
Apr-10	(600,540)		220,519	(380,021)
May-10	(380,021)		220,519	(159,502)
Jun-10	(159,502)		220,519	61,016
Jul-10	61,016		220,519	281,535
Aug-10	281,535		220,519	502,054
Sep-10	502,054		220,519	722,573
Oct-10	722,573		220,519	943,091
<b>Total</b>		<b>(5,756,543)</b>	<b>6,699,634</b>	<b>943,091</b>

2008	(2,700,799)	1,648,353
2009	(3,055,744)	2,846,094
2010	0	2,205,187
	<u>(5,756,543)</u>	<u>6,699,634</u>

**PowerStream Inc.**

**Actual Smart Meter Cost Recovery Model - Residential Class**

**Table Staff 16-2: Account 1555 – Interest**

Month	Opening Balance (excluding Stranded)	Days	Rate	Interest	To Date
Jan-08	0	31	5.14%	0	0
Feb-08	(110,731)	28	5.14%	(437)	(437)
Mar-08	(78,099)	31	5.14%	(341)	(778)
Apr-08	(93,356)	30	4.08%	(313)	(1,091)
May-08	(110,616)	31	4.08%	(383)	(1,474)
Jun-08	(217,586)	30	4.08%	(730)	(2,204)
Jul-08	(323,094)	31	3.35%	(919)	(3,123)
Aug-08	(444,255)	31	3.35%	(1,264)	(4,387)
Sep-08	(562,675)	30	3.35%	(1,549)	(5,936)
Oct-08	(676,728)	31	3.35%	(1,925)	(7,862)
Nov-08	(810,366)	30	3.35%	(2,231)	(10,093)
Dec-08	(925,470)	31	3.35%	(2,633)	(12,726)
Jan-09	(1,052,446)	31	2.4500%	(2,190)	(14,916)
Feb-09	(1,082,244)	28	2.4500%	(2,034)	(16,950)
Mar-09	(1,086,713)	31	2.4500%	(2,261)	(19,211)
Apr-09	(1,119,210)	30	1.0000%	(920)	(20,131)
May-09	(1,131,953)	31	1.0000%	(961)	(21,093)
Jun-09	(1,160,994)	30	1.0000%	(954)	(22,047)
Jul-09	(1,232,187)	31	0.5500%	(576)	(22,622)
Aug-09	(1,262,210)	31	0.5500%	(590)	(23,212)
Sep-09	(1,292,923)	30	0.5500%	(584)	(23,796)
Oct-09	(1,280,787)	31	0.5500%	(598)	(24,395)
Nov-09	(1,276,139)	30	0.5500%	(577)	(24,972)
Dec-09	(1,264,721)	31	0.5500%	(591)	(25,562)
Jan-10	(1,262,096)	31	0.5500%	(590)	(26,152)
Feb-10	(1,041,577)	28	0.5500%	(439)	(26,591)
Mar-10	(821,058)	31	0.5500%	(384)	(26,975)
Apr-10	(600,540)	30	0.5500%	(271)	(27,246)
May-10	(380,021)	31	0.5500%	(178)	(27,424)
Jun-10	(159,502)	30	0.5500%	(72)	(27,496)
Jul-10	61,016	31	0.5500%	29	(27,468)
Aug-10	281,535	31	0.5500%	132	(27,336)
Sep-10	502,054	30	0.5500%	227	(27,109)
Oct-10	722,573	31	0.5500%	338	(26,772)

**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model - GS < 50 kW Class**

**Rate Rider to Recover Actual Smart Meter Costs to December 31, 2009**

Revenue Requirement 2008	\$1,927
Revenue Requirement 2009	\$158,211
Revenue Requirement 2010 (to Oct 31/10)	\$225,566
<b>Revenue Requirement Total</b>	<b>\$385,705</b>
Smart Meter Rate Adder	(\$622,547)
Carrying Cost	(\$9,741)
<b>Smart Meter True-up</b>	<b>(\$246,583)</b>

