

September 30, 2011

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

Dear Ms. Walli:

### Kingston Hydro Corporation 3<sup>rd</sup> Generation Incentive Regulation Mechanism Application Ontario Energy Board File Number: EB–2011-0178

Please find attached Kingston Hydro Corporation's 2012 3<sup>rd</sup> Generation Incentive Regulation Mechanism Application requesting new electricity rates effective May 1, 2012.

As outlined in the filing requirements, Kingston Hydro has included two paper copies and one CD with all electronic files. A copy has also been filed electronically through the Board's RESS System and has submitted electronic files to the Board Secretary at boardsec@ontarioenergyboard.ca.

The primary contact for this application will be:

Randy Murphy Chief Financial Officer (613) 546-1181 ext 2317 Email: rmurphy@kingstonhydro.com

The rate adjustments applied for are those generated by the applicable Ontario Energy Board models complete with the appropriate supporting documentation.

Respectfully submitted,

J. A. Keech, P.Eng. President and CEO

Encl.

## **Kingston Hydro Corporation**

# 3<sup>rd</sup> Generation Incentive Regulation Mechanism Application

EB-2011-0178

Submitted 30 September, 2011

Kingston Hydro Corporation 1211 John Counter Blvd Kingston, ON K7L 4X7 (613) 546-1181

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Page 1 of 1

### INDEX OF APPLICATION

### Exhibit 1: Administration Documents

- Tab 1: Application
- Tab 2: Manager's Summary
  Appendix A: Kingston Hydro May 1, 2011 Rate Order
  Appendix B: Proposed Tariff Sheets
  Appendix C: Customer Bill Impacts
  Appendix D: Reference Documents
- Exhibit 2: 2012 IRM3 Rate Generator
- Exhibit 3: 2012 IRM3 Shared Tax Savings Workform
- Exhibit 4: 2012 RTSR Adjustment Workform
- Exhibit 5: 2012 Incremental Capital Workform
- Exhibit 6: 2012 Incremental Capital Expenditures
- Exhibit 7: 2012 Capital Expenditures Overview
- Exhibit 8: 2012-2014 Capital Plan
- Exhibit 9: LRAM Write-up

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 1 Tab 1 Page 1 of 3

# 2 3

1

IN THE MATTER OF the Ontario Energy Board Act, 1998, S.O. 1998, c.15 (Sched. B)

2012.

**APPLICATION** 

4 **AND IN THE MATTER** OF an application by Kingston Hydro Corporation 5 for an Order or Orders pursuant to section 78 of the *Ontario Energy Board* 

6 Act, 1998 approving or fixing just and reasonable rates and other service

7 charges for the distribution of electricity and related matters as of May 1,

- 8
- 9

### 10 Application

The applicant is Kingston Hydro Corporation (the "Applicant"). The Applicant is a
 licensed electricity distributor operating pursuant to electricity distribution license ED 2003-0057. The Applicant distributes electricity to approximately 27,000 customers in
 the City of Kingston.

2) The Applicant hereby applies to the Ontario Energy Board (the "Board") pursuant to
Section 78 of the Ontario Energy Board Act 1998 (the "OEB Act") for approval if its
proposed distribution rates and other charges, on a 2012 incentive regulation
mechanism ("IRM") application effective May 1, 2012.

3) The Applicant has prepared this Application in accordance with the filing requirements
 issued by the Board on June 22, 2011 as *Chapter 2 of the Filing Requirements for Transmission and Distribution Applications*.

Specifically, Kingston Hydro Corporation is applying for order or orders grantingdistribution rates updated and adjustments that include the following:

• Shared Tax Savings

- 1 Incremental Capital
- 2 Retail Transmission Services Rates
- Lost Revenue Adjustment Mechanism("LRAM")
- 4 This Application is supported by written evidence that may be amended from time to time,
- 5 prior to the Board's final decision on this Application.
- 6 The Applicant intends to publish the Notice of Application in The Whig Standard a local
- 7 paid-subscription newspaper with an average daily circulation of 23,457.
- 8 The primary day-to-day contact for this application should be:

9	Randy	Murphy, Chief Financial Officer
10	Tel:	613-546-1181 extension 2317
11	Fax:	613-546-1624
12	Email:	rmurphy@kingstonhydro.com

The Applicant requests that a copy of all documents filed with the Board in this proceedingbe served on the Applicant, as follows:

- 15 Kingston Hydro Corporation
- 16 1211 John Counter Boulevard
- 17 PO Box 790
- 18 Kingston ON K7L 4X7
- 19 Attention: Nancy Taylor, Vice-President and Corporate Secretary
- 20 Tel: 613-546-1181 extension 2460

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 1 Tab 1 Page 3 of 3

1	Fax:	613-546-1624
2	Email:	ntaylor@kingstonhydro.com
3	and to	<i>::</i>
4	Attenti	on: Randy Murphy, Chief Financial Officer
5	Tel:	613-546-1181 extension 2317
6	Fax:	613-546-1624
7	Email:	rmurphy@kingstonhydro.com

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 1 Tab 2 Page 1 of 10

### MANAGER'S SUMMARY

Kingston Hydro Corporation ("Kingston") is the licensed electricity distributor (ED 2003-0057)
that operates the electricity distribution systems that provide power to approximately 27,000
customers in the City of Kingston. Kingston charges its customers distribution rates and
other charges as authorized by the Ontario Energy Board ("Board"). In this application,
Kingston is applying for rates and other charges effective May 1, 2012.

The application was filed on the basis of the Incremental Capital and 3<sup>rd</sup> Generation Incentive
Regulation Mechanism ("IRM3") policies as set out by the Board in the Report dated
December 20, 2006, and subsequent relevant Board Decisions. This Manager's Summary
addresses the following items:

- 11 Revenue to Cost Ratio Adjustments
- Shared Tax Savings

1

- 13 Incremental Capital
- 14 Deferral and Variance Account Balances
- Smart Meter Rate Adder
- Retail Transmission Services Rates
- 17 Lost Revenue Adjustment Mechanism("LRAM")
- 18 Input Data for Workforms
- 19 Conclusion
- Kingston Hydro May 1, 2011 Rate Order Appendix A
- Proposed Tariff of Rates and Charges Appendix B

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 1 Tab 2 Page 2 of 10

- 1 Customer Bill Impacts Appendix C
- 2 Reference Documents Appendix D

#### 3 Revenue to Cost Ratio

Kingston made a Cost of Service application for rates effective May 1, 2011 with an implementation date of August 1, 2011. The Board's Decision (EB-2010-0136) accepted the revenue to cost ratios that were agreed to in the Partial Settlement Agreement as part of that proceeding. Therefore no further adjustments to the Revenue to Cost ratios have been made in this application.

#### 9 Shared Tax Savings

The completion of the 2012 IRM3 Shared Tax Savings Workform for Kingston results in a
 2012 tax sharing amount of a refund of \$34,075. Consequently, Kingston proposes a
 negative rate rider as determined by the Shared Savings model to reflect this refund.

