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May 29, 2012
BY RESS \& COURIER
Ms. Kirsten Walli, Board Secretary
Ontario Energy Board
2300 Yonge Street, 26th Floor, P.O. Box 2319
TORONTO, ON M4P 1E4

## Re: Festival Hydro Inc. <br> Smart Meter Recovery Application <br> EB-2012-0260

Dear Ms. Walli,
Attached are two copies of Festival Hydro Inc's Smart Meter Cost Recovery Stand-Alone Application for an order or orders approving rates for smart meter recovery to be implemented on November 1, 2012.

Certain documents referred to in this Application are being filed in confidence, pursuant to the Board's Practice Direction in Confidential Filings, for supplier competitive pricing reasons. The confidential material will be delivered to the Board in an envelope marked "confidential" under separate cover.

The completed Application (excluding confidential appendices) and supporting excel worksheets were submitted today via the Ontario Energy Board's RESS system.

If you have any questions please contact me at the number noted below or by email at bzehr@festivalhydro.com.

Yours truly,
Festival Hydro Inc.
ORIGINAL SIGNED BY W.G. ZEHR
W.G. Zehr, President

Tel (519) 271-4703 x. 243

IN THE MATTER OF the Ontario Energy Board Act, 1998, being S.O. 1998, c.15, Schedule B:

AND IN THE MATTER OF an application by Festival Hydro Inc. for an Order or Orders approving of fixing just and reasonable rates with respect to smart meter costs recovery, to be effective

November 1, 2012.

## APPLICATION

The Applicant, Festival Hydro Inc. ("Festival"), is an electricity distributor licenced by the Ontario Energy Board ("OEB" or "Board") under the Ontario Energy Board Act, 1998 (EB-2002-0513). Festival distributes electricity to approximately 19,900 customers in the City of Stratford and the surrounding towns of St. Marys, Seaforth, Brussels, Dashwood, Hensall and Zurich. Festival is wholly owned by the City of Stratford, with its head office located within the City.

In this Stand-alone Application, Festival is seeking disposition of its smart meter variance account with projected costs through to and including October 31, 2012. Festival request that the Board approve two proposed smart meter rate riders as determined in accordance with G-2011-0001 Guideline, Smart Meter Funding and Cost Recovery Final Disposition, December 15, 2011, to be effective November 1, 2012. Festival has undertaken class-specific modelling, so that the costs and allocated costs for infrastructure will be borne by each customer class consistent with the principle of cost causality.

The smart meter rate riders for which Festival seeks approval from the Board are as follows:
a) A Smart Meter Disposition Rate Rider ("SMDR") (Residential and Hensall Residential rate classes - (\$0.92) per metered customer per month; G.S. $<\mathbf{5 0} \mathbf{~ k W}$ rate class - $\mathbf{\$ 2 . 1 7}$ per metered customer per month), to be effective November 1, 2012, to recover the deferred revenue requirement through to December 31, 2011. This represents the difference resulting from revenues collected from customers to April 30, 2012 versus the revenue requirement recoverable to December 31, 2011. The SMDR would be in effect from November 1, 2012 to April 30, 2014, which is the next scheduled implementation date for rates based on a Cost of Service Application for Festival.
b) A Smart Meter Incremental Revenue Requirement Rate Rider ("SMIRR") (Residential and Hensall Residential rate classes - \$2.47 per metered customer per month; G.S. $<\mathbf{5 0} \mathbf{~ k W}$ rate class - $\mathbf{\$ 6 . 0 1}$ per metered customer per month) to recover the annual revenue requirement associated with Smart Meters installed from inception of the Smart Meter Program through to April 30, 2012 and forecasted Smart Meter Operating Expenditures for April 30, 2012 to October 31, 2012.

Festival is requesting the new SMDR and SMIRR rate riders take effect November 1, 2012, in conjunction with the OEB's semi-annual RPP and TOU commodity price changes.

Festival has calculated the overall monthly bill impact for a typical customer as follows:

## Table 1 - Bill Impact

| Class | $\underline{\mathbf{k W h}}$ | $\underline{\text { Total Bill Impact (\$) }}$ | Total Bill Impact <br> $(\%)$ <br> Residential |
| :--- | :--- | :--- | :--- |
| Residential <br> Hensall | 800 | $\$ 1.55$ | $1.3 \%$ |
| G.S. $<50 \mathrm{~kW}$ | 2,000 | $\$ 8.18$ | $1.4 \%$ |
| G.S. $<50 \mathrm{~kW}$ | 10,000 | $\$ 8.18$ | $2.9 \%$ |

(Above table does not take into account possible TOU pricing changes effective Nov 1, 2012)
Being the SMDR and SMIRR rate riders are both fixed charges, the higher the customer's consumption, the lower the percentage impact. While Festival does have a number of G.S. < 50 kW customers with usage of approximately 2000 kWh per month, Festival also has G.S. < 50 kW customers with usage of $20,000 \mathrm{kWh}$ per month. A G.S. $<50 \mathrm{~kW}$ customer with usage of approx. $6,100 \mathrm{kWh}$ per month will see a $1.0 \%$ total impact on their bill.

All other rate classes will continue to have monthly bill impacts as presented in the 2012 IRM rate application EB-2011-0083, approved by the Board in its Decision and Order dated April 1, 2012.

This application has been prepared according to the Board's guidelines as prescribed in the following:

- The Board's Smart Meter Finding and Recovery Guideline (G-2008-002) dated October 22, 2008
- G-2011-0001 Guideline - Smart Meter Funding and Cost Recovery - Final; Disposition issued December 15, 2011 "(Final Disposition Guideline)"
- The Smart Meter Model issued by the Board dated November 11, 2011
- Previous Board decisions.

Festival requests that, pursuant to Section 34.01 of the Board's Rules of Practice and Procedure, this Application be disposed by way of a written hearing. In the event the Board determines it is necessary to convene an oral hearing, Festival will then advise the Board as to the members of the witness panel. It is expected the witness panel will be comprised of Festival personnel.

Festival's next cost of service ("COS") application is scheduled for May 2014. In the next COS, Festival will include the approved smart meter capital (and associated accumulated depreciation) and the annual operating costs in its application, and seek to include the above costs in its rate base and revenue requirement.

## CONTACT INFORMATION

Festival requests that a copy of all documents filed with the Board in this proceeding be served on the Applicant as follows:

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President, Festival Hydro
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Respectfully submitted this 29th day of May 2012.
FESTIVAL HYDRO INC.
ORIGINAL SIGNED BY W.G. ZEHR
W.G. Zehr

President

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## Manager's Summary

## Introduction

As outlined in the G-2011-0001 Guideline - Smart Meter Funding and Cost Recovery - Final Disposition issued December 15, 2011 (the "Guideline"), the Board expects distributors to file for a final review for prudence and disposition of smart meter costs at the earliest opportunity following the availability of audited costs. For those distributors that were scheduled to remain on IRM, the Board expected distributors to file stand-alone applications.

In Festival's 2012 IRM application dated October 4, 2011 (EB-2011-0167), Festival informed the Board of its intent to file a stand-alone application in May 2012, based on final audited financial statements as at December 31, 2011. Festival further proposed that the new smart meter rate riders be implemented effective November 1, 2012, to coincide with the semi-annual RPP and TOU price changes.

## Smart Meter Program Status

Festival has installed a total of 17,651 residential smart meters and 1,999 G.S. $<50$ smart meters, representing $100 \%$ of residential and G.S. < 50 kW customers. Physical deployment was substantially completed by December 31, 2010, with a limited number of meters being deployed in 2011.

TOU Pricing is scheduled to commence with the first full month's consumption after April 30, 2012. Festival's date for implementation of TOU rates was initially scheduled for September 2011. Due to technical issues and turnover of key information technology personnel, Festival filed a request for an extension with the Board in May, 2011. The Board granted Festival an extension, with TOU pricing to be effective May 1, 2012.

## Project Specifics

## Procurement of Smart Meters

Festival believes it has procured the Smart Meters, including related infrastructure and services, in a prudent manner and it should therefore be permitted to recover all such costs as requested herein. The costs incurred by Festival are within the range of costs of other distributors.

## Procurement-Capital

Festival purchased and installed 17,651 residential meters and 1,999 meters for GS $<50 \mathrm{~kW}$ customers from Trilliant Networks Canada ("Trilliant"). Festival also purchased and installed 135 smart meters for $G S>50 \mathrm{~kW}$ customers, but are not seeking recovery through this application.
O. Reg. 427/06 Smart Meters: Discretionary Metering Activity and Procurement Principles provides authorization for certain metering activities. Festival utilized the Hydro One Networks Inc. ("Hydro One") approved procurement process identified in paragraph 1.(1)5 of O. Reg. 427/06. Festival confirms the price received from Trilliant was the same price paid by Hydro One. Festival entered into a contractual arrangement with Trilliant on December 24, 2009. The purchase price of the smart meters is the vast majority of the capital spend.

1. (1) The following activities are authorized discretionary metering activities for the purposes of section 53.18 of the Act:
2. Metering activities conducted pursuant to the Request for Proposal for Smart Metering Services issued by Hydro One Networks Inc. and dated March 4, 2005.
3. Metering activities conducted by a distributor that has had its smart meters procured on its behalf by Hydro One Networks Inc. pursuant to the process referred to in paragraph 5.

As discussed, in Smart Meter Deployment and Installation below, the installation of the meters was carried out in a timely, cost-effective manner. Festival, along with Trilliant, sought to create an efficient network of collectors that would provide the necessary connectivity and redundancy to meet the smart meter program requirements. The number of collectors was optimized for Festival's service territory while ensuring adequate coverage and redundancy was maintained.

Festival used the approved procurement process identified in O.Reg. 427/06 and managed the design and implementation of the infrastructure in a prudent and costeffective manner. As Festival used an authorized process, the capital costs should be considered to be prudent and should be recoverable.

## Smart Meter Deployment \& Installation

The smart meter installation commenced in March 2010. The deployment of meters was primarily completed using trained temporary help.

The initial installation of the smart meters was carried out by experienced Festival employees. Festival used experienced lineman at the initial stages of the program and completed the installation in areas other than the Town of St. Marys and City of Stratford. This experience was then used to train the temporary employees for the installation of the remaining meters. This process ensured the installation of smart meters was carried out in a timely, cost effective and prudent manner.

For the summer months, Festival hired six students to undertake the deployment of the single phase meters. Most of the students were College/University students enrolled in either the linemen training course or electrical technician course. Proper training in installation and related safety training was provided in advance of the deployment activities by the Metering Department. These students substantially completed the deployment of the remaining single phase meters in the Town of St. Marys and the City of Stratford.

The deployment of complex meters, used by a number of G.S. < 50 kW customers, required a higher skill level for deployment. Festival contracted with two retired metering technicians to deploy the bulk of these meters. Proper installation and related safety training was provided in advance by Festival's Metering Department. The per meter costs for installation of three phase meters was higher than single phase due to higher salaries paid compared to the students and the additional time required to install more complex meters.

In addition to the contracted staff, Festival has two employees in its Metering Department - a Meter Manager and one Meter Technician (both here previous to smart meter deployment). Both employees were substantially involved in the deployment of meters. After the mass deployment was completed in 2010, the Metering Department completed the installation of the "hard to reach" meters and more complex metering situations. They were involved and continue to be involved in the trouble shooting of problematic meters. Salaries and benefits for these two staff members continued to be charged to USOA \#5065 Meter Expense and were not treated as incremental costs added to the smart meter project.

To improve the efficiency of the deployment process, Festival purchased a product available through Fieldworker Mobile Technology Solutions. This platform was used by a number of LDCs on the Daffron Billing (CIS) System. The software allowed for the downloading of customer and meter data onto handhelds and subsequent uploading of new data directly to the CIS System, thus greatly improving the efficiency and accuracy of the smart meter deployment. Being it was already operational for a number of LDC's it was purchased at a nominal cost.

## Smart Meter Data Communication

The OM\&A costs are a function of the technology chosen, the options available, and the geographic territory served. After considering these factors, Festival determined that it would procure services from its affiliate, Festival Hydro Services Inc. ("Rhyzome Networks") pursuant to an agreement which may be found in the appendices.

The majority of OM\&A costs relate to providing connectivity or backhaul services for the meters and collectors. This service had to meet the requirements of the smart meter program. As such, factors considered in the decision included system availability and cost predictability. Festival uses a Wi-Fi system provided by Rhyzome Networks that provides continuous communication within the fixed price provided. Cost is related to the number of collectors not to the data transfer or dialling activities. As such it is predictable and not susceptible to additional charges.

Prior to proceeding with Rhyzome Networks for connectivity services, Festival considered additional suppliers. However, Festival wanted to have comprehensive coverage over the entire Festival service territory to avoid the necessity of a second supplier. A second supplier would increase the administration cost and complexity for Festival and may result in different issues with each service provider and inconsistent service levels.