Residential Customers 23,818

**Rate Rider to Recover Smart Meter Costs (1.73)**

Recovery period November 1, 2010 to April 30, 2011

**2010 Addition to Rate Base (Smart Meters installed in 2008 and 2009)**

Fixed Assets

Smart Meters	\$1,802,692
Computer Software	\$11,259
	<u>\$1,813,951</u>

Accumulated Depreciation

Smart Meters	(\$60,090)
Computer Software	(\$3,942)
	<u>(\$64,032)</u>

**Addition to Net Fixed Assets \$1,749,919**

2009 Amortization Expense

Smart Meters	\$60,090
Computer Software	\$2,909
	<u>\$62,999</u>

2010 Amortization Expense

Smart Meters	\$120,179
Computer Software	\$3,753
	<u>\$123,932</u>

**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model - GS < 50 kW Class**

**Incremental Revenue Requirement Calculation**

	2008		2009		2010		Notes
Net Fixed Assets		\$ 2,582		\$ 877,541		\$ 1,687,953	1
OM&A	\$ 984		\$ 25,987		\$ -		
Working Capital Allowance	15%	\$ 148	15%	\$ 3,898	15%	\$ -	
Rate Base		\$ 2,729		\$ 881,439		\$ 1,687,953	
Deemed ST Debt	0%	\$ -	4%	\$ 35,258	4%	\$ 67,518	
Deemed LT Debt	60%	\$ 1,638	56%	\$ 493,606	56%	\$ 945,254	
Deemed Equity	40%	\$ 1,092	40%	\$ 352,576	40%	\$ 675,181	
ST Interest	0.00%	\$ -	1.33%	\$ 469	2.07%	\$ 1,398	
LT Interest	6.16%	\$ 101	5.89%	\$ 29,073	5.89%	\$ 55,675	
ROE	9.00%	\$ 98	8.01%	\$ 28,241	9.85%	\$ 66,505	
		\$ 199		\$ 57,784		\$ 123,578	
OM&A		\$ 984		\$ 25,987			2
Amortization		\$ 1,033		\$ 62,999		\$ 123,932	
Grossed-up PILs		-\$ 289		\$ 11,442		\$ 23,169	
Revenue Requirement		\$ 1,927		\$ 158,211		\$ 270,679	

**NOTES**

1. Average assets for 2010 excludes 2010 additions as only considering meters installed up to Dec 31/09.
2. OM&A costs for meters installed in 2008 and 2009 only, costs for meters installed in 2010 are excluded and continue to be deferred in account 1556.
3. Actual costs up to Dec 31/07 were cleared in 2009 EDR and added to rate base (EB-2008-0244) and are excluded.

**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model - GS < 50 kW Class**

**PILs Calculation**

	2008 Actual	2009 Actual	2010 Forecasted
<b>INCOME TAX</b>			
Net Income	\$ 98	\$ 28,241	\$ 66,505
Amortization	\$ 1,033	\$ 62,999	\$ 123,932
CCA	-\$ 1,704	-\$ 75,971	-\$ 141,577
Change in taxable income	-\$ 573	\$ 15,270	\$ 48,860
Tax Rate	33.50%	33.00%	31.00%
Income Taxes Payable	-\$ 192	\$ 5,039	\$ 15,147

**ONTARIO CAPITAL TAX**

Closing Net Fixed Assets	\$ -	\$ 1,742,602	\$ 1,622,423
Less: Exemption	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ 1,742,602	\$ 1,622,423
Ontario Capital Tax Rate	0.225%	0.225%	0.075%
Net Amount (Taxable Capital x Rate)	\$ -	\$ 3,921	\$ 1,217

**Gross Up**

	PILs Payable	PILs Payable	PILs Payable
Change in Income Taxes Payable	-\$ 192	\$ 5,039	\$ 15,147
Change in OCT	\$ -	\$ 3,921	\$ 1,217
PIL's	-\$ 192	\$ 8,960	\$ 16,364

Gross Up	Gross Up	Gross Up
33.50%	33.00%	31.00%

	Grossed Up PILs	Grossed Up PILs	Grossed Up PILs
Change in Income Taxes Payable	-\$ 289	\$ 7,521	\$ 21,952
Change in OCT	\$ -	\$ 3,921	\$ 1,217
PIL's	-\$ 289	\$ 11,442	\$ 23,169

**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model - GS < 50 kW Class**

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**Average Net Fixed Assets**