#### 13 Incremental Capital Module

14 Kingston requests the approval of rate riders to recover amounts through rates related to 15 incremental capital investments.

16 Chapter 3 of the Filling Requirements for Transmission and Distribution Applications issued 17 on June 22, 2011 requires that the incremental capital expenditures satisfies the eligibility 18 criteria of Materiality, Need and Prudence in order to be considered for recovery prior to 19 rebasing.

- 20 The detailed Incremental Capital write-ups can be found in Exhibit 6 of this application, along
- with 2012 Capital Plan and 2012-2014 Capital Plan in Exhibits 7 and 8.

#### **1 Deferral and Variance Accounts**

The Report of the Board on Electricity Distributors' Deferral and Variance Account Review Report (the "EDDVAR Report") provides that during the IRM plan term, the distributor's Group 1 audited account balances will be reviewed and disposed if the preset disposition threshold of \$0.001 per kWh (debit or credit) is exceeded. Kingston has completed the 2012 IRM Deferral and Variance Account Workform and has determined that threshold has not been exceeded. The 2010 actual year end amount for Group 1 accounts with interest projected to April 30, 2012 is a credit of \$107,855.

9 As a result, Kingston does not meet the threshold test.

In addition, Kingston will not be seeking disposition of account 1562 – Deferred Payments in
 Lieu of Taxes or account 1521 – Special Purpose Charge Variance Account as part of this
 proceeding.

These balances have been removed from Sheet 9 - 2012 Continuity Schedule Def\_Var so as
not to calculate the related rate riders. Consequently these 2 accounts do not agree to the
2.1.7 RRR December 31, 2010 submission.

#### 16 Smart Meter Rate Adder

Kingston has a Smart Meter Adder included in its current tariffs. Given the Board's direction
of a sunset date of April 30, 2012 for most distributors with Smart Meter Funding Adders,
Kingston proposes to eliminate this rate adder effective April 30, 2012.

20 Kingston will seek a stand-alone prudence review of its Smart Meter costs at a later date.

#### 21 Retail Transmission Rates

On June 22, 2011, the Ontario Energy Board (the "Board") issued revision 3.0 of the Guideline G-2008-0001 Electricity Distribution Retail Transmission Service Rates (the "Guideline"). This Guideline outlines the information that the Board requires electricity distributors to file when proposing adjustments to their retail transmission service rates ("RTSRs") for 2012. The Board also indicated in the covering letter that in order to assist
electricity distributors in the calculation of the distributor's specific RTSRs, Board staff would
provide a filing module. Kingston has completed this module and the proposed 2012 RTSRs
reflect the outcome of this module. The following table is a summary of the increased rates:

#### 5 **Table 1: Summary of Retail Transmission Rate changes**

Rate Description	Unit	Current	Proposed	%
Nate Description	Onit	Guirent	FTOPOSeu	Change
Residential – Network Service Rate	kWh	0.0057	0.0059	3.509%
GenServLT50– Network Service Rate	kWh	0.0052	0.0054	3.846%
GenServGT50– Network Service Rate	kW	2.2797	2.3645	3.720%
Large Use- Network Service Rate	kW	2.7468	2.8490	3.721%
Unmetered Scatter – Network Service Rate	kWh	0.0057	0.0059	3.509%
Streetlights–Network Service Rate	kW	1.6467	1.7080	3.723%
Residential – Connection Service Rate	kWh	0.0050	0.0050	0.000%
GenServLT50– Connection Service Rate	kWh	0.0046	.0046	0.000%
GenServGT50– Connection Service Rate	kW	1.9813	1.9836	0.252%
Large Use- Connection Service Rate	kW	2.3874	2.3902	0.251%
Unmetered Scatter – Connection Service Rate	kWh	0.0050	.0050	0.000%
Streetlights- Connection Service Rate	kW	1.4311	1.4328	0.252%

6

#### 7 Lost Revenue Adjustment Mechanism

8 Kingston requests LRAM relief for revenue lost in 2010.

9 Kingston followed the Board's "Guidelines for Electricity Distributor Conservation and

Demand Management" Board File No. EB-2008-0037 issued on March 28, 2008 (the "CDM

11 Guidelines") in applying for LRAM adjustments.

Kingston has included in this application a request for the establishment of a rate rider to
recover lost revenues. Kingston submits its request for the approval and recovery of historical
Lost Revenue Adjustment Mechanism ("LRAM") amounts related to Conservation and
Demand Management ("CDM") activities. The complete detailed write up can be found in
Exhibit 9: LRAM write-up.

It is requested that these amounts be recovered through a volumetric rate rider over a oneyear period beginning May 1, 2012 and ending April 30, 2013. Total amount for recovery is
\$175,754, including carrying charges of \$1,391. The rate riders have been inputted into the
Rate Generator. Amounts for LRAM recovery are summarized in Table 2.

	LRAM	Carry Charges	Total
Residential	\$60,554	\$483	\$61,037
GS<50	\$29,144	\$233	\$29,377
GS>50 to 4,999	\$84,270	\$672	\$84,942
Large User	\$255	\$2	\$257
Unmetered Scattered Load	\$140	\$1	\$141
Total	\$174,364	\$1,391	\$175,754

10 **Table 2: Summary of Requested LRAM Amounts** 

11

12 The LRAM adjusts for volumetric variances between actual CDM results and the 13 corresponding quantities used in rate setting. The requested LRAM amounts are derived from 14 programs run under contract from the Ontario Power Authority ("OPA") in 2010.

In requesting recovery of the LRAM amounts by way of volumetric rate riders over a one-year period, the foregone revenue from each customer class was allocated to that class for recovery. Table 3 below which sets out the corresponding amounts by class, as well as the corresponding rate riders based on the most recent (i.e. 2011) Board approved volumetric forecast.

Table J. LINA		ounts and Rat				_
	LRAM	Carry	Total	Units	Annual Billed	Rate
		Charges			kWh/kW	Ride
						\$/unit
Residential	\$60,554	\$483	\$61,037	kWh	194,606,362	0.0003
GS<50	\$29,144	\$233	\$29,377	kWh	93,096,784	0.0003
GS>50 to 4,999	\$84,270	\$672	\$84,942	kW	701,859	0.1210
Large User	\$255	\$2	\$257	kW	297,737	0.0009
Unmetered Scattered Load	\$140	\$1	\$141	kWh	2,275,040	0.0001
Total	\$174,364	\$1,391	\$175,754			

#### 1 Table 3: LRAM/SSM Amounts and Rate Riders by Class

2

#### 3 Input Data for Workforms

4 Rate Order, EB-2010-0136 – Tariff sheet May 1, 2011 with an implementation date of
 5 August 1, 2011 (Filed in this application as Appendix A)

6 The Kingston's Rate Order , EB-2010-0136 , Tariff of Rates and Charges effective May 1, 7 2011 with an implementation date of August 1, 2011 was used in all Workforms and 2012 8 Rate Generator. It was identified that for the Street Lighting Services customer class the rate 9 Rider for Deferral /Variance Account Disposition (2011) used an "effective until" date of April 10 30, 2012. This was an oversight in creating the Tariff of Rates and Charges for May 1, 2011.