In reviewing the options, additional considerations such as the need for an external modem, the potential costs of a power supply with a heated weatherproof cabinet and cellular modem charges were reviewed. For example, the use of the cellular modem would require certain additional OM\&A costs as discussed above. Festival would note that it incurred certain cellular costs, with Bell Canada, prior to the availability of the WiFi and the commencement of the services with Rhyzome Networks. In addition, the use of the cellular modem, and the intermittent communication would limit the ability of the system to incorporate aspects for the smart grid and conservation and demand management as real time communication will be required for those initiatives.

The forecasted OM\&A costs included in this Application are net costs which incorporate the reduction in meter reading charges. Festival believes the process it followed was appropriate, prudent and, where appropriate, compliant with the requirements of the Affiliate Relationships Code. As such, Festival is requesting approval of the OM\&A costs identified herein.

## Integration with the Provincial Meter Data Management Repository (MDM/R)

To prepare for the integration to the MDM/R, members of Festival's smart meter team attended a number of IESO training sessions. Registration with the IESO and delivery of the integration project plan took place in 2010. Connectivity testing (completed in September 2011), was followed by Unit testing (completed in January 2012), System Integration (SIT) (completed end of January 2012) and Qualification Testing (QT) (completed February 2012). A set of test scripts were purchased from Util-Assist to assist in completion of Festival's SIT \& QT testing. Cut over to live data transfer with the MDMR commenced on May 1, 2012 and is operational, in preparation for time of use billing. Festival is capable of meeting the requirements of MDM/R level 7.2 plus, and will be presenting both the TOU block structures and the meter reads on their first TOU bills, pursuant to Measurement Canada's direction.

A subset of the smart meter team was responsible for the end to end testing with the MDM/R and internal CIS testing for time of use pricing. One IT resource was added early in the project to meet the demands of the detailed testing and related development. This individual was also directly involved in the business process redesign, because of his in-depth knowledge of how the new systems would impact day to day business activities.

At the beginning of April 2012, a second employee was hired as an AMCC operator to manage the day to day processing. It is expected that both of these resources will be largely committed to the smart meter project for the next six months, with a reduction in time as the systems becomes more stable and staff become more familiar with their roles within the smart meter environment. Post November 1, 2012, Festival expects the time required for AMCC administration and related smart meter tasks will net out to one full-time equivalent incremental position within the Company.

## Transition to TOU Pricing

TOU Pricing is scheduled to commence with the first full month's consumption after April 30, 2012. Customers will start to receive their first TOU bill in June 2012. The web presentment is scheduled to be available for customer use by the time the first TOU bills are issued in June 2012.

There is a group of problematic meters which are currently not communicating properly. For the time being, these accounts will remain on RPP pricing. Festival's Metering and Information Technology teams are actively working to get these issues resolved so these accounts may soon be moved to TOU pricing.

## Business Process Re-Design

The overall smart meter project was managed by an internal team at Festival. The team included both Management and staff from a number of disciplines including Billing, Customer Service, Engineering, Information Technology, Metering, Finance and Regulatory. This additional work was fit into existing schedules and was accomplished through delaying of other work or working of overtime where needed. A subset of this group was responsible for business process re-design.

## Customer Education

Festival undertook a number of communication activities to educate our customers on TOU Pricing. Most of the customer communication costs incurred related to printed materials and bill stuffers. Some of the customer education activities undertaken by Festival included:

- At the time of smart meter deployment, the booklet "Getting Smart about Smart Meters - Answer Book" was distributed to all households along with a letter explaining the switching out of their meter.
- Two months prior to conversion, a bill stuffer was sent explaining the timing of change over to TOU and steps to take to manage their electricity costs.
- The $1^{\text {st }}$ TOU bill issued will have a special message on the outside of the envelope drawing attention to the fact that this is the first bill with TOU pricing. A bill insert with details on TOU pricing will be included.
- At the Stratford Home Show held March 30 to April 1, 2012, Festival manned a booth dedicated to smart meter education. Staff was available to answer questions regarding smart meter deployment and TOU pricing. Fridge magnets were distributed showing the TOU periods and prices.
- A TOU education session is being held for seniors on June 15, 2012 for the Stratford Lakeside Active Adults Association to specifically address TOU pricing as it relates to seniors.

In addition, Festival's website contains various information on smart meters, including a link to the Ministry of Energy Website and other links such as the IESO's 10 Smart Meter Lane.

## Capital and Operating Costs

## Audited Costs

The Guideline states that the Board expects the majority of the total program costs for which the distributor is seeking recovery will be audited. Festival has included audited costs to December 31, 2011. The recommended audited cost target as indicated by the Board is $90 \%$. Capital costs incurred by Festival to December 31, 2011 are $98.9 \%$ of total capital costs included in our smart meter application. OM\&A costs incurred by Festival to December 31, 2011 are 59.7\% of total OM\&A costs included in the application. Total audited costs included in the application are 94.2\% of the overall costs included in the application.

|  | Audited Costs | Total Included in <br> Model | Percentage |
| :--- | :--- | :--- | :--- |
| Capital Costs | $\$ 3,742,725$ | $\$ 3,783,947$ | $98.9 \%$ |
| OM\&A Costs | $\$ 308,684$ | $\$ 516,640$ | $59.7 \%$ |
| Total Costs | $\mathbf{\$ 4 , 0 5 1 , 4 0 9}$ | $\mathbf{\$ 4 , 3 0 0 , 5 8 7}$ | $\mathbf{9 4 . 2 \%}$ |

## Capital/Operating Expenditures \& Cost Allocation

Festival is seeking recovery for the 19,650 smart meters installed in its service territory. Installation was primarily completed in 2010, with a few final installations in 2011. Installations occurring after early 2011 represent meters for new customers and are not included in this application. Costs incurred in 2012 related mainly to the installation of repeaters to increase communication effectiveness for some meters, in addition to information systems work completed for CIS systems updates and TOU rate implementation as well as web presentment. For the sale of scrap meters, Festival
sold the meters to Green-Port Environmental, who were providing this service to a number of other LDCs. The proceeds from the sale of scrap meters has been applied as an offset to the smart meter capital costs.

The table below shows costs included in the application for capital and OM\&A.

|  | Audited <br> $\mathbf{2 0 0 9}$ | Audited 2010 | Audited <br> $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Capital | $\$ 7,546$ | $\$ 3,459,959$ | $\$ 275,220$ | $\$ 41,222$ | $\$ \mathbf{3 , 7 8 3 , 9 4 7}$ |
| OM\&A | $\$ 0$ | $\$ 115,578$ | $\$ 193,106$ | $\$ 207,955$ | $\$ 516,640$ |
| Total | $\$ 7,546$ | $\$ 3,575,537$ | $\$ 468,326$ | $\$ 249,177$ | $\$ 4,300,587$ |

In addition to the overall costing model, Festival also prepared two additional models detailing the costs incurred by rate class. Festival has undertaken class-specific modeling, so that the costs and allocated costs for infrastructure are borne by each customer class consistent with the principle of cost causality. Management at Festival believes this is appropriate because of the higher cost of the meter itself and higher installation costs associated with the G.S. < 50 kW installations. While certain costs included in these models were allocated based on meter population in the rate class, other specific costing accumulated through work orders was also used in completing the models. This information is included in the tables below.

| Residential | Audited 2009 | Audited 2010 | Audited 2011 | $\mathbf{2 0 1 2}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :--- |
| Capital | $\$ 6,778$ | $\$ 2,447,434$ | $\$ 225,387$ | $\$ 38,936$ | $\mathbf{\$ 2 , 7 1 8 , 5 3 5}$ |
| OM\&A | $\$ 0$ | $\$ 103,824$ | $\$ 173,467$ | $\$ 186,800$ | $\mathbf{\$ 4 6 4 , 0 9 2}$ |
| Total | $\mathbf{\$ 6 , 7 7 8}$ | $\mathbf{\$ 2 , 5 5 1 , 2 5 8}$ | $\mathbf{\$ 3 9 8 , 8 5 4}$ | $\mathbf{\$ 2 2 5 , 7 3 6}$ | $\mathbf{\$ 3 , 1 8 2 , 6 2 7}$ |


| GS $<50 \mathrm{~kW}$ | Audited 2009 | Audited 2010 | Audited 2011 | $\mathbf{2 0 1 2}$ | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Capital | $\$ 768$ | $\$ 1,012,526$ | $\$ 49,837$ | $\$ 2,282$ | $\$ 1,065,413$ |
| OM\&A | $\$ 0$ | $\$ 11,754$ | $\$ 19,642$ | $\$ 21,152$ | $\$ 52,548$ |
| Total | $\mathbf{\$ 7 6 8}$ | $\mathbf{\$ 1 , 0 2 4 , 2 8 0}$ | $\mathbf{\$ 6 9 , 4 7 9}$ | $\mathbf{\$ 2 3 , 4 3 4}$ | $\mathbf{\$ 1 , 1 1 7 , 9 6 1}$ |

Full details of the various cost components by year are shown in sheet 2 of the Smart Meter model attached in the appendices.

Based on the cost information included above, Festival's capital cost per smart meter on average is $\$ \mathbf{1 9 2 . 5 7}$ (i.e. 19,650 installed meters with a total capital cost of $\$ 3,783,947$ ). This amount is comparable to the sector average capital costs as reported in the Smart Metering Investment Monitoring Report up to September 2010 which reported $4,382,194$ meters had been installed for a cost of $\$ 994,426,187$ - i.e. an average price of $\$ 226.92$ meters ${ }^{1}$.

Based on the allocated cost information, the capital cost per residential meter is \$154.02 (i.e. 17,651 installed meters with a total capital cost of $\$ 2,718,535$ ). Based on the allocated cost information the capital cost per GS $<\mathbf{5 0} \mathbf{~ k W}$ meter is $\mathbf{\$ 5 3 2 . 9 7}$ (i.e. 1,999 installed meters with a total capital cost of $\$ 1,065,413$ ).

Festival submits that their costs per installed meter are reasonable and were prudently incurred.

## Smart Meter Funder Adder (SMFA) Summary

Festival has been collecting a fixed monthly smart meter rate adder from all metered customers since May 1, 2006. A summary of the smart meter rate adders approved by the Board is provided below:

| Rate Year <br> (effective May <br> $\mathbf{1}^{\text {st }}$ ) | Board Number | Application Type | Approved Rate Adder <br> (per metered customer <br> per month) |
| :--- | :--- | :--- | :--- |
| 2006 | EB-2005-0364 | COS Application | $\$ 0.31$ |
| 2007 | EB-2006-0527 | $2^{\text {nd }}$ G IRM | $\$ 0.26$ |
| 2008 | EB-2007-0872 | $2^{\text {nd }}$ G IRM | $\$ 0.26$ |
| 2009 | EB-2008-0175 | $2^{\text {nd }}$ G IRM | $\$ 1.00$ |
| 2010 | EB-2009-0263 | COS Application | $\$ 1.00$ |
| 2011 | EB-2010-0083 | $3^{\text {rd }}$ G IRM | $\$ 1.52$ |
| 2012 | EB-2011-0167 | $3^{\text {rd }}$ G IRM | $\$ 0.00$ |

In Festival's 2012 IRM Application (EB-2011-0167), Festival requested the continuation of its existing smart meter adder of $\$ 1.52$ per metered customer per month until October 31, 2012. In the Board's Decision and Order dated April 1, 2012, the Board responded that it would not approve the continuation of the SMFA beyond the current expiry date of April 30, 2012.

The total revenue arising from the SMFA by fiscal year is detailed in the table below:

| Fiscal Year | Revenue from <br> SMFA |
| :--- | ---: |
| 2006 | $\$ 44,066$ |
| 2007 | 64,041 |
| 2008 | 60,255 |
| 2009 | 175,794 |
| 2010 | 234,578 |
| 2011 | 308,532 |
| To Apr 30,2012 | 140,694 |
| Interest to Nov 1, 2012 | 36,700 |
| Total Recovery | $\mathbf{\$ 1 , 0 6 4 , 6 6 0}$ |

For cost allocation purposes, the SMFA collected from the G.S. $>50 \mathrm{~kW}$ class and large use class were allocated proportionately based on meter population to the residential and G.S. $<50 \mathrm{~kW}$ classes.

## Incremental Cost Savings

The most significant incremental cost savings with the implementation of smart meters is the reduction in manual meter reading costs. Included in the OM\&A costs in the smart meter model is a monthly reduction of $\$ 6,253$ representing the incremental savings Festival is realizing on the reduction in these expenses.

## Variance Analysis

Although an interim recovery of prudently incurred smart meter costs was permitted by the OEB in earlier guidelines, Festival did not apply for partial recovery of its smart meter costs after $50 \%$ installation had been reached. Therefore, a variance analysis comparing actual costs to previously approved recovery of costs has not been included.