	2008 Actual	2009 Actual	2010 Forecasted
<b>Net Fixed Assets - meters</b>			
Opening Capital Investment	\$ -	\$ -	\$ 1,802,692
Capital Investment	\$ -	\$ 1,802,692	
Closing Capital Investment	\$ -	\$ 1,802,692	\$ 1,802,692
Opening Accumulated Amortization	\$ -	\$ -	\$ 60,090
Amortization Year One	15 years \$ -	\$ 60,090	\$ -
Amortization Thereafter	\$ -	\$ -	\$ 120,179
Closing Accumulated Amortization	\$ -	\$ 60,090	\$ 180,269
Opening Net Fixed Assets	\$ -	\$ -	\$ 1,742,602
Closing Net Fixed Assets	\$ -	\$ 1,742,602	\$ 1,622,423
Average Net Fixed Assets	\$ -	\$ 871,301	\$ 1,682,513

	2008 Actual	2009 Actual	2010 Forecasted
<b>Net Fixed Assets - software</b>			
Opening Capital Investment	\$ -	\$ 6,196	\$ 11,259
Capital Investment	\$ 6,196	\$ 5,063	
Closing Capital Investment	\$ 6,196	\$ 11,259	\$ 11,259
Opening Accumulated Amortization	\$ -	\$ 1,033	\$ 3,942
Amortization Year One	3 years \$ 1,033	\$ 844	\$ -
Amortization Thereafter	\$ -	\$ 2,065	\$ 3,753
Closing Accumulated Amortization	\$ 1,033	\$ 3,942	\$ 7,695
Opening Net Fixed Assets	\$ -	\$ 5,163	\$ 7,317
Closing Net Fixed Assets	\$ 5,163	\$ 7,317	\$ 3,564
Average Net Fixed Assets	\$ 2,582	\$ 6,240	\$ 5,441

**Totals**

Average Net Fixed Assets	\$ 2,582	\$ 877,541	\$ 1,687,953
Amorization Expense	\$ 1,033	\$ 62,999	\$ 123,932
Capital Investment	\$ 6,196	\$ 1,807,755	\$ -

**PowerStream Inc.**  
**Actual Smart Meter Cost Recovery Model - GS < 50 kW Class**  
**For PILs Calculation**

**UCC**

	2008 Forecasted	2009 Forecasted	2010 Forecasted
Opening UCC	\$ -	\$ -	\$ 1,730,584
Capital Additions	\$ -	\$ 1,802,692	\$ -
UCC Before Half Year Rule	\$ -	\$ 1,802,692	\$ 1,730,584
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ 901,346	\$ -
Reduced UCC	\$ -	\$ 901,346	\$ 1,730,584
CCA Rate Class	47		
CCA Rate	8%		
CCA	\$ -	\$ 72,108	\$ 138,447
Closing UCC	\$ -	\$ 1,730,584	\$ 1,592,138

**UCC**

	2008 Forecasted	2009 Forecasted	2010 Forecasted
Opening UCC	\$ -	\$ 4,492	\$ 5,692
Capital Additions	\$ 6,196	\$ 5,063	\$ -
UCC Before Half Year Rule	\$ 6,196	\$ 9,555	\$ 5,692
Half Year Rule (1/2 Additions - Disposals)	\$ 3,098	\$ 2,532	\$ -
Reduced UCC	\$ 3,098	\$ 7,024	\$ 5,692
CCA Rate Class	50		
CCA Rate	55%		
CCA	\$ 1,704	\$ 3,863	\$ 3,131
Closing UCC	\$ 4,492	\$ 5,692	\$ 2,561
Total CCA	\$ 1,704	\$ 75,971	\$ 141,577