The "effective until" date should be April 30, 2013 as per Page 7 of the COS Draft Rate Order Submission (filed in this application within Appendix D) dated June 30, 2011, for Deferral and Variance Accounts. In the approved Partial Settlement Agreement, the Parties agreed to the disposition of the balances selected for disposition over a two year period. All other Customer Classes had the correct "effective until" date of April 30, 2013. As such the effective date 1 used throughout the Workforms and Rate Generator Model was April 30, 2013 for "Rate

2 Rider Deferral/Variance Account Disposition (2011).

#### 3 IRM3 Tax Saving Workform

The 2012 IRM3 Shared Tax Saving Workform (Exhibit 3) was populated using the re-based
billed customers or connections and the billed amounts from Kingston's 2011 Cost of Service
Application, forecasted load data from Exhibit C2 and the 2011 Base Monthly Fixed Charge
and Distribution Volumetric Charge (filed in this application within Appendix D).

8 The rate rebalanced data (Base Service Charge, Distribution Volumetric Rate kWh and 9 Distribution Volumetric Rate kW) were obtained from Rate Order, EB-2010-0136 – Tariff of 10 Rates and Charges effective date of May 1, 2011 with an implementation date of August 1, 11 2011 (filed in this application as Appendix A).

The input data for *Sheet 5: Z-Factor Tax Changes* were obtained from the Rate Order, EB2010-0136, Appendix J – Revenue Requirement Workform, Taxes/PILS worksheets (filed in
this application within Appendix D).

Sheet 6: Calc Tax RRider Var contains the resulting tax savings rate riders were inputted into
sheet 14 of the 2012 Rate Generator.

Note that Kingston's Tax Saving Workform Headings have defaulted to Algoma, this could not be corrected, however as it was headings only and does not have an effect on calculations it has been left with the Algoma headings.

#### 1 RTSR Workform

The RTSR adjustment workform is attached as Exhibit 4. The rate classes entered in *Sheet 3: Rate Classes* are taken from the most recent Board approved Rate Order, EB-2010-0136
Tariff of Rates and Charges effective date of May1, 2011 with an implementation date of
August 1, 2011 (filed in this application as Appendix A).

6 Sheet 4: RRR Data requires the most recent reported RRR Billing determinants, non-loss 7 adjusted; i.e. year 2010 actual data. This was taken from the 2.1.5 Annual Performance 8 Based Regulation, Customers, Demand and Revenues section (filed in this application within 9 Appendix D). The application loss factors are based on Kingston's current Tariff of Rates and 10 Charges (filed in this application as Appendix A).

To populate *Sheet 6: Historical Wholesale*, Kingston's billing details for the three wholesale transmission components for the same reporting period, year 2010, were obtained. The primary source for the required data is the Invoice Reports for each of the 12 months of 2010. These data are the Amounts values shown in Sheet 6 for each of the three components. In order to obtain the kW values shown in Sheet 6, the billed amounts were divided by the appropriate Uniform Transmission Rates (UTR) as shown.

As described in Kingston's 2011 Cost of Service Application, Kingston has partially embedded status, and as such, incurs transmission costs based on wholesale UTR rates and as well as transmission costs based on HONI's RTSR rates for its Sub-Transmission rate class.

Kingston's approach to calculating proposed RTSRs deviates from the Board's current guideline as a result of this partially embedded status. The methodology proposed is though consistent with the general approach outlined in Guideline G-2008-001 Revision 2.0. Kingston proposes to adjust its RTSRs based on the comparison of its total historical transmission costs adjusted for current IESO and HONI's applicable rates, and revenues generated from existing RTSRs. 1 Sheet 13: Final 2012 RTS Rates contains the resulting RTS rates that were inputted into

2 Sheet 15 and 16 of the 2012 Rate Generator.

#### 3 Incremental Capital Workform

The data inputs for *Sheet B1.1 –Re-Based Bill Det & Rates* are based on the Rate Order, EB2010-0136 – Tariff of Rates and Charges effective date of May 1, 2011 with an
implementation date of August 1, 2011 (filed in this application as Appendix A).

Sheet B 1.1 was also populated using the re-based billed customers or connections and the
billed amounts from Kingston's 2011 Cost of Service Application, forecasted load data from
Exhibit C2 and the 2011 Base Monthly Fixed Charge and Distribution Volumetric Charge
(filed in this application within Appendix D).

Sheet B 1.4 Re-Based Rev Req was populated with Kingston's 2011 COS approved data.
Sheet C1.1 Ld Act-Mst Recent YR was populated using the most recent RRR filing (filed in this application within Appendix D).

Sheet E3.1 Summary of IC Projects was populated with four incremental capital nondiscretionary projects for a total cost of \$3,500,000, the determination of incremental capital project was documented in the Incremental Capital Write-up (filed in this application as Exhibit 6). The incremental revenue requirement has been calculated at \$268,458 and this amount is proposed to be recovered under Option A as fixed and variable rate riders.

19 2012 Rate Generator

The data inputs to *Sheets 3 to 8 and 19: Other Charges* were from the most recent Board approved Rate Order, EB-2010-0136 – Tariff of Rates and Charges effective date of May1, 2011, with an implementation date of August 1, 2011 (filed in this application as Appendix A).

The data input to *Sheet 9: 2012 Cont. Sched. Def\_Var* were extracted from Kingston's accounting records with no variance between accounting records and 2.1.7 RRR December 31, 2010 submission except as noted above. Sheet 10: Billing Det. For Def\_Var used the Kingston's 2011 Cost of Service Application,
 forecasted load data from Exhibit C2 and the 2011 Base Monthly Fixed Charge and
 Distribution Volumetric Charge (filed in this application within Appendix D).

4 Sheet 14: Proposed Rate\_Riders, the Deferral/Variance values are automatically included 5 from the values calculated in Sheet 12. The LRAM Rate Riders are calculated from the LRAM 6 report prepared by Kingston (filed in the application as Exhibit 9) and results presented in 7 Table 3 in the Manager's Summary. The Incremental Capital Rate Riders are as calculated in 8 the Incremental Capital Workform Option A.

9 The RTSR rate riders on *Sheet 15 and 16* have been populated from the RTSR Workform. 10 There is no changes to the Revenue to Costs Ratios have been requested, hence the there 11 are no inputs to *Sheet 17: GDP-IPI-X. Sheet 18: Loss Factor Current and Proposed* was 12 populated with the most recent Board approved Rate Order (filed in this application as 13 Appendix A).

#### 14 Conclusion

A copy of the current and proposed tariff sheet are provided in Appendix A and CustomerImpacts are provided in Appendix B.

In summary, the bill impact for a Residential customer in the City of Kingston, with a monthly
electricity consumption of 800 kWh, will be a reduction of 0.21% or \$0.23 per month after
HST and Ontario Clean Energy Benefit. The bill impact for a General Service Less Than 50
kW customer with a monthly electricity consumption of 2,000 kWh will be an increase of
0.64% or \$1.63 per month after HST. Please refer to Appendix C, Customer Bill Impacts.