## Costs Beyond Minimum Functionality

Festival has calculated that total capital costs incurred beyond minimum functionality were $\$ 145,147$ and total OM\&A costs beyond minimum functionality are projected at 137,074. These costs include the following items:

## Capital $(\$ 145,147)$

- IT labour costs (CIS upgrades, integration MDM/R, TOU rate implementation) \$61,414
- CIS system upgrades $\$ 72,543$
- Integration MDM/R \$11,190


## OM\& $\mathbf{( \$ 1 3 7 , 0 7 4 )}$

- Web presentment \& ODS \$50,865
- CIS system upgrades \& TOU rate implementation \$86,209

All costs included above are prudently incurred incremental costs necessary to meet the Government's smart meter mandate. No cost is included for which the Smart Meter Entity has exclusive authority to act pursuant to O. Reg. 393/07.

Costs incurred for materials for customer-owned equipment (e.g. repairing meter bases that were damaged in the process of removing the existing meters) were included in a sub account \# 1556.

The following details the various larger contracted and/or purchased services which are part of Festival's spending beyond minimal functionality:

Operational Data Storage - Festival indentified the need for an Operational Data Store (ODS) service to aid in the validation, editing and estimating of smart meter interval data. The ODS interfaces with the billing system and the IESO MDM/R for the purposes of billing as well as to other Festival systems that may use the
information acquired from the AMI network. The ODS Request for Proposal (RFP) was distributed to three (3) vendors in North America who have extensive experience in the Ontario market - Savage Data Systems, Jomar, and Northstar Utilities. Utili-Assist, a consulting group with expertise in this area, was hired to assist Festival's smart metering team in the evaluation process. Savage Data Systems was selected by our internal evaluation committee as they meet the product requirements and were the lowest bidder. The contract is filed in the appendices with the Board on a confidential basis.

Web Presentment - An RFP was issued by Festival for Web Presentment software to three vendors (Daffron, Silverblaze and Whitecap). Silverblaze was selected by our internal evaluation committee because of being the lowest cost contract yet meeting all of the minimum requirements. The software was purchased outright from Silverblaze, with an annual maintenance agreement.

System Changes - Customer Information System ("CIS") modifications were required for Festival's CIS system as part of smart meter deployment and implementation of TOU billing. Festival's CIS provider, Daffron Canada, provided the necessary updates required, including requirements under the IESO's 7.2 plus. The costs to upgrade the software were shared amongst the Ontario LDCs who use the Daffron software.

## $\underline{\text { Treatment of Smart Meters for G.S. > } 50 \mathrm{~kW} \text { Customer Class }}$

Festival recognized that the installation of smart meters for G.S. > 50 kW customers was beyond the definition of minimum functionality. However, Festival decided it was prudent to change out the 135 G.S.> 50 kW meters (i.e. G.S. $>50 \mathrm{~kW}$ to 200 kW ) at the same time for the following reasons:

- To leave these 135 meters scattered throughout our service territory requiring manual meter reads would have resulted in an inefficient meter reading operation.
- Annually, Festival reviews classification of accounts in accordance with Section 2.5 of the Distribution System Code. There are generally a number of accounts which switch annually from G.S. < 50 kW to G.S. > 50 kW (non-interval) and vice versa. Having smart meters in place for all these accounts will make it much easier and less costly at the time of re-classification.
- G.S. > 50 kW customers will now have access to Web presentment for their usage to be able to take action on peak reduction and energy savings thorough conservation programs.

The costs for these meters and related installation costs have been charged to USOA \# 1860 Meter Capital and are not included in this application.

## Stranded Meter Costs

In The Guideline for Smart Meter Funding and Cost Recovery - Final Disposition, the Board states that "starting in the 2012 EDR process, distributors seeking recovery of stranded meter costs should bring forward these requests in a cost of service application". Festival concurs with the Board direction and is not seeking disposition of its stranded meter costs in this Application. Festival continues to recover these costs by including the net book value of the stranded meters in its rate base. The stranded meters continue to be amortized, being charged to Acct \# 5705 Amortization Expense. The disposition of the stranded meter balances will be addressed as part of Festival's next scheduled Cost of Service Application in 2014.

## Conclusion

It is respectfully submitted that the costs requested for recovery in this application have been necessary to fulfill Festival's obligations under the Provincially-mandated Smart Meter Initiative; have been prudently incurred in accordance with Board guidelines; the proposed rate riders are just and reasonable; the associated customer bill impacts are reasonable; and it is therefore appropriate that the Board approve the proposed rate riders for implementation effective November 1, 2012.

Dated: May 29, 2012

## Appendix A

## (filed in confidence)

## Appendix B

## (filed in confidence)

## Appendix C

## (filed in confidence)

## Appendix D



## 

## Application Contact Information

| Name: | Debbie Reece |
| :---: | :---: |
| Title: | Chief Financial Officer |
| Phone Number: | 519-271-4703 268 |
| Email Address: | dreece@festivalhydro.com |
| We are applying for rates effective: | November 1, 2012 |
| Last COS Re-based Year | 2010 |



INPUT FIELD

We are applying for rates

Last COS Re-based Year 2010

## Copyright

This Workbook Model is protected by copyright and is being made available to you solely for the purpose of filing your 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 the application or reviewing your draft rate order, you must ensure that the person understands and agrees to the restrictions noted above.

While this model has been provided in Excel format and is required to be filed with the applications, the onus remains on the applicant to ensure the accuracy of the data and the results. The use of any models and spreadsheets does not automatically imply Board approval. The onus is on the distributor to prepare, document and support its application. Board-issued Excel models and spreadsheets are offered to assist parties in providing the necessary information so as to facilitate an expeditious review of an application. The onus remains on the applicant to ensure the accuracy of the data and the results.

## 寘 Ontario Energy Board

Smart Meter Model
Festival Hydro Inc.
Distributors must enter all incremental costs related to their smart meter program and all revenues recovered to date in theapplicable tabs except for
those costs (and associated revenues) for which the Board has approved on a final basis, i.e. capital costs have been includel in rate base and OM\& A
costs in revenue requirent costs in revenue requirement.
For 2012, distributors that have completed their deployments by the end of 2011 are not expected to enter any capital costs. However, for OM\&A,
regardess of whether a distributor has deployments in 2012, distributors should enter the forecasted OM\&A for 2012 for all smart meters in service.

## Smart Meter Capital Cost and Operational Expense Data

Smart Meter Installation Plan

## Actual/Planned number of Smart Meters installed during the Calendar Yea

## Residential

General Service < 50 kW
ActualPlanned number of Smart Meters installed (Residential and $\mathrm{GS}<50 \mathrm{~kW}$ only)
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed
ActualPlanned number of $\mathrm{GS}>50 \mathrm{~kW}$ meters installed
Other (please identify)
Total Number of Smart Meters installed or planned to be installed

## Capital Costs

1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)
1.1.1 Smart Meters (may include new meters and modules, etc.)
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, elt.)
1.1.3a Workforce Automation Hardware (may include feildwork handhells, barcode harrware, etc.)
1.1.3b Workforce Automation Software (may include fieldwork handhellds, barcode hardware, etc.)
Total Advanced Metering Communications Devices (AMCD)
1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)
1.2.1 Collectors
1.2.2 Repeaters (may include radio icences, eto,
1.2.3 Installation (may include meter seals and rings, collector computer hardiware, etce)
rotal Advanced Metering Regional Collector (AMRC) (Includes LAN)
$2006 \quad 2007$
${ }^{2007}$


| 1.3 ADVANCED METERING CONTROL COMPUTER (AMCC) | Asset Type | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Forecast |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.3.1 Computer Hardware | Computer Hardware |  |  |  |  | 8,844 |  |  | \$ | 8,844 |
| 1.3.2 Computer Software | Computer Software |  |  |  | $\square$ | 14,250 | $\square$ |  | \$ | 14,250 |
| 1.3.3 Computer Software Licences \& Installation (includes hardware and software) (may include AS/400 disk space, backup and recovery computer, UPS, etc.) | Computer Software | - | - | $\square$ | - | 69,858 | - | - | \$ | 69,858 |
| Total Advanced Metering Control Computer (AMCC) |  | $\stackrel{ }{\$}$ | $\stackrel{ }{\text { s }}$ | $\stackrel{ }{\text { s }}$ | $\stackrel{ }{\text { s }}$ | \$ 92,951 | $\stackrel{ }{\text { s }}$ | $\stackrel{ }{\text { s }}$ | $\stackrel{ }{5}$ | 92,951 |
|  | Asset Type |  |  |  |  |  |  |  |  |  |
| 1.4 WIDE AREA NETWORK (WAN) |  | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Forecast |  |  |
| 1.4.1 Activiation Fees |  |  |  |  |  | - | $\square$ | $\square$ | \$ |  |
| Total Wide Area Network (WAN) |  | \$ | $\stackrel{\text { s }}{ }$ | $\stackrel{\text { s }}{ }$ | \$ | $\stackrel{ }{\$}$ | \$ | \$ | \$ |  |
|  | Asset Type |  |  |  |  |  |  |  |  |  |
| 1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY |  | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Forecast |  |  |
| 1.5.1 Customer Equipment (including repair of damaged equipment) |  |  |  |  |  |  |  |  | \$ |  |
| 1.5.2 AMI Interface to CIS | Computer Software |  |  |  |  | 12,812 | 5,997 |  | \$ | 18,809 |
| 1.5.3 Professional Fees | Smart Meter |  |  |  | 7,536 | $\square$ | $\square$ |  | \$ | 7,536 |
| 1.5.4 Integration | Computer Software |  |  |  |  | $\square$ | 24,026 |  | \$ | 24,026 |
| 1.5.5 Program Management | Other Equipment |  |  |  |  | 31,987 | 19,265 |  | \$ | 51,252 |
| 1.5.6 Other AMI Capital | Other Equipment |  |  |  | 9 | 24,761 | 47,831 | 14,057 | \$ | 86,659 |
| Total Other AMI Capital Costs Related to Minimum Functionality |  | \$ | \$ | S | \% 7,546 | \$ 69,561 | \$ 97,118 | $\$ \quad 14,057$ | \$ | 188,281 |
| Total Capital Costs Related to Minimum Functionality |  | \$ | \$ | \$ | \$ 7,546 | \$ $3.450,300$ | \$ 166,157 | \$ 14,798 | \$ | $3,638,800$ |
|  | Asset Type |  |  |  |  |  |  |  |  |  |
| 1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY (Please provide a descriptive title and identify nature of beyond minimum tunctionality costs) |  | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Forecast |  |  |
| 1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06 | Computer Software |  |  |  |  |  |  |  | \$ |  |
| 1.6.2 Costs for deployment of smart meters to customers other than residential and small general service | Applications Sotware |  |  |  |  |  |  |  | \$ | - |
| 1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc. | Other Equipment |  |  |  |  | 9,660 | 109,063 | 26,424 | \$ | 145,147 |
| Total Capital Costs Beyond Minimum Functionality |  | $\stackrel{ }{\text { S }}$ | $\stackrel{ }{\text { s }}$ | $\stackrel{5}{5}$ | $\stackrel{ }{\text { S }}$ | \$ 9,660 | \$ 109,063 | \$ 26,424 | S | 145,147 |
| Total Smart Meter Capital Costs |  | $\xlongequal{\text { S }}$ | \$ | \$ | \$ 7,546 | \$ 3,459,959 | \$ 275,220 | \$ 41.222 | § | 3,783,947 |

## 2 OM\&A Expenses

2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)
2.1.1 Maintenance (may include meter reverification costs, etc.)
2.1.2 Other (please specifiy) Meter r troubleshooting

Total Incremental AMCD OM\&A Costs
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)
2.2.1 Maintenance
2.2.2 Other (please specifiy)

Total Incremental AMRC OM\&A Costs
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)
2.3.1 Hardware Maintenance (may include severer support, etc.)
2.3.2 Software Maintenance (may include maintenancos support, et.).
2.3.2 Other (please specifiy) AMCC IT position

Total Incremental AMCC OM\&A Costs

### 2.4 WIDE AREA NETWORK (WAN)

2.4.1 WAN Maintenance
2.4.2 Other (please specifiy) Communication services

## tal Incremental AMRC OM\&A Cos

2.5 OTHER AMI OM\&A COSTS RELATED TO MINIMUM FUNCTIONALITY
2.5.1 Business Process Redesign
2.5.2 Customer Communication (may include project communication, etc.)
2.5.3 Program Management
2.5.4 Change Management (may include training, etc.)
2.5.5 Administration Costs
2.5.6 Other AMI Expenses

Total Other AMI OM\&A Costs Related to Minimum Functionality

## TOTAL OM\&A COSTS RELATED TO MINMUM FUNCTIONALTY

2.6 OM\&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALIT

Please provide a descripitive title and identity nature of beyond minimum tunctionality costs)
.6.1 Costs related to technical capabilities in the smart $m$ or hat exceed those specified in O . Reg 425/06
2.6. 2 Costs for deployment of smart meters to customers other than residentia nd small general service
2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDMRR, etc.

