

for SMDR and SMIRR are reflected in this Application under the titles Smart Meter Disposition (SMDR) and Smart Meter Incremental Rate Rider (SMIRR).

The monthly bill impacts based on the proposed SMDR and the SMIRR, are for Residential class (typical 800 kWh per month) net increase of \$1.52 or 1.45%, and for GS < 50 kW class (typical 2,000 kWh per month) net increase of \$3.34 or 1.29%. These impacts have been determined by the introduction of the proposed SMDR and SMIRR rates to the proposed rates that have been applied for in London Hydro’s 2012 IRM rate application (EB-2011-0181). The impacts are discussed further in this Application under the title Rate Change Summary and Bill Impacts.

In proceeding with this Application, London Hydro is aware that in the Model there is a note that states, “The Board expects that the majority (I.e. 90% or more) of costs for which the distributor is seeking recovery will be audited”. In regard to Table 1 below, London Hydro confirms that all costs submitted for recovery have been audited and included in our financial statements for the year-ended December 31, 2011.

Table 1 – Calculation of Total Costs Seeking Recovery to Total Costs That Have Been Audited

Year	OM&A	Capital	Total	Cumulative	Audited Y/N	% of Cumulative Costs Audited
2006			0	0	Y	100.0%
2007	5,998		5,998	5,998	Y	100.0%
2008	101,711		101,711	107,709	Y	100.0%
2009	113,349	4,999,448	5,112,797	5,220,506	Y	100.0%
2010	422,882	16,262,194	16,685,077	21,905,582	Y	100.0%
2011	162,771	3,141,854	3,304,625	25,210,207	Y	100.0%
2012	746,000	511,307	1,257,307	26,467,514	N	

London Hydro requests these expenditures be considered final. Model notes also identify that “a distributor may also include historical costs that are not audited and estimated costs, corresponding to a stub period or to a forecast for the test rate year”.

London Hydro respectfully requests that as 100% of expenditures (total audited costs up to end of Year 2011, in the amount of \$25,210,207 compared to total cumulative costs up to end Year 2011, in the amount of \$25,210,207) that the Board proceed with this applicant’s request to undertake a prudence review and approve cost recovery of smart meter costs to December 31, 2011.

Status of the Smart Meter Program

London Hydro installed a total of 7,467 smart meters up to December 31, 2009. The capital costs totalled \$1,905,548. The mass deployment of smart meters incurred in 2010 with 129,970 meters installed with capital expenditures in 2010 of \$13,826,064. By the end of 2011, the total number of smart meters installed in the London Hydro service territory was 146,437 (134,658 Residential meters and 11,779 GS < 50 kW meters). This represents London Hydro achieving installation completion figures of 99.96% of our Residential class customers and 98.47% of our General Service < 50 kW class customers.

Although London Hydro has completed its mass deployment of Smart Meters, there remains a small number of smart meters pending installation. The main reasons for the small number of

9.4 Determination of Smart-Meter Disposition Rider

London Hydro is seeking approval of the Smart Meter costs in this Application and the transfer of the approved amounts from the Smart Meter deferral accounts to the required fixed asset, revenue, and expense accounts. Also being requested for approval is a Smart Meter Disposition Rate Rider that reconciles the Revenue Requirement for commencement of the Smart Meter Program through to December 31, 2011 compared to Smart Meter Funding Adder revenues collected from April 1st, 2006 to April 30th, 2012.

The Total Revenue Requirement and Smart Meter true-up for both SMDR and SMIRR are reflected in Table 9-8 below. These calculations are sourced from the Smart Meter Model V 2.17, as filed in Appendix A. London Hydro confirms that the Model has been completed in accordance with the instructions in Ontario Energy Board publication: G-2011-0001, *Guideline: Smart Meter Funding and Cost Recovery – Final Disposition* [Ref 1].

Table 9-8, Smart Meter True-up

Smart Meter True-up	SMDR Amount	SMIRR Amount
Revenue Requirement 2006	\$ -	
Revenue Requirement 2007	\$ 6,089	
Revenue Requirement 2008	\$ 104,104	
Revenue Requirement 2009	\$ 285,369	
Revenue Requirement 2010	\$ 1,715,709	
Revenue Requirement 2011	\$ 3,242,112	
Revenue Requirement 2012	\$ -	\$ 4,431,525
Total Revenue Requirement	\$ 5,353,383	\$ 4,431,525
Smart Meter Rate Adder Revenues	\$ (6,705,705)	
Carrying Charge	\$ (212,586)	
Smart Meter True-up	\$ (1,564,908)	\$ 4,431,525

London Hydro is proposing that the Smart Meter True-up of (\$1,564,908) be dispersed to both Residential and GS < 50 kW customer classes, as each of these classes were involved with the Smart Meter installations. To provide for an allocation of the Smart Meter True-up to each customer class, London Hydro is proposing to utilize a similar approach as was approved by the Board’s Decision and Order in PowerStream’s 2010 Smart Meter Application (EB-2010-0209).