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 1 Tab 2 Appendix A

### **APPENDIX A**

Kingston Hydro May 1, 2011 Rate Order

Ontario Energy Board Commission de l'énergie de l'Ontario



EB-2010-0136

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, (Schedule B);

**AND IN THE MATTER OF** an application by Kingston Hydro Corporation for an order approving just and reasonable rates and other charges for electricity distribution to be effective May 1, 2011.

**BEFORE:** Paula Conboy Presiding Member

> Ken Quesnelle Member

### RATE ORDER

Kingston Hydro Corporation ("Kingston Hydro") filed an application with the Ontario Energy Board (the "Board") on August 23, 2010 under section 78 of the *Ontario Energy Board Act*, *1998*, S.O. 1998, c. 15, (Schedule B), seeking approval for changes to the rates that Kingston Hydro charges for electricity distribution, to be effective May 1, 2011. The Board assigned File Number EB-2010-0136 to this application.

The Board issued its Decision and Order on the application on June 23, 2011. In the Decision, the Board ordered Kingston Hydro to file a draft Rate Order reflecting the Board's findings in the Decision and Order. The Board approved an effective date of May 1, 2011 and an implementation date of August 1, 2011.

The Applicant filed a draft Rate Order and supporting material on June 30, 2011. The Vulnerable Energy Consumers Coalition, (VECC), the Energy Probe Research Foundation (Energy Probe), the School Energy Coalition (SEC) and Board staff filed

comments on the draft Rate Order. Kingston Hydro filed its response to the comments on July 8, 2011.

In its response, Kingston Hydro clarified a number of issues raised by the intervenors, including confirming that it does not expect to receive tax credits associated with the Co-op Education Tax Credit, the Apprenticeship Training Tax Credit and the Federal Tax Credit in 2011 from hiring new apprentices; clarification of how the LV rates were determined; the Rate of Return used to Calculate the Working Capital Allowance; and, amending the Fixed and Variable charges for the General Service >50kW class to reflect the settlement agreement.

As a result of a request from Board staff, Kingston Hydro provided a calculation of the Rate Riders for Forgone Incremental Revenue based on a 9 month recovery period. In addition, Kingston Hydro also based the recovery of deferral and variance accounts on a period ending on April 30, 2013.

The Board approves the changes in the recovery periods of these riders as they will then conclude on April 30, 2012 and April 30, 2013 respectively, in conjunction with the end of Kingston Hydro's rate year.

The Board has reviewed the information provided in support of the draft Rate Order and the proposed Tariff of Rates and Charges. The Board is satisfied that the Tariff of Rates and Charges accurately reflects the Board's Decision.

### THE BOARD ORDERS THAT:

- 1. The Tariff of Rates and Charges set out in Appendix "A" of this Rate Order is approved effective August 1, 2011 for electricity consumed or estimated to have been consumed on and after such date.
- The Tariff of Rates and Charges set out in Appendix "A" of this Order supersedes all previous Tariff of Rates and Charges approved by the Ontario Energy Board for the Kingston Hydro service area, and is final in all respects except for the stand by rates which remain interim.

3. Kingston Hydro shall notify its customers of the rate changes no later than with the first bill reflecting the new rates.

### DATED at Toronto, July 26, 2011 ONTARIO ENERGY BOARD

Original signed by

Kirsten Walli Board Secretary APPENDIX A

### TO RATE ORDER

### EB-2010-0136

Kingston Hydro Corporation

DATED: July 26, 2011

Page 1 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011

Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

### **RESIDENTIAL SERVICE CLASSIFICATION**

This classification applies to an account taking electricity at 750 volts or less where the electricity is used exclusively in a separate metered living accommodation. Customers shall be residing in single-dwelling units that consist of a detached house or one unit of a semi-detached, duplex, triplex or quadruplex house, with a residential zoning. Separately metered dwellings within a town house complex or apartment building also qualify as residential customers. All customers are single-phase. Further servicing details are available in the distributor's Conditions of Service.

#### **APPLICATION**

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

#### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge Smart Meter Funding Adder	\$ \$	12.06 1.00
Rate Rider for Recovery of Late Payment Penalty Litigation Costs – effective until April 30, 2012	\$	0.28
Distribution Volumetric Rate	\$/kWh	0.0148
Low Voltage Service Rate	\$/kWh	0.0007
Rate Rider for Global Adjustment Sub-Account Disposition (2010) – effective until April 30, 2012		
Applicable only for Non-RPP Customers	\$/kWh	0.0015
Rate Rider for Global Adjustment Sub-Account Disposition (2011) – effective until April 30, 2013		
Applicable only for Non-RPP Customers	\$/kWh	0.0013
Rate Rider for Deferral/Variance Account Disposition (2010) – effective until April 30, 2012	\$/kWh	(0.0031)
Rate Rider for Deferral/Variance Account Disposition (2011) – effective until April 30, 2013	\$/kWh	0.0011
Rate Rider for Foregone Incremental Revenue (2011) – effective until April 30, 2012	\$/kWh	0.0017
Lost Revenue Adjustment Mechanism Rate Rider (2011) – effective until April 30, 2012	\$/kWh	0.0013
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0057
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0050
MONITUL V DATES AND CUADGES Degulatory Component		

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Page 2 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011

Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

### **GENERAL SERVICE LESS THAN 50 kW SERVICE CLASSIFICATION**

This classification refers to a non residential account taking electricity at 750 volts or less whose monthly average peak demand is less than, or is forecast to be less than, 50 kW. Further servicing details are available in the distributor's Conditions of Service.

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

#### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge Smart Meter Funding Adder	\$ \$	24.83 1.00
Rate Rider for Recovery of Late Payment Penalty Litigation Costs - effective until April 30, 2012	\$	0.68
Distribution Volumetric Rate	\$/kWh	0.0103
Low Voltage Service Rate	\$/kWh	0.0006
Rate Rider for Global Adjustment Sub-Account Disposition (2010) – effective until April 30, 2012		
Applicable only for Non-RPP Customers	\$/kWh	0.0015
Rate Rider for Global Adjustment Sub-Account Disposition (2011) – effective until April 30, 2013		
Applicable only for Non-RPP Customers	\$/kWh	0.0013
Rate Rider for Foregone Incremental Revenue (2011) – effective until April 30, 2012	\$/kWh	0.0004
Rate Rider for Deferral/Variance Account Disposition (2010) – effective until April 30, 2012	\$/kWh	(0.0020)
Rate Rider for Deferral/Variance Account Disposition (2011) – effective until April 30, 2013	\$/kWh	0.0004
Lost Revenue Adjustment Mechanism Rate Rider (2011) – effective until April 30, 2012	\$/kWh	0.0005
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0052
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0046
MONTHLY RATES AND CHARGES – Regulatory Component		

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Page 3 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011

Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

### **GENERAL SERVICE 50 to 4,999 kW SERVICE CLASSIFICATION**

This classification refers to a non residential account whose monthly average peak demand is equal to or greater than, or is forecast to be equal to or greater than, 50 kW but less than 5,000 kW. Further servicing details are available in the distributor's Conditions of Service.