Total OM\&A Costs Beyond Minimum Functionality
Total Smart Meter OM\&A Costs


| 3.1 .1 | Smart Meter |
| :--- | :--- |
| 3.1 .2 | Computer Hardware |
| 3.1 .3 | Computer Software |
| 3.1 .4 | Tools \& Equipment |
| 3.1 .5 | Other Equipment |
| 3.1 .6 | Applications Software |
| 3.1 .7 | Total Capital Costs |
| 3.2 | OM\&A Costs |
| 3.2 .1 | Total OM\&A Costs |




## Assumptions

${ }^{1}$ Planned smart meter installations occur evenly throughout the year.
${ }^{2}$ Fiscal calendar year (January 1 to December 31) used.
3 Amortization is done on a striaght line basis and has the "half-year" rule applied.


Net Fixed Assets - Tools and Equipment

Gross Book Value
Opening Balance
Capital Additions during year (from Smart Meter Costs) Retirements/Removals (if applicable)
Closing Balance
Accumulated Depreciation Opening Balance
Amortization expense during year
Retirements/Removals (ff applicable)
Closing Balance
Net Book Value
Opening Balance
Closing Balance
Average Net Book Value
Net Fixed Assets - Other Equipment
Gross Book Value
Opening Balance
Capital Additions during year (from Smart Meter Costs) Retirements/Removals (if applicable)
Closing Balance
Accumulated Depreciation Opening Balance
Amortization expense during year Retirements/Removals (if applicable) Closing Balance

## Net Book Value

Opening Balance
Closing Balance
Average Net Book Value





## PILs Calculation




This worksheet calculates the funding adder revenues
Account 1555-Sub-account Funding Adder Revenues

| Interest Rates | Approved Deferral and Variance Accounts | CWIP |
| :---: | :---: | :---: |
| 2006 Q1 |  |  |
| 2006 Q2 | 4.14\% | 4.68\% |
| 2006 Q3 | 4.59\% | 5.05\% |
| 2006 Q4 | 4.59\% | 4.72\% |
| 2007 Q1 | 4.59\% | 4.72\% |
| 2007 Q2 | 4.59\% | 4.72\% |
| 2007 Q3 | 4.59\% | 5.18\% |
| 2007 Q4 | 5.14\% | 5.18\% |
| 2008 Q1 | 5.14\% | 5.18\% |
| 2008 Q2 | 4.08\% | 5.18\% |
| 2008 Q3 | 3.35\% | 5.43\% |
| 2008 Q4 | 3.35\% | 5.43\% |
| 2009 Q1 | 2.45\% | 6.61\% |
| 2009 Q2 | 1.00\% | 6.61\% |
| 2009 Q3 | 0.55\% | 5.67\% |
| 2009 Q4 | 0.55\% | 4.66\% |
| 2010 Q1 | 0.55\% | 4.34\% |
| 2010 Q2 | 0.55\% | 4.34\% |
| 2010 Q3 | 0.89\% | 4.66\% |
| 2010 Q4 | 1.20\% | 4.01\% |
| 2011 Q1 | 1.47\% | 4.29\% |
| 2011 Q2 | 1.47\% | 4.29\% |
| 2011 Q3 | 1.47\% | 4.29\% |
| 2011 Q4 | 1.47\% | 4.29\% |
| 2012 Q1 | 1.47\% | 4.29\% |
| 2012 Q2 | 1.47\% | 4.29\% |
| 2012 Q3 | 1.47\% | 4.29\% |
| 2012 Q4 |  | 4.29\% |



Opening Balance
Funding Adder (Principal) $\$$
$\$$
$\$$

 Rate Interest $0.00 \%$ \$ $\begin{array}{ll}0.00 \% & \$ \\ 0.00 \% & \$\end{array}$
\$


Account 1555 - Sub-account Funding Adder Revenues

| Interest Rates | Approved Deferral and Variance Accounts | CWIP | Date Jan-12 | Year | Quarter | Opening Balance (Principal) |  | Funding Adder Revenues |  | Interest Rate | Interest |  | Closing Balance |  | Annual amounts |  | Board Approved Smart Meter Funding Adder (from Tariff) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2012 | Q1 | \$ | 887,267.34 | \$ | 30,211.57 | 1.47\% | \$ | 1,086.90 | \$ | 918,565.81 |  |  | \$ | 1.52 |
|  |  |  | Feb-12 | 2012 | Q1 | \$ | 917,478.91 | \$ | 30,180.94 | 1.47\% | \$ | 1,123.91 | \$ | 948,783.76 |  |  | \$ | 1.52 |
|  |  |  | Mar-12 | 2012 | Q1 | \$ | 947,659.85 | \$ | 30,194.74 | 1.47\% | \$ | 1,160.88 | \$ | 979,015.47 |  |  | \$ | 1.52 |
|  |  |  | Apr-12 | 2012 | Q2 | \$ | 977,854.59 | \$ | 50,105.56 | 1.47\% | \$ | 1,197.87 | \$ | 1,029,158.02 |  |  | \$ | 1.52 |
|  |  |  | May-12 | 2012 | Q2 | \$ | 1,027,960.15 | \$ | - | 1.47\% | \$ | 1,259.25 | \$ | 1,029,219.40 |  |  | \$ | - |
|  |  |  | Jun-12 | 2012 | Q2 | \$ | 1,027,960.15 | \$ | - | 1.47\% | \$ | 1,259.25 | \$ | 1,029,219.40 |  |  | \$ | - |
|  |  |  | Jul-12 | 2012 | Q3 | \$ | 1,027,960.15 | \$ | - | 1.47\% | \$ | 1,259.25 | \$ | 1,029,219.40 |  |  | \$ | - |
|  |  |  | Aug-12 | 2012 | Q3 | \$ | 1,027,960.15 | \$ | - | 1.47\% | \$ | 1,259.25 | \$ | 1,029,219.40 |  |  | \$ | - |
|  |  |  | Sep-12 | 2012 | Q3 | \$ | 1,027,960.15 | \$ | - | 1.47\% | \$ | 1,259.25 | \$ | 1,029,219.40 |  |  | \$ | - |
|  |  |  | Oct-12 | 2012 | Q4 | \$ | 1,027,960.15 | \$ | - | 0.00\% | \$ | - | \$ | 1,027,960.15 |  |  | \$ | - |
|  |  |  | Nov-12 | 2012 | Q4 | \$ | 1,027,960.15 |  |  | 0.00\% | \$ | - | \$ | 1,027,960.15 |  |  | \$ | - |
|  |  |  | Dec-12 | 2012 | Q4 | \$ | 1,027,960.15 |  |  | 0.00\% | \$ | - | \$ | 1,027,960.15 | \$ | 151,558.62 | \$ | - |
|  |  |  | tal Fund | ing A | dder Re | ven | collected | \$ | 27,960.15 |  | \$ | 36,700.17 | \$ | 1,064,660.32 | \$ | 1,064,660.32 |  |  |



This worksheet calculates the interest on OM\&A and amortization/depreciation expense, based on monthly data.