**PowerStream Inc.**

**Actual Smart Meter Cost Recovery Model - GS < 50 kW Class**

**Table Staff 16-1: Account 1555 Smart Meter  
 Capital and Offset Account – Principal**

Month	Opening Balance	SM Adder	Revenue Requirement	Closing Balance (excluding Stranded)
Jan-08	0	(21,486)	161	(21,325)
Feb-08	(21,325)	(14,438)	161	(35,603)
Mar-08	(35,603)	(16,864)	161	(52,306)
Apr-08	(52,306)	(17,014)	161	(69,160)
May-08	(69,160)	(26,123)	161	(95,122)
Jun-08	(95,122)	(27,136)	161	(122,097)
Jul-08	(122,097)	(28,262)	161	(150,199)
Aug-08	(150,199)	(27,916)	161	(177,954)
Sep-08	(177,954)	(26,669)	161	(204,463)
Oct-08	(204,463)	(30,333)	161	(234,635)
Nov-08	(234,635)	(27,530)	161	(262,004)
Dec-08	(262,004)	(28,667)	161	(290,511)
Jan-09	(290,511)	(29,046)	13,184	(306,373)
Feb-09	(306,373)	(26,136)	13,184	(319,324)
Mar-09	(319,324)	(28,350)	13,184	(334,490)
Apr-09	(334,490)	(27,753)	13,184	(349,059)
May-09	(349,059)	(28,897)	13,184	(364,772)
Jun-09	(364,772)	(32,584)	13,184	(384,171)
Jul-09	(384,171)	(28,972)	13,184	(399,959)
Aug-09	(399,959)	(29,169)	13,184	(415,944)
Sep-09	(415,944)	(24,398)	13,184	(427,157)
Oct-09	(427,157)	(24,977)	13,184	(438,950)
Nov-09	(438,950)	(24,636)	13,184	(450,402)
Dec-09	(450,402)	(25,191)	13,184	(462,409)
Jan-10	(462,409)		22,557	(439,852)
Feb-10	(439,852)		22,557	(417,295)
Mar-10	(417,295)		22,557	(394,739)
Apr-10	(394,739)		22,557	(372,182)
May-10	(372,182)		22,557	(349,626)
Jun-10	(349,626)		22,557	(327,069)
Jul-10	(327,069)		22,557	(304,512)
Aug-10	(304,512)		22,557	(281,956)
Sep-10	(281,956)		22,557	(259,399)
Oct-10	(259,399)		22,557	(236,842)
<b>Total</b>		<b>(622,547)</b>	<b>385,705</b>	<b>(236,842)</b>

2008	(292,438)	1,927
2009	(330,109)	158,211
2010	0	225,566
	<u>(622,547)</u>	<u>385,705</u>

**PowerStream Inc.**

**Actual Smart Meter Cost Recovery Model - GS < 50 kW Class**

**Table Staff 16-2: Account 1555 – Interest**

Month	Opening Balance (excluding Stranded)	Days	Rate	Interest	To Date
Jan-08	0	31	5.14%	0	0
Feb-08	(21,325)	28	5.14%	(84)	(84)
Mar-08	(35,603)	31	5.14%	(155)	(240)
Apr-08	(52,306)	30	4.08%	(175)	(415)
May-08	(69,160)	31	4.08%	(240)	(655)
Jun-08	(95,122)	30	4.08%	(319)	(974)
Jul-08	(122,097)	31	3.35%	(347)	(1,321)
Aug-08	(150,199)	31	3.35%	(427)	(1,748)
Sep-08	(177,954)	30	3.35%	(490)	(2,238)
Oct-08	(204,463)	31	3.35%	(582)	(2,820)
Nov-08	(234,635)	30	3.35%	(646)	(3,466)
Dec-08	(262,004)	31	3.35%	(745)	(4,212)
Jan-09	(290,511)	31	2.4500%	(605)	(4,816)
Feb-09	(306,373)	28	2.4500%	(576)	(5,392)
Mar-09	(319,324)	31	2.4500%	(664)	(6,056)
Apr-09	(334,490)	30	1.0000%	(275)	(6,331)
May-09	(349,059)	31	1.0000%	(296)	(6,628)
Jun-09	(364,772)	30	1.0000%	(300)	(6,927)
Jul-09	(384,171)	31	0.5500%	(179)	(7,107)
Aug-09	(399,959)	31	0.5500%	(187)	(7,294)
Sep-09	(415,944)	30	0.5500%	(188)	(7,482)
Oct-09	(427,157)	31	0.5500%	(200)	(7,681)
Nov-09	(438,950)	30	0.5500%	(198)	(7,880)
Dec-09	(450,402)	31	0.5500%	(210)	(8,090)
Jan-10	(462,409)	31	0.5500%	(216)	(8,306)
Feb-10	(439,852)	28	0.5500%	(186)	(8,492)
Mar-10	(417,295)	31	0.5500%	(195)	(8,687)
Apr-10	(394,739)	30	0.5500%	(178)	(8,865)
May-10	(372,182)	31	0.5500%	(174)	(9,039)
Jun-10	(349,626)	30	0.5500%	(158)	(9,197)
Jul-10	(327,069)	31	0.5500%	(153)	(9,350)
Aug-10	(304,512)	31	0.5500%	(142)	(9,492)
Sep-10	(281,956)	30	0.5500%	(127)	(9,620)
Oct-10	(259,399)	31	0.5500%	(121)	(9,741)