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

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#### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge Smart Meter Funding Adder	\$ \$	269.01 1.00
Rate Rider for Recovery of Late Payment Penalty Litigation Costs – effective until April 30, 2012	\$	6.78
Distribution Volumetric Rate	\$/kW	1.9270
Low Voltage Service Rate	\$/kW	0.2520
Rate Rider for Global Adjustment Sub-Account Disposition (2010) – effective until April 30, 2012		
Applicable only for Non-RPP Customers	\$/kW	0.5972
Rate Rider for Global Adjustment Sub-Account Disposition (2011) – effective until April 30, 2013		
Applicable only for Non-RPP Customers	\$/kW	0.4946
Rate Rider for Foregone Incremental Revenue (2011) – effective until April 30, 2012	\$/kW	0.1483
Rate Rider for Deferral/Variance Account Disposition (2010) – effective until April 30, 2012	\$/kW	(0.5793)
Rate Rider for Deferral/Variance Account Disposition (2011) – effective until April 30, 2013	\$/kW	(0.0021)
Lost Revenue Adjustment Mechanism Rate Rider (2011) – effective until April 30, 2012	\$/kW	0.0409
Retail Transmission Rate – Network Service Rate	\$/kW	2.2797
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.9813

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Page 4 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011

Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

### LARGE USE SERVICE CLASSIFICATION

This classification refers to an account whose monthly average peak demand is equal to or greater than, or is forecast to be equal to or greater than, 5,000 kW. Further servicing details are available in the distributor's Conditions of Service.

#### **APPLICATION**

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

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#### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge Smart Meter Funding Adder	\$ \$	4,959.68 1.00
Rate Rider for Recovery of Late Payment Penalty Litigation Costs – effective until April 30, 2012	\$	127.93
Distribution Volumetric Rate	\$/kW	1.0118
Low Voltage Service Rate	\$/kW	0.3036
Rate Rider for Global Adjustment Sub-Account Disposition (2010) – effective until April 30, 2012		
Applicable only for Non-RPP Customers	\$/kW	0.7883
Rate Rider for Global Adjustment Sub-Account Disposition (2011) – effective until April 30, 2013		
Applicable only for Non-RPP Customers	\$/kW	0.6827
Rate Rider for Foregone Incremental Revenue (2011) – effective until April 30, 2012	\$/kW	0.1024
Rate Rider for Deferral/Variance Account Disposition (2010) – effective until April 30, 2012	\$/kW	(0.7345)
Rate Rider for Deferral/Variance Account Disposition (2011) – effective until April 30, 2013	\$/kW	(0.0370)
Lost Revenue Adjustment Mechanism Rate Rider (2011) – effective until April 30, 2012	\$/kW	0.0003
Retail Transmission Rate – Network Service Rate	\$/kW	2.7468
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	2.3874

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Page 5 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011

Implementation Date August 1, 2011

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EB-2010-0136

### UNMETERED SCATTERED LOAD SERVICE CLASSIFICATION

This classification refers to an account taking electricity at 750 volts or less whose monthly average peak demand is less than, or is forecast to be less than, 50 kW and the consumption is unmetered. Such connections include cable TV power packs, bus shelters, telephone booths, traffic lights, railway crossings, etc. The customer will provide detailed manufacturer information/documentation with regard to electrical demand/consumption of the proposed unmetered load. Further servicing details are available in the distributor's Conditions of Service.

#### **APPLICATION**

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

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#### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge (per customer)	\$	11.09
Rate Rider for Recovery of Late Payment Penalty Litigation Costs – effective until April 30, 2012	\$	0.36
Distribution Volumetric Rate	\$/kWh	0.0135
Low Voltage Service Rate	\$/kWh	0.0007
Rate Rider for Global Adjustment Sub-Account Disposition (2010) – effective until April 30, 2012		
Applicable only for Non-RPP Customers	\$/kWh	0.0015
Rate Rider for Global Adjustment Sub-Account Disposition (2011) – effective until April 30, 2013		
Applicable only for Non-RPP Customers	\$/kWh	0.0013
Rate Rider for Foregone Incremental Revenue (2011) – effective until April 30, 2012	\$/kWh	0.0010
Rate Rider for Deferral/Variance Account Disposition (2010) – effective until April 30, 2012	\$/kWh	(0.0024)
Rate Rider for Deferral/Variance Account Disposition (2011) – effective until April 30, 2013	\$/kWh	0.0007
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0057
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0050

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Page 6 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011

Implementation Date August 1, 2011

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EB-2010-0136

# STANDBY POWER SERVICE CLASSIFICATION – APPROVED ON AN INTERIM BASIS

This classification refers to an account that has Load Displacement Generation and requires Kingston Hydro Corporation to provide back-up service. Further servicing details are available in the distributor's Conditions of Service.

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

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#### MONTHLY RATES AND CHARGES

Standby Charge – for a month where power is not provided, the charge is based on the applicable General Service 50 to 4,999 kW or Large Use Distribution Volumetric Charge applied to the contracted amount (e.g. nameplate rating of generation facility).

Page 7 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011

Implementation Date August 1, 2011

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EB-2010-0136

### STREET LIGHTING SERVICE CLASSIFICATION

This classification refers to an account for roadway lighting with a Municipality, Regional Municipality, Ministry of Transportation and private roadway lighting operation, controlled by photo cells. The consumption for these customers will be based on the calculated connected load times the required lighting times established in the approved OEB street lighting load shape template. Further servicing details are available in the distributor's Conditions of Service.

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

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#### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge (per connection)	\$	0.99
Rate Rider for Recovery of Late Payment Penalty Litigation Costs – effective until April 30, 2012	\$	0.02
Distribution Volumetric Rate	\$/kW	4.4901
Low Voltage Service Rate	\$/kW	0.1820
Rate Rider for Global Adjustment Sub-Account Disposition (2011) – effective until April 30, 2013		
Applicable only for Non-RPP Customers	\$/kW	0.4747
Rate Rider for Foregone Incremental Revenue (2011) – effective until April 30, 2012	\$/kW	0.4289
Rate Rider for Deferral/Variance Account Disposition (2010) – effective until April 30, 2012	\$/kW	(0.5398)
Rate Rider for Deferral/Variance Account Disposition (2011) – effective until April 30, 2012	\$/kW	0.0539
Retail Transmission Rate – Network Service Rate	\$/kW	1.6467
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.4311
MONTHLY RATES AND CHARGES – Regulatory Component		

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Page 8 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011

Implementation Date August 1, 2011

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EB-2010-0136

### microFIT GENERATOR SERVICE CLASSIFICATION

This classification applies to an electricity generation facility contracted under the Ontario Power Authority's microFIT program and connected to the distributor's distribution system. Further servicing details are available in the distributor's Conditions of Service.