| Prescribed Interest Rates | Approved Deferral and Variance Accounts | CWIP | Date | Year | Quarter | Opening Balance (Principal) | OM\&A Expenses | Amortization / Depreciation Expense | Closing Balance (Principal) | (Annual) Interest Rate | Interest (on opening balance) | Cumulative Interest |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 Q1 | 0.00\% | 0.00\% | Jan-06 | 2006 | ar | \$ |  |  | - | 0.00\% | - | - |
| 2006 Q2 | 4.14\% | 4.68\% | Feb-06 | 2006 | Q1 | - |  |  | - | 0.00\% | - | - |
| 2006 Q3 | 4.59\% | 5.05\% | Mar-06 | 2006 | Q1 | - |  |  | - | 0.00\% | - | - |
| 2006 Q4 | 4.59\% | 4.72\% | Apr-06 | 2006 | Q2 | - |  |  | - | 4.14\% | - | - |
| 2007 Q1 | 4.59\% | 4.72\% | May-06 | 2006 | Q2 | - |  |  | - | 4.14\% | - | - |
| 2007 Q2 | 4.59\% | 4.72\% | Jun-06 | 2006 | Q2 | - |  |  | - | 4.14\% | - | - |
| 2007 Q3 | 4.59\% | 5.18\% | Jul-06 | 2006 | Q3 | - |  |  | - | 4.59\% | - | - |
| 2007 Q4 | 5.14\% | 5.18\% | Aug-06 | 2006 | Q3 | - |  |  | - | 4.59\% | - | - |
| 2008 Q1 | 5.14\% | 5.18\% | Sep-06 | 2006 | Q3 | - |  |  | - | 4.59\% | - | - |
| 2008 Q2 | 4.08\% | 5.18\% | Oct-06 | 2006 | 04 | - |  |  | . | 4.59\% | - | - |
| 2008 Q3 | 3.35\% | 5.43\% | Nov-06 | 2006 | 04 | - |  |  | . | 4.59\% | - | - |
| 2008 Q4 | 3.35\% | 5.43\% | Dec-06 | 2006 | 04 | - |  |  | - | 4.59\% | - | - |
| 2009 Q1 | 2.45\% | 6.61\% | Jan-07 | 2007 | Q1 | - |  |  | - | 4.59\% | - | - |
| 2009 Q2 | 1.00\% | 6.61\% | Feb-07 | 2007 | ar | - |  |  | - | 4.59\% | - | - |
| 2009 Q3 | 0.55\% | 5.67\% | Mar-07 | 2007 | Q1 | - |  |  | - | 4.59\% | - | - |
| 2009 Q4 | 0.55\% | 4.66\% | Apr-07 | 2007 | Q2 | - |  |  | - | 4.59\% | - | - |
| 2010 Q1 | 0.55\% | 4.34\% | May-07 | 2007 | Q2 | - |  |  | - | 4.59\% | - | - |
| 2010 Q2 | 0.55\% | 4.34\% | Jun-07 | 2007 | Q2 | - |  |  | - | 4.59\% | - | - |
| 2010 Q3 | 0.89\% | 4.66\% | Jul-07 | 2007 | Q3 | - |  |  | - | 4.59\% | - | - |
| 2010 Q4 | 1.20\% | 4.01\% | Aug-07 | 2007 | Q3 | - |  |  | . | 4.59\% | - | . |
| 2011 Q1 | 1.47\% | 4.29\% | Sep-07 | 2007 | Q3 | - |  |  | - | 4.59\% | - | - |
| 2011 Q2 | 1.47\% | 4.29\% | Oct-07 | 2007 | 04 | - |  |  | - | 5.14\% | - | - |
| 2011 Q3 | 1.47\% | 4.29\% | Nov-07 | 2007 | 04 | - |  |  | . | 5.14\% | - | . |
| 2011 Q4 | 1.47\% | 4.29\% | Dec-07 | 2007 | 04 | - |  |  | - | 5.14\% | - | - |
| 2012 Q1 | 1.47\% | 4.29\% | Jan-08 | 2008 | Q1 | - |  |  | . | 5.14\% | - | - |
| 2012 Q2 | 1.47\% | 4.29\% | Feb-08 | 2008 | Q1 | - |  |  | - | 5.14\% | - | - |
| 2012 Q3 | 1.47\% | 4.29\% | Mar-08 | 2008 | Q1 | - |  |  | - | 5.14\% | - | - |
| 2012 Q4 | 0.00\% | 4.29\% | Apr-08 | 2008 | Q2 | - |  |  | - | 4.08\% | - | - |
|  |  |  | May-08 | 2008 | Q2 | - |  |  | - | 4.08\% | - | - |
|  |  |  | Jun-08 | 2008 | Q2 | - |  |  | - | 4.08\% | - | - |
|  |  |  | Jul-08 | 2008 | Q3 | - |  |  | - | 3.35\% | - | - |
|  |  |  | Aug-08 | 2008 | Q3 | - |  |  | - | 3.35\% | - | - |
|  |  |  | Sep-08 | 2008 | Q3 | - |  |  | . | 3.35\% | - | . |
|  |  |  | Oct-08 | 2008 | Q4 | - |  |  | - | 3.35\% | - | - |
|  |  |  | Nov-08 | 2008 | 04 | - |  |  | - | 3.35\% | - | - |
|  |  |  | Dec-08 | 2008 | Q4 | - |  |  | - | 3.35\% | - | - |
|  |  |  | Jan-09 | 2009 | Q1 | - |  |  | - | 2.45\% | - | - |
|  |  |  | Feb-09 | 2009 | Q1 | - |  |  | - | 2.45\% | - | - |
|  |  |  | Mar-09 | 2009 | Q1 | - |  |  | - | 2.45\% | - | - |
|  |  |  | Apr-09 | 2009 | Q2 | - |  |  | - | 1.00\% | - | - |
|  |  |  | May-09 | 2009 | Q2 | - |  |  | - | 1.00\% | - | - |
|  |  |  | Jun-09 | 2009 | Q2 | - |  |  | - | 1.00\% | - | - |
|  |  |  | Jul-09 | 2009 | Q3 | - |  |  | - | 0.55\% | - | - |
|  |  |  | Aug-09 | 2009 | Q3 | - |  |  | - | 0.55\% | - | - |
|  |  |  | Sep-09 | 2009 | Q3 | - |  |  | - | 0.55\% | - | - |
|  |  |  | Oct-09 | 2009 | Q4 | - |  |  | - | 0.55\% | - | - |
|  |  |  | Nov-09 | 2009 | 04 | - |  |  | - | 0.55\% | - | - |
|  |  |  | Dec-09 | 2009 | 04 | - |  |  | - | 0.55\% | - | - |
|  |  |  | Jan-10 | 2010 | 01 | - |  | \$ 9,665.00 | 9,665.00 | 0.55\% | - | - |
|  |  |  | Feb-10 | 2010 | Q1 | 9,665.00 |  | \$ 9,665.00 | 19,330.00 | 0.55\% | 4.43 | 4.43 |
|  |  |  | Mar-10 | 2010 | Q1 | 19,330.00 | \$ 881.41 | \$ 9,665.00 | 29,876.41 | 0.55\% | 8.86 | 13.29 |
|  |  |  | Apr-10 | 2010 | Q2 | 29,876.41 | -\$ 128.11 | \$ 9,665.00 | 39,413.30 | 0.55\% | 13.69 | 26.98 |
|  |  |  | May-10 | 2010. | Q2 | 39,413.30 | \$ 3,650.73 | \$ 9,665.00 | 52,729.03 | 0.55\% | 18.06 | 45.05 |
|  |  |  | Jun-10 | 2010 | Q2 | 52,729.03 | \$ 2,782.61 | \$ 9,665.00 | 65,176.64 | 0.55\% | 24.17 | 69.21 |
|  |  |  | Jul-10 | 2010 | Q3 | 65,176.64 | \$ 2,607.80 | \$ 9,665.00 | 77,449.44 | 0.89\% | 48.34 | 117.55 |
|  |  |  | Aug-10 | 2010 | Q3 | 77,449.44 | \$ 2,715.01 | \$ 9,665.00 | 89,829.45 | 0.89\% | 57.44 | 175.00 |
|  |  |  | Sep-10 | 2010 | Q3 | 89,829.45 | \$ 2,757.58 | \$ 9,665.00 | 102,252.03 | 0.89\% | 66.62 | 241.62 |
|  |  |  | Oct-10 | 2010 | 04 | 102,252.03 | \$ 5,072.96 | \$ 9,665.00 | 116,989.99 | 1.20\% | 102.25 | 343.87 |
|  |  |  | Nov-10 | 2010 | Q4 | 116,989.99 | \$ 3,655.48 | \$ 9,665.00 | 130,310.47 | 1.20\% | 116.99 | 460.86 |
|  |  |  | Dec-10 | 2010 | Q4 | 130,310.47 | \$ 91,498.21 | \$ 9,665.00 | 231,473.68 | 1.20\% | 130.31 | 591.17 |
|  |  |  | Jan-11 | 2011 | 01 | 231,473.68 | -\$ 5,641.47 | \$ 20,028.00 | 245,860.21 | 1.47\% | 283.56 | 874.73 |
|  |  |  | Feb-11 | 2011 | 01 | 245,860.21 | \$ 10,499.11 | \$ 20,028.00 | 276,387.32 | 1.47\% | 301.18 | 1,175.91 |
|  |  |  | Mar-11 | 2011 | 01 | 276,387.32 | \$ 26,791.59 | \$ 20,028.00 | 323,206.91 | 1.47\% | 338.57 | 1,514.48 |
|  |  |  | Apr-11 | 2011 | Q2 | 323,206.91 | -\$ 789.65 | \$ 20,028.00 | 342,445.26 | 1.47\% | 395.93 | 1,910.41 |
|  |  |  | May-11 | 2011 | Q2 | 342,445.26 | \$ 264.95 | \$ 20,028.00 | 362,738.21 | 1.47\% | 419.50 | 2,329.90 |
|  |  |  | Jun-11 | 2011 | Q2 | 362,738.21 | \$ 458.04 | \$ 20,028.00 | 383,224.25 | 1.47\% | 444.35 | 2,774.26 |
|  |  |  | Jul-11 | 2011 | Q3 | 383,224.25 | \$ 10,757.11 | \$ 20,028.00 | 414,009.36 | 1.47\% | 469.45 | 3,243.71 |
|  |  |  | Aug-11 | 2011 | Q3 | 414,009.36 | \$ 35,084.10 | \$ 20,028.00 | 469,121.46 | 1.47\% | 507.16 | 3,750.87 |
|  |  |  | Sep-11 | 2011 | оз | 469,121.46 | \$ 18,007.97 | \$ 20,028.00 | 507,157.43 | 1.47\% | 574.67 | 4,325.54 |
|  |  |  | Oct-11 | 2011 | 04 | 507,157.43 | \$ 18,517.76 | \$ 20,028.00 | 545,703.19 | 1.47\% | 621.27 | 4,946.81 |
|  |  |  | Nov-11 | 2011 | 04 | 545,703.19 | \$ 5,861.42 | \$ 20,028.00 | 571,592.61 | 1.47\% | 668.49 | 5,615.30 |
|  |  |  | Dec-11 | 2011 | Q4 | 571,592.61 | \$ 69,190.06 | \$ 20,033.00 | 660,815.67 | 1.47\% | 700.20 | 6,315.50 |
|  |  |  | Jan-12 | 2012 | Q1 | 660,815.67 | \$ 10,101.00 | \$ 21,136.00 | 692,052.67 | 1.47\% | 809.50 | 7,125.00 |
|  |  |  | Feb-12 | 2012 | 01 | 692,052.67 | \$ 20,440.01 | \$ 21,136.00 | 733,628.68 | 1.47\% | 847.76 | 7,972.76 |
|  |  |  | Mar-12 | 2012 | Q1 | 733,628.68 | \$ 9,397.00 | \$ 21,136.00 | 764,161.68 | 1.47\% | 898.70 | 8,871.46 |
|  |  |  | Apr-12 | 2012 | Q2 | 764,161.68 | \$ 14,418.00 | \$ 21,136.00 | 799,715.68 | 1.47\% | 936.10 | 9,807.56 |
|  |  |  | May-12 | 2012 | Q2 | 799,715.68 | \$ 20,580.45 | \$ 21,136.00 | 841,432.13 | 1.47\% | 979.65 | 10,787.21 |
|  |  |  | Jun-12 | 2012 | Q2 | 841,432.13 | \$ 31,980.45 | \$ 21,136.00 | 894,548.58 | 1.47\% | 1,030.75 | 11,817.96 |
|  |  |  | Jul-12 | 2012 | Q3 | 894,548.58 | \$ 20,880.45 | \$ 21,136.00 | 936,565.03 | 1.47\% | 1,095.82 | 12,913.78 |
|  |  |  | Aug-12 | 2012 | Q3 | 936,565.03 | \$ 20,880.45 | \$ 21,136.00 | 978,581.48 | 1.47\% | 1,147.29 | 14,061.08 |
|  |  |  | Sep-12 | 2012 | Q3 | 978,581.48 | \$ 20,880.45 | \$ 21,136.00 | 1,020,597.93 | 1.47\% | 1,198.76 | 15,259.84 |
|  |  |  | Oct-12 | 2012 | Q4 | 1,020,597.93 | \$ 20,880.45 | \$ 21,136.00 | 1,062,614.38 | 0.00\% | - | 15,259.84 |



| Dec-12 | 2012 | 04 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

\$ 494,933.38 \$ 567,681.00 \$ 1,062,614.38


# 予 

Smart Meter Model

This worksheet calculates the interest on OM\&A and amortization/depreciation expense, in the absence of monthly data.

|  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  | Average Annual <br> Prescribed Interest |
| Rate for Deferral |  |  |  |  |  |  |$\quad$| Simple Interest on |
| :--- |
| and |



## Appendix E



## 

## Application Contact Information

| Name: | Debbie Reece |
| :---: | :---: |
| Title: | Chief Financial Officer |
| Phone Number: | 519-271-4703 268 |
| Email Address: | dreece@festivalhydro.com |
| We are applying for rates effective: | November 1, 2012 |
| Last COS Re-based Year | 2010 |



INPUT FIELD

We are applying for rates

Last COS Re-based Year 2010

## Copyright

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While this model has been provided in Excel format and is required to be filed with the applications, the onus remains on the applicant to ensure the accuracy of the data and the results. The use of any models and spreadsheets does not automatically imply Board approval. The onus is on the distributor to prepare, document and support its application. Board-issued Excel models and spreadsheets are offered to assist parties in providing the necessary information so as to facilitate an expeditious review of an application. The onus remains on the applicant to ensure the accuracy of the data and the results.


| 1.3 ADVANCED METERING CONTROL COMPUTER (AMCC) | Asset Type | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Forecast |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.3.1 Computer Hardware | Computer Hardware |  |  |  |  | 7,944 |  |  | \$ | 7,944 |
| 1.3.2 Computer Software | Computer Software |  |  |  |  | 12,800 | $\square$ |  | \$ | 12,800 |
| 1.3.3 Computer Software Licences \& Installation (includes hardware and software) (may inlude AS/400 disk space, backup and recovery computer, UPS, etc.) | Computer Software |  | $\square$ | - | $\square$ | 62,751 | - | - | \$ | 62,751 |
| Total Advanced Metering Control Computer (AMCC) |  | \$ | $\underline{ }$ | S | \$ | \$ 83,495 | \$ | $\stackrel{\text { s }}{ }$ | $\stackrel{ }{5}$ | $\underline{83,495}$ |
|  | Asset Type |  |  |  |  |  |  |  |  |  |
| 1.4 WIDE AREA NETWORK (WAN) |  | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Forecast |  |  |
| 1.4.1 Activiation Fees |  |  |  |  |  | $\square$ | $\square$ | $\square$ | \$ | - |
| Total Wide Area Network (WAN) |  |  |  |  |  |  |  |  | \$ |  |
|  | Asset Type |  |  |  |  |  |  |  |  |  |
| 1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY |  | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Forecast |  |  |
| 1.5.1 Customer Equipment (including repair of damaged equipment) |  |  |  |  |  |  |  |  | \$ | - |
| 1.5.2 AMI Interface to CIS | Computer Software |  |  |  |  | 11,509 | 5,387 |  | \$ | 16,896 |
| 1.5.3 Professional Fees | Smart Meter |  |  |  | 6,770 | $\square$ | $\square$ |  | \$ | 6,770 |
| 1.5.4 Integration | Computer Software |  |  |  |  |  | 21,583 |  | \$ | 21,583 |
| 1.5.5 Program Management | Other Equipment |  |  |  |  | 28,734 | 17,305 |  | \$ | 46,039 |
| 1.5.6 Other AMI Capital | Other Equipment |  |  |  | 8 | 22,243 | 42,966 | 12,627 | \$ | 77,845 |
| Total Other AMI Capital Costs Related to Minimum Functionality |  | $\stackrel{ }{\text { S }}$ | $\stackrel{ }{s}$ | $\stackrel{ }{s}$ | ¢ 6,778 | \$ ${ }^{\text {\$ }}$ 62,486 | \$ 87,241 | \$ 12,627 | \$ | 169,133 |
| Total Capital Costs Related to Minimum Functionality |  |  | $\stackrel{ }{\text { s }}$ | s | \% 6,778 | \$ 2,438,756 | \$ 127,416 | \$ ${ }^{\text {\$ }}$ | $\stackrel{ }{\text { s }}$ | 2,588,158 |
|  | Asset Type |  |  |  |  |  |  |  |  |  |
| 1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY <br> (Please provide a descriptive title and identify nature of beyond minimum functionality costs) |  | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Forecast |  |  |
| 1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O . Reg 425/06 | Computer Software |  |  |  |  |  |  |  | \$ | - |
| 1.6.2 Costs for deployment of smart meters to customers other than residential and small general service | Applications Sotware |  |  |  |  |  |  |  | \$ | - |
| 1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc. | Other Equipment |  |  |  |  | 8,677 | 97,972 | 23,729 | \$ | 130,378 |
| Total Capital Costs Beyond Minimum Functionality |  | \$ | S | S | S | \$ 8,677 | \$ 97,972 | \$ 23,729 | S | 130,378 |
| Total Smart Meter Capital Costs |  | \$ | S | S | \$ 6 | \$ 2,447, 434 | \$ 225,387 | \$ 38,936 | $\stackrel{ }{\text { s }}$ | $\underline{2,718,535}$ |