The Total Revenue Requirement has been allocated to each customer class on the basis of the following:

- Return (deemed interest plus return on equity) and Amortization allocated between the customer classes based on the capital costs of the meters installed for each class,
- OM&A expenses allocated on the basis of the number of meters installed for each class,
- PILs allocated based on the revenue requirement allocated to each class before PILs.

As reflected in Table 9-9 below, the average cost of installing the smart meters for each customer class has been calculated to be \$100.84 for Residential customer class and \$250.86 for the GS < 50 kW customer class. This has provided an allocation factor of 82.13% for Residential customer class and 17.87% for the GS < 50 kW customer class to permit allocation of Returns and Amortization Amounts. Allocation by meters installed have resulted in an allocation factor of 91.96% for Residential customer class and 8.04% for the GS < 50 kW customer class to permit allocation of OM&A Amounts. In regards to allocation of PILS the Total Before PILS derives an allocation factor of 83.42% for Residential customer class and 16.58% for the GS < 50 kW customer class. After deductions of the Smart Meter Rate Adder Revenues of \$6,705,705 and Carrying Charge of \$212,586 from the Total Revenue Requirement Allocated, the Smart Meter True-up for Residential customer class is (\$1,305,441) and for the GS < 50 kW customer class (\$259,467).

Table 9-9, Smart Meter Disposition Rate (SMDR) Rider by Rate Class

Smart Meter Disposition Rate (SMDR) Rider by Rate Class			
	Residential	GS < 50 kW	Total
Allocation Factors			
Average Smart Meter Unit Cost	\$ 100.84	\$ 250.86	
Smart Meter Cost	\$ 13,578,913	\$ 2,954,880	\$ 16,533,793
Allocation by Meters Costs	82.13%	17.87%	100.00%
Meters Installed			
Meters Installed	134,658	11,779	146,437
Allocation by Meters Installed	91.96%	8.04%	100.00%
Total Before PILS			
Total Before PILS	\$ 5,121,368	\$ 1,017,914	\$ 6,139,282
Allocation by Total Before PILS	83.42%	16.58%	100.00%
Revenue Requirement (Commencement to 2011) Allocated:			
Return (Deemed Interest and Return on Equity)	\$ 1,998,783	\$ 434,951	\$ 2,433,734
Amortization	\$ 2,380,763	\$ 518,073	\$ 2,898,837
OM&A	\$ 741,822	\$ 64,890	\$ 806,711
Total Before PILS	\$ 5,121,368	\$ 1,017,914	\$ 6,139,282
PILS	\$ (655,594)	\$ (130,305)	\$ (785,899)
Total Revenue Requirement Allocated	\$ 4,465,774	\$ 887,609	\$ 5,353,383
Allocation for Smart Meter True-up	83.42%	16.58%	100.00%
Smart Meter True-up:			
Total Revenue Requirement Allocated			\$ 5,353,383
Smart Meter Rate Adder Revenues			\$ (6,705,705)
Carrying Charge			\$ (212,586)
Smart Meter True-up	\$ (1,305,441)	\$ (259,467)	\$ (1,564,908)
Smart Meter Disposition Rate (SMDR) Recovery			
Meters Installed (Average)	134,764	11,880	146,644
Disposition	\$ (0.81)	\$ (1.82)	\$ (0.89)

London Hydro is proposing that the Smart Meter True-up amounts by via a SMDR rate rider as a monthly fixed charge to be dispersed over a period of one year, commencing May 1, 2012 and ending April 30th, 2013. As determined in the Table above, London Hydro is requesting the Board to approve a Smart Meter Disposition Rate Rider of (\$0.81) per metered Residential customer per month, and (\$1.82) per metered GS < 50 kW customer per month.

9.5 Determination of Smart-Meter Incremental Revenue Requirement Rider

London Hydro is seeking a rate rider to recover the revenue requirement associated with projected 2012 smart meter investments. Board approved projected 2012 smart meter investments, as requested in this Application, will permit the calculation of a requested SMIRR. As London Hydro’s next Cost of Service distribution rate application is currently scheduled for 2013, in which it is expected that smart meters will be incorporated in the rate base, London Hydro is proposing for a SMIRR that is a monthly fixed charge to be recovered over a period of one year, commencement May 1, 2012 and ending April 30th, 2013.