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

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#### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge

\$ 5.25

Page 9 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011

Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

### ALLOWANCES

EB-2010-0136

Transformer Allowance for Ownership - per kW of billing demand/month	\$/kW	(0.60)
Primary Metering Allowance for transformer losses – applied to measured demand and energy	%	(1.00)

### SPECIFIC SERVICE CHARGES

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

Customer Administration		
Arrears Certificate	\$	15.00
Statement of Account	\$	15.00
Request for other billing information	\$	15.00
Account history	\$	15.00
Returned Cheque (plus bank charges)	\$	15.00
Legal letter charge	\$	15.00
Account set-up charge/change of occupancy charge (plus agency costs if applicable)	\$	15.00
Special meter reads	\$ \$	30.00
Meter dispute charge plus Measurement Canada fees (if meter found correct)	\$	30.00
Non-Payment of Account		
Late Payment - per month	%	1.50
Late Payment - per annum	%	19.56
Disconnect/Reconnect Charges - At Meter during regular hours	\$	65.00
Disconnect/Reconnect Charges - At Meter After Hours	\$	185.00
Disconnect/Reconnect at pole – During regular hours	\$ \$ \$	185.00
Disconnect/Reconnect at pole – After regular hours	\$	415.00
Install/Remove load control device – During regular hours	\$	65.00
Install/Remove load control device – After regular hours	\$	185.00
Specific Charge for Access to the Power Poles – per pole/year	\$	22.35
Layout fees	\$	200.00

Page 10 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011

Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

### **RETAIL SERVICE CHARGES (if applicable)**

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

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Retail Service Charges refer to services provided by a distributor to retailers or customers related to the supply of competitive electricity

One-time charge, per retailer, to establish the service agreement between the distributor and the retailer Monthly Fixed Charge, per retailer	\$ \$	100.00 20.00
Monthly Variable Charge, per customer, per retailer	\$/cust.	0.50
Distributor-consolidated billing charge, per customer, per retailer	\$/cust.	0.30
Retailer-consolidated billing credit, per customer, per retailer	\$/cust.	(0.30)
Service Transaction Requests (STR)		
Request fee, per request, applied to the requesting party	\$	0.25
Processing fee, per request, applied to the requesting party	\$	0.50
Request for customer information as outlined in Section 10.6.3 and Chapter 11 of the Retail		
Settlement Code directly to retailers and customers, if not delivered electronically through the		
Electronic Business Transaction (EBT) system, applied to the requesting party		
Up to twice a year		no charge
More than twice a year, per request (plus incremental delivery costs)	\$	2.00

### LOSS FACTORS

If the distributor is not capable of prorating changed loss factors jointly with distribution rates, the revised loss factors will be implemented upon the first subsequent billing for each billing cycle.

Total Loss Factor – Secondary Metered Customer < 5,000 kW	1.0344
Total Loss Factor – Secondary Metered Customer > 5,000 kW	1.0180
Total Loss Factor – Primary Metered Customer < 5,000 kW	1.0241
Total Loss Factor – Primary Metered Customer > 5,000 kW	1.0078

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 1 Tab 2 Appendix B

### **APPENDIX B**

**Proposed Tariff Sheets** 

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2011-0178

### **RESIDENTIAL SERVICE CLASSIFICATION**

This classification applies to an account taking electricity at 750 volts or less where the electricity is used exclusively in a separate metered living accommodation. Customers shall be residing in single-dwelling units that consist of a detached house or one unit of a semi-detached, duplex, triplex or quadruplex house, with a residential zoning. Separately metered dwellings within a town house complex or apartment building also qualify as residential customers. All customers are single-phase. Further servicing details are available in the distributor's Conditions of Service.

#### APPLICATION

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#### **MONTHLY RATES AND CHARGES - Delivery Component**

Service Charge \$	12.08
Rate Rider for Incremental Capital (2012) - Effective Until April 30, 2015 \$	0.29
Distribution Volumetric Rate \$/kV	Vh 0.0148
Low Voltage Service Rate - Effective Until \$/kV	Vh 0.0007
Rate Rider for Global Adjustment Sub-Account (2011) - Applicable only for Non-RPP ( \$/kV	Vh 0.0013
Rate Rider for Deferral/Variance Account Disposition (2011) - Effective Until April 30, \$/kV	Vh 0.0011
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Recovery (2012) - Effect \$/kV	Vh 0.0003
Rate Rider for Tax Change (2012) - Effective Until April 30, 2013 \$/kV	Vh -0.0001
Rate Rider for Incremental Capital (2012) - Effective Until April 30, 2015 \$/kV	Vh 0.0004
Retail Transmission Rate – Network Service Rate \$/kV	Vh 0.0059
Retail Transmission Rate – Line and Transformation Connection Service Rate \$/kV	Vh 0.005

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013

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EB-2011-0178

### **RESIDENTIAL SERVICE CLASSIFICATION**

This classification applies to an account taking electricity at 750 volts or less where the electricity is used exclusively in a separate metered living accommodation. Customers shall be residing in single-dwelling units that consist of a detached house or one unit of a semi-detached, duplex, triplex or quadruplex house, with a residential zoning. Separately metered dwellings within a town house complex or apartment building also qualify as residential customers. All customers are single-phase. Further servicing details are available in the distributor's Conditions of Service.

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MONTHLY RATES AND CHARGES - Delivery Component		
Service Charge	\$	12.08
Rate Rider for Incremental Capital (2012) - Effective Until April 30, 2015	\$	0.29
Distribution Volumetric Rate	\$/kWh	0.0148
Low Voltage Service Rate - Effective Until	\$/kWh	0.0007
Rate Rider for Global Adjustment Sub-Account (2011) - Applicable only for Non-RPF	°(\$∕kWh	0.0013
Rate Rider for Deferral/Variance Account Disposition (2011) - Effective Until April 30	), \$/kWh	0.0011
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Recovery (2012) - Effective	cti \$/kWh	0.0003
Rate Rider for Tax Change (2012) - Effective Until April 30, 2013	\$/kWh	-0.0001
Rate Rider for Incremental Capital (2012) - Effective Until April 30, 2015	\$/kWh	0.0004
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0059
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.005

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

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EB-2011-0178

### **GENERAL SERVICE 50 TO 4,999 KW SERVICE CLASSIFICATION**

This classification refers to a non residential account whose monthly average peak demand is equal to or greater than, or is forecast to be equal to or greater than, 50 kW but less than 5,000 kW. Further servicing details are available in the distributor's Conditions of Service.

#### **APPLICATION**

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#### **MONTHLY RATES AND CHARGES - Delivery Component**

Service Charge	\$	269.49
Rate Rider for Incremental Capital (2012) - Effective Until April 30, 2015 \$		6.39
Distribution Volumetric Rate	\$/kW	1.9305
Low Voltage Service Rate - Effective Until	\$/kW	0.252
Rate Rider for Global Adjustment Sub-Account (2011) – Applicable only for Non-RPP (\$/kW		0.4946
Rate Rider for Deferral/Variance Account Disposition (2011) - Effective Until April 30, \$/kW		-0.0021
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Recovery (2012) - Effecti \$/kW		0.121
Rate Rider for Tax Change (2012) - Effective Until April 30, 2013	\$/kW	-0.0106
Rate Rider for Incremental Capital (2012) - Effective Until April 30, 2015 \$/kW		0.0458
Retail Transmission Rate – Network Service Rate	\$/kW	2.3645
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.9863

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

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EB-2011-0178

### LARGE USE SERVICE CLASSIFICATION

This classification refers to an account whose monthly average peak demand is equal to or greater than, or is forecast to be equal to or greater than, 5,000 kW. Further servicing details are available in the distributor's Conditions of Service.