## 2 OM\&A Expenses

2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)
2.1.1 Maintenance (may include meter reverification costs, etc.)
2.1.2 Other (please specifiy) Meter r troubleshooting

Total Incremental AMCD OM\&A Costs
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)
2.2.1 Maintenance
2.2.2 Other (please specifiy)

Total Incremental AMRC OM\&A Costs
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)
2.3.1 Hardware Maintenance (may include severer support, etc.)
2.3.2 Software Maintenance (may include maintenancos support, etc.)
2.3.2 Other (please specifiy) AMCC IT position

Total Incremental AMCC OM\&A Costs

### 2.4 WIDE AREA NETWORK (WAN)

2.4.1 WAN Maintenance
2.4.2 Other (please specifiy) Communication services

## tal Incremental AMRC OM\&A Cos

2.5 OTHER AMI OM\&A COSTS RELATED TO MINIMUM FUNCTIONALITY
2.5.1 Business Process Redesign
2.5.2 Customer Communication (may include project communication, etc.)
2.5.3 Program Management
2.5.4 Change Management (may include training, etc.)
2.5.5 Administration Costs
2.5.6 Other AMI Expenses

Total Other AMI OM\&A Costs Related to Minimum Functionality

## TOTAL OM\&A COSTS RELATED TO MINIMUM FUNCTIONALITY

2.6 OM\&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALIT

Please provide a descripitive title and identity nalure of beyond minimum tunctionality costs)
.6.1 Costs related to technical capabailities in the smart $m$ or that exceed those specified in 0 . Reg 425/06
2.6. 2 Costs for deployment of smart meters to customers other than residentia nd small general service
26.3 Costs for TOU rate implementation, CIS system upgrades, web presentatio integration with the MDM/R, etc.
Total OM\&A Costs Beyond Minimum Functionality
Total Smart Meter OM\&A Costs


| 3.1 .1 | Smart Meter |
| :--- | :--- |
| 3.1 .2 | Computer Hardware |
| 3.1.3 | Computer Software |
| 3.1 .4 | Tools \& Equipment |
| 3.1 .5 | Other Equipment |
| 3.1 .6 | Applications Software |
| 3.1 .7 | Total Capital Costs |
| 3.2 | OM\&A Costs |
| 3.2 .1 | Total OM\&A Costs |




## Assumptions

${ }^{1}$ Planned smart meter installations occur evenly throughout the year.
${ }^{2}$ Fiscal calendar year (January 1 to December 31) used.
3 Amortization is done on a striaght line basis and has the "half-year" rule applied.


Net Fixed Assets - Tools and Equipment

Gross Book Value
Opening Balance
Capital Additions during year (from Smart Meter Costs) Retirements/Removals (if applicable)
Closing Balance
Accumulated Depreciation Opening Balance
Amortization expense during year
Retirements/Removals (if applicable) Closing Balance

Net Book Value
Opening Balance
Closing Balance
Average Net Book Value
Net Fixed Assets - Other Equipment
Gross Book Value
Opening Balance
Capital Additions during year (from Smart Meter Costs) Retirements/Removals (if applicable)
Closing Balance
Accumulated Depreciation Opening Balance
Amortization expense during year Retirements/Removals (ff applicable) Closing Balance

## Net Book Value

Opening Balance
Average Net Book Value



## For PILs Calculation




## PILs Calculation

|  |  | 2006 Audited Actual |  | 2007 Audited Actual |  | 2008 Audited Actual |  | 2009 Audited Actual |  | 2010 Audited Actual |  | 2011 Audited Actual |  | 2012 and later Forecast |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| income tax |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Income | \$ | - | \$ | - | \$ | - | \$ | 127.67 | \$ | 47,283.74 | \$ | 94,716.09 | \$ | 92,066.43 |
| Amortization | \$ | - | \$ | - | \$ | - | \$ | 226.08 | \$ | 91,494.93 | \$ | 194,485.98 | \$ | 208,338.06 |
| CCA - Smart Meters | \$ | - | \$ | - | \$ | - | -\$ | 676.98 | -\$ | 227,295.37 | -\$ | 411,930.55 | -\$ | 333,819.92 |
| CCA - Computers | \$ | - | \$ | - | \$ | - | \$ | - | -\$ | 63,505.57 | -\$ | 76,990.33 | -\$ | 7,416.62 |
| CCA - Applications Software | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| CCA - Other Equipment | \$ | - | \$ | - | \$ | - | -\$ | 0.84 | -\$ | 5,966.96 | -\$ | 26,563.36 | -\$ | 40,710.62 |
| Change in taxable income | \$ | - | \$ | - | \$ | - | - | 324.07 | -\$ | 157,989.22 | \$ | 226,282.17 | - | 81,542.67 |
| Tax Rate (from Sheet 3) |  | 36.12\% |  | 36.12\% |  | 33.50\% |  | 33.00\% |  | 30.29\% |  | 30.29\% |  | 30.29\% |
| Income Taxes Payable | \$ | - | \$ | - | \$ | - | - | 106.94 | -\$ | 47,854.93 | \$ | 68,540.87 | - | 24,699.27 |
| ONTARIO CAPITAL TAX |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Smart Meters | \$ | - | \$ | - | \$ | - | \$ | 6,544.18 | \$ | 2,191,501.88 | \$ | 2,079,168.19 | \$ | 1,927,814.76 |
| Computer Hardware | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 23,481.00 | \$ | 18,263.00 | \$ | 13,045.00 |
| Computer Software (Including Application Software) | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 90,829.02 | \$ | 94,917.36 | \$ | 69,339.23 |
| Tools \& Equipment | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Other Equipment | \$ | - | \$ | - | \$ | - | \$ | 7.95 | \$ | 56,678.96 | \$ | 201,043.79 | \$ | 213,791.45 |
| Rate Base | \$ | - | \$ | - | \$ | - | \$ | 6,552.13 | \$ | 2,362,490.86 | \$ | 2,393,392.34 | \$ | 2,223,990.44 |
| Less: Exemption |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Deemed Taxable Capital | \$ | - | \$ | - | \$ | - | \$ | 6,552.13 | \$ | 2,362,490.86 | \$ | 2,393,392.34 | \$ | 2,223,990.44 |
| Ontario Capital Tax Rate (from Sheet 3) |  | 0.300\% |  | 0.225\% |  | 0.225\% |  | 0.225\% |  | 0.075\% |  | 0.000\% |  | 0.000\% |
| Net Amount (Taxable Capital $\times$ Rate) | \$ | - | \$ | - | \$ | - | \$ | 14.74 | \$ | 1,771.87 | \$ | - | \$ | - |
| Change in Income Taxes Payable | \$ | - | \$ | - | \$ | - | -\$ | 106.94 | -\$ | 47,854.93 | -\$ | 68,540.87 | -\$ | 24,699.27 |
| Change in OCT | \$ | - | \$ | - | \$ | - | \$ | 14.74 | \$ | 1,771.87 | \$ | - | \$ | , |
| PILs | \$ | - | \$ | - | \$ | - | -\$ | 92.20 | -\$ | 46,083.07 | \$ | 68,540.87 | -\$ | 24,699.27 |
| Gross Up PILs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tax Rate |  | 36.12\% |  | 36.12\% |  | 33.50\% |  | 33.00\% |  | 30.29\% |  | 30.29\% |  | 30.29\% |
| Change in Income Taxes Payable | \$ | - | \$ | - | \$ | - | -\$ | 159.62 | -\$ | 68,648.59 | -\$ | 98,322.86 | -\$ | 35,431.46 |
| Change in OCT | \$ | - | \$ | - | \$ | - | \$ | 14.74 | \$ | 1,771.87 | \$ | - | \$ | . |
| PILs | \$ | - | \$ | - | \$ | - | -\$ | 144.88 | -\$ | 66,876.73 | -\$ | 98,322.86 | -\$ | 35,431.46 |



This worksheet calculates the funding adder revenues
Account 1555-Sub-account Funding Adder Revenues

| Interest Rates | Approved Deferral and Variance Accounts | CWIP |
| :---: | :---: | :---: |
| 2006 Q1 |  |  |
| 2006 Q2 | 4.14\% | 4.68\% |
| 2006 Q3 | 4.59\% | 5.05\% |
| 2006 Q4 | 4.59\% | 4.72\% |
| 2007 Q1 | 4.59\% | 4.72\% |
| 2007 Q2 | 4.59\% | 4.72\% |
| 2007 Q3 | 4.59\% | 5.18\% |
| 2007 Q4 | 5.14\% | 5.18\% |
| 2008 Q1 | 5.14\% | 5.18\% |
| 2008 Q2 | 4.08\% | 5.18\% |
| 2008 Q3 | 3.35\% | 5.43\% |
| 2008 Q4 | 3.35\% | 5.43\% |
| 2009 Q1 | 2.45\% | 6.61\% |
| 2009 Q2 | 1.00\% | 6.61\% |
| 2009 Q3 | 0.55\% | 5.67\% |
| 2009 Q4 | 0.55\% | 4.66\% |
| 2010 Q1 | 0.55\% | 4.34\% |
| 2010 Q2 | 0.55\% | 4.34\% |
| 2010 Q3 | 0.89\% | 4.66\% |
| 2010 Q4 | 1.20\% | 4.01\% |
| 2011 Q1 | 1.47\% | 4.29\% |
| 2011 Q2 | 1.47\% | 4.29\% |
| 2011 Q3 | 1.47\% | 4.29\% |
| 2011 Q4 | 1.47\% | 4.29\% |
| 2012 Q1 | 1.47\% | 4.29\% |
| 2012 Q2 | 1.47\% | 4.29\% |
| 2012 Q3 | 1.47\% | 4.29\% |
| 2012 Q4 |  | 4.29\% |



Opening Balance
Funding Adder (Principal) $\begin{array}{ll}\text { Q1 } & \$ \\ \text { Q1 } & \$ \\ \text { Q1 } & \$\end{array}$ $\$$
$\$$
$\$$