Table 9-10, Smart Meter Incremental Rate Rider (SMIRR) by Rate Class

Smart Meter Incremental Rate Rider (SMIRR) by Rate Class			
	Residential	GS < 50 kW	Total
Allocation Factors			
Average Smart Meter Unit Cost	\$ 100.84	\$ 250.86	
Smart Meter Cost	\$ 13,584,560	\$ 3,000,787	\$ 16,585,347
Allocation by Meters Costs	81.91%	18.09%	100.00%
Meters Installed	134,714	11,962	146,676
Allocation by Meters Installed	91.84%	8.16%	100.00%
Total Before PILS	\$ 3,625,280	\$ 710,303	\$ 4,335,583
Allocation by Total Before PILS	83.62%	16.38%	100.00%
Revenue Requirement (2012) Allocated:			
Return (Deemed Interest and Return on Equity)	\$ 1,125,422	\$ 248,602	\$ 1,374,024
Amortization	\$ 1,814,698	\$ 400,861	\$ 2,215,559
OM&A	\$ 685,161	\$ 60,839	\$ 746,000
Total Before PILS	\$ 3,625,280	\$ 710,303	\$ 4,335,583
PILS	\$ 80,224	\$ 15,718	\$ 95,942
Total Revenue Requirement Allocated	\$ 3,705,504	\$ 726,021	\$ 4,431,525
Smart Meter Incremental Rate Rider (SMIRR) Recovery			
Meters Installed (Average)	134,764	11,880	146,644
Recovery	\$ 2.30	\$ 5.10	\$ 2.52

As determined in the Table 9-10 above, London Hydro is requesting the Board to approve a SMIRR of \$2.30 per metered Residential customer per month, and \$5.10 per metered GS < 50 kW customer per month. The proposed allocation basis of the 2012 revenue requirement, in the amount of \$4,431,525, used the same methodology as that for the SMDR. No smart meter funding revenues or carrying charges are included in the calculations.

9.6 Customer Bill Impact

Table 9-11 below summarizes the rate riders being proposed in the Application. The table further compares these proposed fixed monthly rate charges to the present approved Smart Meter Funding Adder, which expired on April 30, 2012.

Table 9-11, Bill Impact Comparison to 2012 IRM Applied Rates

Rate Class	Consumpti on kWh	IRM 2012 Applied for Rate	Proposed \$	Difference \$	Total Bill Impact
RESIDENTIAL	800	\$ 105.06	\$ 106.57	\$ 1.52	1.45%
GENERAL SERVICE LESS THAN 50 KW	2,000	\$ 258.34	\$ 261.67	\$ 3.34	1.29%

* Current Charges reflects the rate applied for in 2012 IRM Rate Application (EB-2011-0181)

The bill impact with the comparison of proposed rates in this Application to applied for rates as in our 2012 IRM rate application (EB-2010-0181) are (1.5%) for Residential rate class and (1.3%) for GS < 50 kW rate class.

Table 9-12, Bill Impact Comparison to Current Rates

Rate Class	Consumpti on kWh	Current \$	Proposed \$	Difference \$	Total Bill Impact
RESIDENTIAL	800	\$ 106.93	\$ 106.96	\$ 0.03	0.03%
GENERAL SERVICE LESS THAN 50 KW	2,000	\$ 260.32	\$ 262.17	\$ 1.85	0.71%

* Current Charges reflects approved rates as per 2011 IRM Rate Application (EB-2010-0097)

Table 9-12 above summarizes the bill impacts as a result of the rates charges requested in this Application. The bill impact with the comparison of proposed rate in this Application to current rates as approved in our 2011 IRM rate application (EB-2010-0097) are (0.03%) for Residential rate class and (0.71%) for GS < 50 kW rate class.

Table 9-13, Comparison of Proposed Rate Charges to Present Funding Adder

RESIDENTIAL	4/30/2012 Current	1 May 2012 Proposed	Difference \$
Funding Adder to April 30, 2012	\$ 1.46	\$ -	\$ (1.46)
SMDR	-	\$ (0.81)	\$ (0.81)
SMIRR	\$ -	\$ 2.30	\$ 2.30
Smart Meter Rate Change	\$ 1.46	\$ 1.49	\$ 0.03

GS < 50 kW	4/30/2012 Current	1 May 2012 Proposed	Difference \$
Funding Adder to April 30, 2012	\$ 1.46	\$ -	\$ (1.46)
SMDR	-	\$ (1.82)	\$ (1.82)
SMIRR	\$ -	\$ 5.10	\$ 5.10
Smart Meter Rate Change	\$ 1.46	\$ 3.28	\$ 1.82

* Current Funding Charges reflects approved rates as per 2011 IRM Rate Application (EB-2010-0097)

9.7 Stranded Meters

London Hydro is not requesting the recovery of Stranded Meter costs in this application in order to comply with recommendations contained in the Board’s Smart

Meter Funding and Cost Recovery - Final Disposition (G-2011-001), issued December 15, 2011. These meters continue to be included in rate base for rate-making purposes, as is recommended by the Board in its Decision with Reasons in the Smart Meter Combined Proceeding (EB-2007-0063).