#### **APPLICATION**

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#### **MONTHLY RATES AND CHARGES - Delivery Component**

Service Charge	\$	4968.61
Rate Rider for Incremental Capital (2012) - Effective Until April 30, 2015	\$	117.75
Distribution Volumetric Rate	\$/kW	1.0136
Low Voltage Service Rate - Effective Until	\$/kW	0.3036
Rate Rider for Global Adjustment Sub-Account (2011) – Applicable only for Non-RPP (\$/kW		0.6827
Rate Rider for Deferral/Variance Account Disposition (2011) - Effective Until April 30, \$/kW		-0.037
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Recovery (2012) - Effecti \$/kW		0.0009
Rate Rider for Tax Change (2012) - Effective Until April 30, 2013	\$/kW	-0.0049
Rate Rider for Incremental Capital (2012) - Effective Until April 30, 2015	\$/kW	0.024
Retail Transmission Rate – Network Service Rate	\$/kW	2.849
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	2.3934

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25
This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2011-0178

### UNMETERED SCATTERED LOAD SERVICE CLASSIFICATION

This classification refers to an account taking electricity at 750 volts or less whose monthly average peak demand is less than, or is forecast to be less than, 50 kW and the consumption is unmetered. Such connections include cable TV power packs, bus shelters, telephone booths, traffic lights, railway crossings, etc. The customer will provide detailed manufacturer information/documentation with regard to electrical demand/consumption of the proposed unmetered load. Further servicing details are available in the distributor's Conditions of Service.

#### **APPLICATION**

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

#### **MONTHLY RATES AND CHARGES - Delivery Component**

Service Charge \$	5 11	.11
Rate Rider for Incremental Capital (2012) - Effective Until April 30, 2015 \$	; O	.26
Distribution Volumetric Rate \$/	3/kWh 0.01	135
Low Voltage Service Rate - Effective Until \$/	S/kWh 0.00	207
Rate Rider for Global Adjustment Sub-Account (2011) - Applicable only for Non-RPP (\$/	S/kWh 0.00	013
Rate Rider for Deferral/Variance Account Disposition (2011) - Effective Until April 30, \$/	S/kWh 0.00	207
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Recovery (2012) - Effect \$/	S/kWh 0.00	201
Rate Rider for Tax Change (2012) - Effective Until April 30, 2013 \$/	S/kWh -0.00	201
Rate Rider for Incremental Capital (2012) - Effective Until April 30, 2015 \$/	S/kWh 0.00	203
Retail Transmission Rate – Network Service Rate \$/	S/kWh 0.00	059
Retail Transmission Rate – Line and Transformation Connection Service Rate \$/	S/kWh 0.0	005

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2011-0178

### STREET LIGHTING SERVICE CLASSIFICATION

This classification refers to an account for roadway lighting with a Municipality, Regional Municipality, Ministry of Transportation and private roadway lighting operation, controlled by photo cells. The consumption for these customers will be based on the calculated connected load times the required lighting times established in the approved OEB street lighting load shape template. Further servicing details are available in the distributor's Conditions of Service.

#### **APPLICATION**

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

#### **MONTHLY RATES AND CHARGES - Delivery Component**

Service Charge	\$	0.99
Rate Rider for Incremental Capital (2012) - Effective Until April 30, 2015	\$	0.02
Distribution Volumetric Rate	\$/kW	4.4982
Low Voltage Service Rate - Effective Until	\$/kW	0.182
Rate Rider for Global Adjustment Sub-Account (2011) - Applicable only for Non-RPP	(\$/kW	0.4747
Rate Rider for Deferral/Variance Account Disposition (2011) - Effective Until April 30,	\$/kW	0.0539
Rate Rider for Tax Change (2012) - Effective Until April 30, 2013	\$/kW	-0.0298
Rate Rider for Incremental Capital (2012) - Effective Until April 30, 2015	\$/kW	0.1066
Retail Transmission Rate – Network Service Rate	\$/kW	1.708
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.4347

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2011-0178

### STANDBY POWER - APPROVED ON AN INTERIM BASIS SERVICE

This classification refers to an account that has Load Displacement Generation and requires Kingston Hydro Corporation to provide back-up service. Further servicing details are available in the distributor's Conditions of Service.

#### **APPLICATION**

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean

#### MONTHLY RATES AND CHARGES - Delivery Component

Standby Charge – for a month where power is not provided, the charge is based on the applicable General S $\varepsilon$ 

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2011-0178

### microFIT GENERATOR SERVICE CLASSIFICATION

This classification applies to an electricity generation facility contracted under the Ontario Power Authority's micoFIT program and connected to the distribuor's distribution system. Further servicing details are available in the distributor's Condition of Service.

### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule unless required by the Distributor's Licence or a Code or Order of the Board, and amendments

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, beit under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be noted by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Programs, the Global

#### **MONTHLY RATES AND CHARGES - Delivery Component**

Service Charge

5.25

\$

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

		EB-2011-0178
ALLOWANCES		
Transformer Allowance for Ownership - per kW of billing demand/month	\$/kW	(0.60)
Primary Metering Allowance for transformer losses – applied to measured demand	an %	(1.00)

### SPECIFIC SERVICE CHARGES

### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule

No charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

#### **Customer Administration**

Arrears certificate	\$	15.00
Statement of account	\$	15.00
Request for other billing information	\$	15.00
Account history	\$	15.00
Returned cheque charge (plus bank charges)	\$	15.00
Legal letter charge	\$	15.00
Account set up charge/change of occupancy charge (plus credit agency costs if app	o \$	15.00
Special meter reads	\$	30.00
Meter dispute charge plus Measurement Canada fees (if meter found correct)	\$	30.00
Non-Payment of Account		
Late Payment - per month	%	1.50
Late Payment - per annum	%	19.56
Disconnect/Reconnect at meter - during regular hours	\$	65.00
Disconnect/Reconnect at meter - after regular hours	\$	185.00
Disconnect/Reconnect at pole - during regular hours	\$	185.00
Disconnect/Reconnect at pole - after regular hours	\$	415.00
Install/Remove load control device - during regular hours	\$	65.00
Install/Remove load control device - after regular hours	\$	185.00
Specific Charge for Access to the Power Poles \$/pole/year	\$	22.35

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors **RETAIL SERVICE CHARGES (if applicable)** 

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

Retail Service Charges refer to services provided by a distributor to retailers or customers related to the supply of competitive electricity

One-time charge, per retailer, to establish the service agreement between the distri	\$	100.00
Monthly Fixed Charge, per retailer	\$	20.00
Monthly Variable Charge, per customer, per retailer	\$/cust.	0.50
Distributor-consolidated billing charge, per customer, per retailer	\$/cust.	0.30
Retailer-consolidated billing credit, per customer, per retailer	\$/cust.	(0.30)
Service Transaction Requests (STR)		
Request fee, per request, applied to the requesting party	\$	0.25
Processing fee, per request, applied to the requesting party	\$	0.50
Request for customer information as outlined in Section 10.6.3 and Chapter 11 of the	ne Retail	
Settlement Code directly to retailers and customers, if not delivered electronically th	rough the	
Electronic Business Transaction (EBT) system, applied to the requesting party		
Up to twice a year	\$	no charge
More than twice a year, per request (plus incremental delivery costs)	\$	2.00

#### LOSS FACTORS

If the distributor is not capable of prorating changed loss factors jointly with distribution rates, the revised loss factor will be implemented upon the first subsequent billing for each billing cycle.