|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| - |  |  | 0.00\% | \$ |
| - |  |  | 0.00\% | \$ |
| - |  |  | 0.00\% | \$ |
| - |  |  | 4.14\% | \$ |
| - | \$ | 4,924.94 | 4.14\% | \$ |
| 4,924.94 | \$ | 4,924.94 | 4.14\% | \$ |
| 9,849.88 | \$ | 4,924.94 | 4.59\% | \$ |
| 14,774.82 | \$ | 4,924.94 | 4.59\% | \$ |
| 19,699.76 | \$ | 4,924.94 | 4.59\% | \$ |
| 24,624.70 | \$ | 4,924.94 | 4.59\% | \$ |
| 29,549.64 | \$ | 4,924.94 | 4.59\% | \$ |
| 34,474.58 | \$ | 4,924.94 | 4.59\% | \$ |
| 39,399.52 | \$ | 4,781.93 | 4.59\% | \$ |
| 44,181.45 | \$ | 4,781.93 | 4.59\% | \$ |
| 48,963.39 | \$ | 4,781.93 | 4.59\% | \$ |
| 53,745.32 | \$ | 4,781.93 | 4.59\% | \$ |
| 58,527.26 | \$ | 4,781.93 | 4.59\% | \$ |
| 63,309.19 | \$ | 4,781.93 | 4.59\% | \$ |
| 68,091.13 | \$ | 4,781.93 | 4.59\% | \$ |
| 72,873.06 | \$ | 4,781.93 | 4.59\% | \$ |
| 77,654.99 | \$ | 4,781.93 | 4.59\% | \$ |
| 82,436.93 | \$ | 4,781.93 | 5.14\% | \$ |
| 87,218.86 | \$ | 4,781.93 | 5.14\% | \$ |
| 92,000.80 | \$ | 4,781.93 | 5.14\% | \$ |
| 96,782.73 | \$ | 4,502.44 | 5.14\% | \$ |
| 101,285.17 | \$ | 4,502.44 | 5.14\% | \$ |
| 105,787.61 | \$ | 4,502.44 | 5.14\% | \$ |
| 110,290.04 | \$ | 4,502.44 | 4.08\% | \$ |
| 114,792.48 | \$ | 4,502.44 | 4.08\% | \$ |
| 119,294.92 | \$ | 4,502.44 | 4.08\% | \$ |
| 123,797.36 | \$ | 4,502.44 | 3.35\% | \$ |
| 128,299.79 | \$ | 4,502.44 | 3.35\% | \$ |
| 132,802.23 | \$ | 4,502.44 | 3.35\% | \$ |
| 137,304.67 | \$ | 4,502.44 | 3.35\% | \$ |
| 141,807.11 | \$ | 4,502.44 | 3.35\% | \$ |
| 146,309.54 | \$ | 4,502.44 | 3.35\% | \$ |
| 150,811.98 | \$ | 13,140.28 | 2.45\% | \$ |
| 163,952.26 | \$ | 13,140.28 | 2.45\% | \$ |
| 177,092.54 | \$ | 13,140.28 | 2.45\% | \$ |
| 190,232.82 | \$ | 13,140.28 | 1.00\% | \$ |
| 203,373.10 | \$ | 13,140.28 | 1.00\% | \$ |
| 216,513.38 | \$ | 13,140.28 | 1.00\% | \$ |
| 229,653.66 | \$ | 13,140.28 | 0.55\% | \$ |
| 242,793.93 | \$ | 13,140.28 | 0.55\% | \$ |
| 255,934.21 | \$ | 13,140.28 | 0.55\% | \$ |
| 269,074.49 | \$ | 13,140.28 | 0.55\% | \$ |
| 282,214.77 | \$ | 13,140.28 | 0.55\% | \$ |
| 295,355.05 | \$ | 13,140.28 | 0.55\% | \$ |
| 308,495.33 | \$ | 17,557.96 | 0.55\% | \$ |
| 326,053.29 | \$ | 17,557.96 | 0.55\% | \$ |
| 343,611.24 | \$ | 17,557.96 | 0.55\% | \$ |
| 361,169.20 | \$ | 17,557.96 | 0.55\% | \$ |
| 378,727.16 | \$ | 17,557.96 | 0.55\% | \$ |
| 396,285.11 | \$ | 17,557.96 | 0.55\% | \$ |
| 413,843.07 | \$ | 17,557.96 | 0.89\% | \$ |
| 431,401.03 | \$ | 17,557.96 | 0.89\% | \$ |
| 448,958.98 | \$ | 17,557.96 | 0.89\% | \$ |
| 466,516.94 | \$ | 17,557.96 | 1.20\% | \$ |
| 484,074.90 | \$ | 17,557.96 | 1.20\% | \$ |
| 501,632.85 | \$ | 17,557.96 | 1.20\% | \$ |
| 519,190.81 | \$ | 23,110.01 | 1.47\% | \$ |
| 542,300.82 | \$ | 23,110.01 | 1.47\% | \$ |
| 565,410.82 | \$ | 23,110.01 | 1.47\% | \$ |
| 588,520.83 | \$ | 23,110.01 | 1.47\% | \$ |
| 611,630.83 | \$ | 23,110.01 | 1.47\% | \$ |
| 634,740.84 | \$ | 23,110.01 | 1.47\% | \$ |
| 657,850.84 | \$ | 23,110.01 | 1.47\% | \$ |
| 680,960.85 | \$ | 23,110.01 | 1.47\% | , |
| 704,070.85 | \$ | 23,110.01 | 1.47\% | \$ |
| 727,180.86 | \$ | 23,110.01 | 1.47\% | \$ |
| 750,290.86 | \$ | 23,110.01 | 1.47\% | \$ |
| 773,400.87 | \$ | 23,110.01 | 1.47\% | \$ |


| 10 |  |
| :--- | :--- |
| $0.00 \%$ | $\$$ |
| $0.00 \%$ | $\$$ |
| $0.00 \%$ | $\$$ |
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Interest Closi

Board Approved Smart Meter Funding

| - | \$ | - |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | \$ | - |  |  |  |  |
| - | \$ | - |  |  |  |  |
| - | \$ | - |  |  |  |  |
| - | \$ | 4,924.94 |  |  | \$ | 0.31 |
| 16.99 | \$ | 9,866.87 |  |  | \$ | 0.31 |
| 37.68 | \$ | 14,812.50 |  |  | \$ | 0.31 |
| 56.51 | \$ | 19,756.27 |  |  | \$ | 0.31 |
| 75.35 | \$ | 24,700.05 |  |  | \$ | 0.31 |
| 94.19 | \$ | 29,643.83 |  |  | \$ | 0.31 |
| 113.03 | \$ | 34,587.61 |  |  | \$ | 0.31 |
| 131.87 | \$ | 39,531.39 | \$ | 39,925.14 | \$ | 0.31 |
| 150.70 | \$ | 44,332.15 |  |  | \$ | 0.31 |
| 168.99 | \$ | 49,132.38 |  |  | \$ | 0.31 |
| 187.28 | \$ | 53,932.60 |  |  | \$ | 0.31 |
| 205.58 | \$ | 58,732.84 |  |  | \$ | 0.31 |
| 223.87 | \$ | 63,533.06 |  |  | \$ | 0.26 |
| 242.16 | \$ | 68,333.29 |  |  | \$ | 0.26 |
| 260.45 | \$ | 73,133.51 |  |  | \$ | 0.26 |
| 278.74 | \$ | 77,933.73 |  |  | \$ | 0.26 |
| 297.03 | \$ | 82,733.96 |  |  | \$ | 0.26 |
| 353.10 | \$ | 87,571.96 |  |  | \$ | 0.26 |
| 373.59 | \$ | 92,374.39 |  |  | \$ | 0.26 |
| 394.07 | \$ | 97,176.80 | \$ | 60,518.77 | \$ | 0.26 |
| 414.55 | \$ | 101,699.72 |  |  | \$ | 0.26 |
| 433.84 | \$ | 106,221.45 |  |  | \$ | 0.26 |
| 453.12 | \$ | 110,743.16 |  |  | \$ | 0.26 |
| 374.99 | \$ | 115,167.47 |  |  | \$ | 0.26 |
| 390.29 | \$ | 119,685.21 |  |  | \$ | 1.00 |
| 405.60 | \$ | 124,202.96 |  |  | \$ | 1.00 |
| 345.60 | \$ | 128,645.39 |  |  | \$ | 1.00 |
| 358.17 | \$ | 133,160.40 |  |  | \$ | 1.00 |
| 370.74 | \$ | 137,675.41 |  |  | \$ | 1.00 |
| 383.31 | \$ | 142,190.42 |  |  | \$ | 1.00 |
| 395.88 | \$ | 146,705.42 |  |  | \$ | 1.00 |
| 408.45 | \$ | 151,220.43 | \$ | 58,763.79 | \$ | 1.00 |
| 307.91 | \$ | 164,260.17 |  |  | \$ | 1.00 |
| 334.74 | \$ | 177,427.28 |  |  | \$ | 1.00 |
| 361.56 | \$ | 190,594.38 |  |  | \$ | 1.00 |
| 158.53 | \$ | 203,531.63 |  |  | \$ | 1.00 |
| 169.48 | \$ | 216,682.86 |  |  | \$ | 1.00 |
| 180.43 | \$ | 229,834.09 |  |  | \$ | 1.00 |
| 105.26 | \$ | 242,899.19 |  |  | \$ | 1.00 |
| 111.28 | \$ | 256,045.49 |  |  | \$ | 1.00 |
| 117.30 | \$ | 269,191.79 |  |  | \$ | 1.00 |
| 123.33 | \$ | 282,338.10 |  |  | \$ | 1.00 |
| 129.35 | \$ | 295,484.40 |  |  | \$ | 1.00 |
| 135.37 | \$ | 308,630.70 | \$ | 159,917.89 | \$ | 1.00 |
| 141.39 | \$ | 326,194.68 |  |  | \$ | 1.00 |
| 149.44 | \$ | 343,760.68 |  |  | \$ | 1.00 |
| 157.49 | \$ | 361,326.69 |  |  | \$ | 1.00 |
| 165.54 | \$ | 378,892.70 |  |  | \$ | 1.00 |
| 173.58 | \$ | 396,458.69 |  |  | \$ | 1.00 |
| 181.63 | \$ | 414,024.70 |  |  | \$ | 1.00 |
| 306.93 | \$ | 431,707.96 |  |  | \$ | 1.00 |
| 319.96 | \$ | 449,278.94 |  |  | \$ | 1.00 |
| 332.98 | \$ | 466,849.92 |  |  | \$ | 1.00 |
| 466.52 | \$ | 484,541.42 |  |  | \$ | 1.00 |
| 484.07 | \$ | 502,116.92 |  |  | \$ | 1.00 |
| 501.63 | \$ | 519,692.44 | \$ | 214,076.64 | \$ | 1.00 |
| 636.01 | \$ | 542,936.83 |  |  | \$ | 1.00 |
| 664.32 | \$ | 566,075.14 |  |  | \$ | 1.00 |
| 692.63 | \$ | 589,213.46 |  |  | \$ | 1.00 |
| 720.94 | \$ | 612,351.77 |  |  | \$ | 1.00 |
| 749.25 | \$ | 635,490.09 |  |  | \$ | 1.52 |
| 777.56 | \$ | 658,628.40 |  |  | \$ | 1.52 |
| 805.87 | \$ | 681,766.72 |  |  | \$ | 1.52 |
| 834.18 | \$ | 704,905.03 |  |  | \$ | 1.52 |
| 862.49 | \$ | 728,043.35 |  |  | \$ | 1.52 |
| 890.80 | \$ | 751,181.66 |  |  | \$ | 1.52 |
| 919.11 | \$ | 774,319.98 |  |  | \$ | 1.52 |
| 947.42 | \$ | 797,458.29 | \$ | 286,820.64 | \$ | 1.52 |



Account 1555-Sub-account Funding Adder Revenues



This worksheet calculates the interest on OM\&A and amortization/depreciation expense, based on monthly data.

 $0.00 \%$ 12,057.81 12,057.81
\$ 409,486.57 \$ 407,845.00 \$ 817,331.57


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Smart Meter Model

This worksheet calculates the interest on OM\&A and amortization/depreciation expense, in the absence of monthly data.

|  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  | Average Annual <br> Prescribed Interest |
| Rate for Deferral |  |  |  |  |  |  |$\quad$| Simple Interest on |
| :--- |
| and |



## Appendix F



## 

## Application Contact Information

| Name: | Debbie Reece |
| :---: | :---: |
| Title: | Chief Financial Officer |
| Phone Number: | 519-271-4703 268 |
| Email Address: | dreece@festivalhydro.com |
| We are applying for rates effective: | November 1, 2012 |
| Last COS Re-based Year | 2010 |



INPUT FIELD

We are applying for rates

Last COS Re-based Year 2010

## Copyright

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While this model has been provided in Excel format and is required to be filed with the applications, the onus remains on the applicant to ensure the accuracy of the data and the results. The use of any models and spreadsheets does not automatically imply Board approval. The onus is on the distributor to prepare, document and support its application. Board-issued Excel models and spreadsheets are offered to assist parties in providing the necessary information so as to facilitate an expeditious review of an application. The onus remains on the applicant to ensure the accuracy of the data and the results.


| 1.3 ADVANCED METERING CONTROL COMPUTER (AMCC) | Asset Type | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Forecast |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.3.1 Computer Hardware | Computer Hardware |  |  |  |  | 900 | $\square$ |  | \$ | 900 |
| 1.3.2 Computer Software | Computer Software |  |  |  | $\square$ | 1,450 | $\square$ | $\square$ | \$ | 1,450 |
| 1.3.3 Computer Software Licences \& Installation (includes hardware and software) (may include AS/400 disk space, backup and recovery computer, UPS, etc.) | Computer Software | - | $\square$ | $\square$ | - | 7,107 | $\square$ | - | \$ | 7,107 |
| Total Advanced Metering Control Computer (AMCC) |  | $\stackrel{ }{\text { S }}$ | $\stackrel{ }{\text { s }}$ | $\stackrel{ }{\text { s }}$ | $\stackrel{ }{\text { s }}$ | \% 9,457 | $\stackrel{ }{\text { s }}$ | $\stackrel{ }{\text { s }}$ | \$ | 9,457 |
| Asset Type |  |  |  |  |  |  |  |  |  |  |
| 1.4 WIDE AREA NETWORK (WAN) |  | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Forecast |  |  |
| 1.4.1 Activiation Fees |  |  |  |  | $\square$ | - | $\square$ | $\square$ | \$ |  |
| Total Wide Area Network (WAN) |  | \$ | $\stackrel{\text { s }}{ }$ | $\stackrel{\text { s }}{ }$ | $\stackrel{ }{\text { S }}$ | \$ | \$ | \$ | \$ |  |
| Asset Type |  |  |  |  |  |  |  |  |  |  |
| 1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY |  | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Forecast |  |  |
| 1.5.1 Customer Equipment (including repair of damaged equipment) |  |  |  |  |  |  |  |  | \$ |  |
| 1.5.2 AMI Interface to CIS | Computer Software |  |  |  | $\square$ | 1,303 | -610 | $\square$ | \$ | 1,913 |
| 1.5.3 Professional Fees | Smart Meter |  |  |  | -767 | $\square$ | $\square$ | $\square$ | \$ | 767 |
| 1.5.4 Integration | Computer Software |  |  |  | $\square$ | $\square$ | 2,444 | $\square$ | \$ | 2,444 |
| 1.5.5 Program Management | Other Equipment |  |  |  |  | 3,253 | 1,961 |  | \$ | 5,214 |
| 1.5.6 Other AMI Capital | Other Equipment |  |  |  | 1 | 2,518 | 4,864 | 1,433 | \$ | 8,816 |
| Total Other AMI Capital Costs Related to Minimum Functionality |  | \$ | \$ | S | \$ 768 | \$ $\quad 7.074$ | \$ 9,880 | \$ 1,433 | \$ | 19,155 |
| Total Capital Costs Related to Minimum Functionality |  | \$ | \$ | \$ | \$ 768 | \$ 1,011,544 | \$ 38.745 | - ${ }^{-1}$ | \$ | $1,050,650$ |
| Asset Type |  |  |  |  |  |  |  |  |  |  |
| 1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY (Please provide a descriptive title and identify nature of beyond minimum tunctionality costs) |  | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Audited Actual | Forecast |  |  |
| 1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06 | Computer Software |  |  |  |  |  |  |  | \$ |  |
| 1.6.2 Costs for deployment of smart meters to customers other than residential and small general service | Applications Sotware |  |  |  |  |  |  |  | \$ | - |
| 1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc. | Other Equipment |  |  |  |  | 982 | 11,092 | 2,689 | \$ | 14,763 |
| Total Capital Costs Beyond Minimum Functionality |  | \$ | $\stackrel{ }{\text { s }}$ | $\stackrel{5}{5}$ | $\stackrel{ }{\$}$ | \$ 982 | \$ 11,092 | \$ ${ }^{\text {S }}$, 689 | \$ | 14,763 |
| Total Smart Meter Capital Costs |  | \$ | \$ | \$ | \$ 768 | \$ 1,012,526 | $\$ \quad 49,837$ | \$ ${ }^{\text {S }}$, 282 | $\stackrel{ }{\text { S }}$ | 1,065,413 |