London Hydro intends to seek recovery of the Stranded Meters in the next cost of service application expected for 2013. The amortization expense for stranded meters continues to be recorded for over the remaining amortization period. These amortized expense amounts are recorded to account 5705 Amortization Expense.

The total number of conventional revenue meters that has been replaced by Smart-meters, as at December 31, 2011 totals 141,511. The approximate net book value of these conventional meters, as at December 31, 2011, is \$3,511,000.

9.8 Other Matters

9.8.1 Copies of Commercial Agreements

London Hydro has not included copies of any Agreements associated with the Smart Meter Program, in this Application as evidence.

In following the Board’s Smart Meter Funding and Cost Recovery – Final Disposition (the “2011 Guideline”) Guideline (G-2011-0001) the guideline no longer requires the filing of the agreement(s). Rather, Section 3.5 states that in applications, “*A general description of contractual arrangements with the selected vendors should be provided.*”

London Hydro submits that it has described the contractual arrangements undertaken in support of the Smart Meter Program in the Application, in compliance with the 2011 Guideline, and that the agreements are not necessary for this Application.

During these proceedings, if the Board has determined that specific copies of Agreements associated with the smart meter program vendors are necessary to be filed with the Board, London Hydro will comply as per Board’s Practice Direction on Confidential Filings (the “Practice Direction”).

However, we respectfully request that as these Agreements are associated with vendors which are engaged in competitive business and that possible disclosure of terms and pricing as contained in the Agreements could reasonably prejudice the economic interest, competitive position, and cause undue financial effect on these vendors, that the Board takes this into consideration when addressing the confidentiality of the filings.

If copies of the Agreements are so requested by the Board, London Hydro will file these confidential un-redacted versions of the Agreements to the Board Secretary, in a sealed envelope marked “Confidential”.

London Hydro respectfully requests in the circumstances of having to provide copies of any agreements that they be kept confidential. Further, if copies of any agreements

are to be requested and provided to party’s council and/or experts or consultants that they be executed under the Board’s form and undertaking with respect to confidentiality. Further, that they comply with the Practice Direction, and be subject to London Hydro’s right to object to the Board’s acceptance of a Declaration and Undertaking from any party. We request that all parties comply with the requirements of the Board’s Practice Direction on Confidential Filings (the “Practice Direction”).

10 CONCLUSIONS

London Hydro recognizes that there are benefits to Smart-meters beyond simply billing the customer on time-of-use electricity rates. As may or may not be apparent, London Hydro has specifically chosen an integrated architecture for our corporate computer systems with a vision of Smart Grid and enhanced customer services in mind. Advanced metering infrastructure is viewed as the foundation to exploit these benefits in future.

London Hydro has demonstrated leadership in the assembly of an informal Smart-metering procurement consortium, the creation of a comprehensive Request for Proposal document, and the development of a fair and transparent procurement process by which more than 60 LDC’s entered into procurement contracts for their respective AMI system. This achievement was formally recognized by the Ministry of Energy by specific reference to the London Hydro RFP within Ontario Regulation 427/06, *Smart Meters: Discretionary Metering Activity and Procurement Principles*.

The computer and communications systems necessary to transmit a customer’s hourly energy consumption data from the Smart-meter through to production of a bill based on time-of-use electricity rates is more than the AMI component. This narrative document is intended to demonstrate that London Hydro employed appropriate procurement practices throughout the project and that the project management team was effective in the procurement and deployment of the various system elements required for a full solution.

In spite of careful project planning, this narrative document also highlights a number of circumstances largely outside of London Hydro’s control that would eventually delay the transition of London Hydro’s customers to time-of-use electricity billing. Whereas the original plan was for the summer of 2011, the project reality is Spring of 2012.

The proposed rate riders in this application have resulted in nominal rate changes in total of \$0.17 per month. This rate change is based on the comparison of the current Smart Meter Funding Adder of \$1.46 per metered customer per month and the proposed combined SMDR and SMIRR of \$1.63 per meter per month (for combined *residential* and *general service < 50 kW* customers).

The customer bill impacts (in comparison to current rates) reflect minimum changes of 0.03% for *residential* class customers and 0.71% for *general service < 50 kW* customers. It is therefore appropriate that the Board approve the proposed rate riders and eliminate the funding adder for implementation effective May 1, 2012.

In summary, London Hydro respectfully submits that the costs necessary to fulfill its obligations under the provincially mandated Smart Meter initiative have been prudently incurred in accordance with Board guidelines and that the proposed rate riders are just and reasonable.

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