## 2 OM\&A Expenses

2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)
2.1.1 Maintenance (may include meter reverification costs, etc.)
2.1.2 Other (please specifiy) Meter r troubleshooting

Total Incremental AMCD OM\&A Costs
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)
2.2.1 Maintenance
2.2.2 Other (please specifiy)

Total Incremental AMRC OM\&A Costs
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)
2.3.1 Hardware Maintenance (may include severer support, etc.)
2.3.2 Software Maintenance (may include maintenancos support, et.).
2.3.2 Other (please specifiy) AMCC IT position

Total Incremental AMCC OM\&A Costs

### 2.4 WIDE AREA NETWORK (WAN)

2.4.1 WAN Maintenance
2.4.2 Other (please specifiy) Communication services

## tal Incremental AMRC OM\&A Cos

2.5 OTHER AMI OM\&A COSTS RELATED TO MINIMUM FUNCTIONALITY
2.5.1 Business Process Redesign
2.5.2 Customer Communication (may include project communication, etc.)
2.5.3 Program Management
2.5.4 Change Management (may include training, etc.)
2.5.5 Administration Costs
2.5.6 Other AMI Expenses

Total Other AMI OM\&A Costs Related to Minimum Functionality

## TOTAL OM\&A COSTS RELATED TO MINMUM FUNCTIONALTY

2.6 OM\&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALIT

Please provide a descripitive title and identity nature of beyond minimum tunctionality costs)
.6.1 Costs related to technical capabilities in the smart that exceed those specified in 0 . Reg 425/06
2.6. 2 Costs for deployment of smart meters to customers other than residentia nd small general service
26.3 Costs for TOU rate implementation, CIS system upgrades, web presentatio integration with the MDM/R, etc.

Total OM\&A Costs Beyond Minimum Functionality
Total Smart Meter OM\&A Costs


| 3.1 .1 | Smart Meter |
| :--- | :--- |
| 3.1 .2 | Computer Hardware |
| 3.1 .3 | Computer Software |
| 3.1 .4 | Tools \& Equipment |
| 3.1 .5 | Other Equipment |
| 3.1 .6 | Applications Software |
| 3.1 .7 | Total Capital Costs |
| 3.2 | OM\&A Costs |
| 3.2 .1 | Total OM\&A Costs |




## Assumptions

${ }^{1}$ Planned smart meter installations occur evenly throughout the year.
${ }^{2}$ Fiscal calendar year (January 1 to December 31) used.
3 Amortization is done on a striaght line basis and has the "half-year" rule applied.


Net Fixed Assets - Tools and Equipment

Gross Book Value
Opening Balance
Capital Additions during year (from Smart Meter Costs) Retirements/Removals (if applicable)
Closing Balance
Accumulated Depreciation Opening Balance
Amortization expense during year
Retirements/Removals (if applicable) Closing Balance

Net Book Value
Opening Balance
Closing Balance
Average Net Book Value
Net Fixed Assets - Other Equipment
Gross Book Value
Opening Balance
Capital Additions during year (from Smart Meter Costs) Retirements/Removals (if applicable) Closing Balance

Accumulated Depreciation Opening Balance
Amortization expense during year Retirements/Removals (if applicable) Closing Balance

## Net Book Value

Opening Balance
Closing Balance
Average Net Book Value





## PILs Calculation




This worksheet calculates the funding adder revenues.
Account 1555-Sub-account Funding Adder Revenues

| Interest Rates | Approved Deferral and Variance Accounts | CWIP |
| :---: | :---: | :---: |
| 2006 Q1 |  |  |
| 2006 Q2 | 4.14\% | 4.68\% |
| 2006 Q3 | 4.59\% | 5.05\% |
| 2006 Q4 | 4.59\% | 4.72\% |
| 2007 Q1 | 4.59\% | 4.72\% |
| 2007 Q2 | 4.59\% | 4.72\% |
| 2007 Q3 | 4.59\% | 5.18\% |
| 2007 Q4 | 5.14\% | 5.18\% |
| 2008 Q1 | 5.14\% | 5.18\% |
| 2008 Q2 | 4.08\% | 5.18\% |
| 2008 Q3 | 3.35\% | 5.43\% |
| 2008 Q4 | 3.35\% | 5.43\% |
| 2009 Q1 | 2.45\% | 6.61\% |
| 2009 Q2 | 1.00\% | 6.61\% |
| 2009 Q3 | 0.55\% | 5.67\% |
| 2009 Q4 | 0.55\% | 4.66\% |
| 2010 Q1 | 0.55\% | 4.34\% |
| 2010 Q2 | 0.55\% | 4.34\% |
| 2010 Q3 | 0.89\% | 4.66\% |
| 2010 Q4 | 1.20\% | 4.01\% |
| 2011 Q1 | 1.47\% | 4.29\% |
| 2011 Q2 | 1.47\% | 4.29\% |
| 2011 Q3 | 1.47\% | 4.29\% |
| 2011 Q4 | 1.47\% | 4.29\% |
| 2012 Q1 | 1.47\% | 4.29\% |
| 2012 Q2 | 1.47\% | 4.29\% |
| 2012 Q3 | 1.47\% | 4.29\% |
| 2012 Q4 |  | 4.29\% |

 Opening Balan Funding Adder Revenues \$


| Interest | Closing Balance | Annual amounts | Smart Meter Funding Adder (from Tariff) |
| :---: | :---: | :---: | :---: |
| - | \$ |  |  |
| - | \$ |  |  |
| - | \$ |  |  |
| - | \$ |  |  |
| - | \$ 582.27 |  | \$ 0.31 |
| 2.01 | \$ 1,166.55 |  | \$ 0.31 |
| 4.45 | \$ 1,751.26 |  | \$ 0.31 |
| 6.68 | \$ 2,335.76 |  | \$ 0.31 |
| 8.91 | \$ 2,920.25 |  | \$ 0.31 |
| 11.14 | \$ 3,504.75 |  | \$ 0.31 |
| 13.36 | \$ 4,089.24 |  | \$ 0.31 |
| 15.59 | \$ 4,673.74 | \$ 4,720.29 | \$ 0.31 |
| 17.82 | \$ 5,231.50 |  | \$ 0.31 |
| 19.94 | \$ 5,789.16 |  | \$ 0.31 |
| 22.07 | \$ 6,346.82 |  | \$ 0.31 |
| 24.19 | \$ 6,904.47 |  | \$ 0.31 |
| 26.32 | \$ 7,462.13 |  | \$ 0.26 |
| 28.44 | \$ 8,019.79 |  | \$ 0.26 |
| 30.57 | \$ 8,577.45 |  | \$ 0.26 |
| 32.69 | \$ 9,135.10 |  | \$ 0.26 |
| 34.82 | \$ 9,692.76 |  | \$ 0.26 |
| 41.37 | \$ 10,254.85 |  | \$ 0.26 |
| 43.75 | \$ 10,812.76 |  | \$ 0.26 |
| 46.13 | \$ 11,370.67 | \$ 7,034.50 | \$ 0.26 |
| 48.51 | \$ 11,891.89 |  | \$ 0.26 |
| 50.73 | \$ 12,412.94 |  | \$ 0.26 |
| 52.95 | \$ 12,934.00 |  | \$ 0.26 |
| 43.80 | \$ 13,443.68 |  | \$ 0.26 |
| 45.56 | \$ 13,964.28 |  | \$ 1.00 |
| 47.32 | \$ 14,484.88 |  | \$ 1.00 |
| 40.30 | \$ 14,996.69 |  | \$ 1.00 |
| 41.75 | \$ 15,516.98 |  | \$ 1.00 |
| 43.20 | \$ 16,037.26 |  | \$ 1.00 |
| 44.65 | \$ 16,557.55 |  | \$ 1.00 |
| 46.10 | \$ 17,077.83 |  | \$ 1.00 |
| 47.55 | \$ 17,598.12 | \$ 6,778.45 | \$ 1.00 |
| 35.83 | \$ 19,095.67 |  | \$ 1.00 |
| 38.91 | \$ 20,608.02 |  | \$ 1.00 |
| 42.00 | \$ 22,120.38 |  | \$ 1.00 |
| 18.40 | \$ 23,606.05 |  | \$ 1.00 |
| 19.66 | \$ 25,116.58 |  | \$ 1.00 |
| 20.91 | \$ 26,627.10 |  | \$ 1.00 |
| 12.19 | \$ 28,127.64 |  | \$ 1.00 |
| 12.89 | \$ 29,637.61 |  | \$ 1.00 |
| 13.58 | \$ 31,147.57 |  | \$ 1.00 |
| 14.27 | \$ 32,657.53 |  | \$ 1.00 |
| 14.96 | \$ 34,167.49 |  | \$ 1.00 |
| 15.65 | \$ 35,677.45 | \$ 18,370.48 | \$ 1.00 |
| 16.34 | \$ 37,668.36 |  | \$ 1.00 |
| 17.26 | \$ 39,659.50 |  | \$ 1.00 |
| 18.17 | \$ 41,650.63 |  | \$ 1.00 |
| 19.08 | \$ 43,641.76 |  | \$ 1.00 |
| 19.99 | \$ 45,632.89 |  | \$ 1.00 |
| 20.91 | \$ 47,624.04 |  | \$ 1.00 |
| 35.31 | \$ 49,628.66 |  | \$ 1.00 |
| 36.78 | \$ 51,620.35 |  | \$ 1.00 |
| 38.26 | \$ 53,612.05 |  | \$ 1.00 |
| 53.57 | \$ 55,617.58 |  | \$ 1.00 |
| 55.56 | \$ 57,609.79 |  | \$ 1.00 |
| 57.55 | \$ 59,602.00 | \$ 24,271.43 | \$ 1.00 |
| 72.94 | \$ 62,218.38 |  | \$ 1.00 |
| 76.13 | \$ 64,822.57 |  | \$ 1.00 |
| 79.31 | \$ 67,426.74 |  | \$ 1.00 |
| 82.50 | \$ 70,030.92 |  | \$ 1.00 |
| 85.69 | \$ 72,635.11 |  | \$ 1.52 |
| 88.87 | \$ 75,239.28 |  | \$ 1.52 |
| 92.06 | \$ 77,843.46 |  | \$ 1.52 |
| 95.25 | \$ 80,447.65 |  | \$ 1.52 |
| 98.43 | \$ 83,051.82 |  | \$ 1.52 |
| 101.62 | \$ 85,656.00 |  | \$ 1.52 |
| 104.80 | \$ 88,260.18 |  | \$ 1.52 |
| 107.99 | \$ 90,864.36 | \$ 32,297.51 | \$ 1.52 |



Account 1555-Sub-account Funding Adder Revenues



This worksheet calculates the interest on OM\&A and amortization/depreciation expense, based on monthly data.



\$ $46,359.71 \quad \$ \quad 159,836.00 \quad \$ \quad 206,195.71$


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Smart Meter Model

This worksheet calculates the interest on OM\&A and amortization/depreciation expense, in the absence of monthly data.