Total Loss Factor – Secondary Metered Customer < 5,000 kW	1.0344
Total Loss Factor – Secondary Metered Customer > 5,000 kW	1.0180
Total Loss Factor – Primary Metered Customer < 5,000 kW	1.0241
Total Loss Factor – Primary Metered Customer > 5,000 kW	1.0078

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 1 Tab 2 Appendix C

### **APPENDIX C**

**Customer Bill Impacts** 



#### **Rate Class**

#### Residential

Monthly Rates and Charges	Current Rate	Applied For Rate
Service Charge	12.06	12.08
Smart Meter Funding Adder	1.00	-
Service Charge Rate Rider(s)	0.28	0.29
Distribution Volumetric Rate	0.01480	0.01483
Distribution Volumetric Rate Rider(s)	0.00100	0.00170
Low Voltage Volumetric Rate	0.00070	0.00070
Retail Transmission Rate – Network Service Rate	0.00570	0.00590
Retail Transmission Rate – Line and Transformation Connection Service Rate	0.00500	0.00500
Wholesale Market Service Rate	0.0052	0.0052
Rural Rate Protection Charge	0.0013	0.0013
Standard Supply Service – Administration Charge (if applicable)	0.25	0.25
Debt Retirement Charge (DRC)	0.0070	0.0070
Loss Factor	1.0344	1.0344

Consumption	0	kWh	0	kW		<b>Current Loss Fac</b>	tor	1.0344	
		kWh	Load Factor	0.0%	]	Proposed Loss F	actor	1.0344	
Residential	Volume	Current Rate (\$)	Current Charge (\$)	Volume	Proposed Rate (\$)	Proposed Charge (\$)	Change (\$)	Change (%)	% of Total Bill
Energy First Tier (kWh)	0.00	0.0680	0.00	0	0.0680	0.00	0.00	0.00%	0.00%
Energy Second Tier (kWh)			0.00			0.00	0.00	0.00%	0.00%
Sub-Total: Energy			0.00			0.00	0.00	0.00%	0.00%
Service Charge	1	12.06	12.06	1	12.08	12.08	0.02	0.18%	10.17%
Service Charge Rate Rider(s)	1	1.28	1.28	1	0.29	0.29	-0.99	(77.34)%	0.24%
Distribution Volumetric Rate	0	0.0148	0.00	0	0.0148	0.00	0.00	0.00%	0.00%
Low Voltage Volumetric Rate	0	0.0007	0.00	0	0.0007	0.00	0.00	0.00%	0.00%
Distribution Volumetric Rate Rider(s)	0	0.0010	0.00	0	0.0017	0.00	0.00	0.00%	0.00%
Total: Distribution			13.34			12.37	-0.97	(7.26)%	10.41%
Retail Transmission Rate – Network Service Rate	0.00	0.0057	0.00	0.00	0.0059	0.00	0.00	0.00%	0.00%
Retail Transmission Rate – Line and Transformation Connection Service Rate	0.00	0.0050	0.00	0.00	0.0050	0.00	0.00	0.00%	0.00%
Total: Retail Transmission			0.00			0.00	0.00	0.00%	0.00%
Sub-Total: Delivery (Distribution and Retail Transmission)			13.34			12.37	-0.97	(7.26)%	10.41%
Wholesale Market Service Rate	0.00	0.0052	0.00	0.00	0.0052	0.00	0.00	0.00%	0.00%
Rural Rate Protection Charge	0.00	0.0013	0.00	0.00	0.0013	0.00	0.00	0.00%	0.00%
Standard Supply Service – Administration Charge (if applicable)	1	0.25	0.25	1	0.25	0.25	0.00	0.00%	0.21%
Sub-Total: Regulatory			0.25			0.25			0.21%
Debt Retirement Charge (DRC)	0.00	0.00700	0.00	0	0.0070	0.00	0.00	0.00%	0.00%
Total Bill before Taxes			13.59			12.62	-0.97	(7.13)%	10.62%
HST		13%	1.77		13%	1.64	-0.13	(7.13)%	1.38%
Total Bill			15.36			14.26	-1.09	(7.13)%	12.00%
Ontario Clean Energy Benefit (OCEB)		(10%)	-1.54		(10%)	-1.43			
Total Bill (less OCEB)			13.82			12.84	(0.98)	(7.13)%	

Contario Energy Board 3<sup>RD</sup> Generation Incentive Regulation Model



Contario Energy Board 3<sup>RD</sup> Generation Incentive Regulation Model

Kingston Hydro Corporation - EB-2011-0178

#### Rate Class

### General Service Less Than 50 kW

Monthly Rates and Charges	Current Rate	Applied For Rate
Service Charge	24.83	24.87
Smart Meter Funding Adder	1.00	-
Service Charge Rate Rider(s)	0.68	0.59
Distribution Volumetric Rate	0.01030	0.01032
Distribution Volumetric Rate Rider(s)	(0.00070)	0.00040
Low Voltage Volumetric Rate	0.00060	0.00060
Retail Transmission Rate – Network Service Rate	0.00520	0.00540
Retail Transmission Rate – Line and Transformation Connection Service Rate	0.00460	0.00460
Wholesale Market Service Rate	0.0052	0.0052
Rural Rate Protection Charge	0.0013	0.0013
Standard Supply Service – Administration Charge (if applicable)	0.25	0.25
Debt Retirement Charge (DRC)	0.0070	0.0070
Loss Factor	1.0344	1.0344

Consumption	0	kWh	0	kW		<b>Current Loss Fac</b>	tor	1.0344	
		kWh	Load Factor	0.0%	]	Proposed Loss F	actor	1.0344	]
General Service Less Than 50 kW	Volume	Current Rate (\$)	Current Charge (\$)	Volume	Proposed Rate (\$)	Proposed Charge (\$)	Change (\$)	Change (%)	% of Total Bill
Energy First Tier (kWh)	0.00	0.0680	0.00	0	0.0680	0.00	0.00	0.00%	0.00%
Energy Second Tier (kWh)			0.00			0.00	0.00	0.00%	0.00%
Sub-Total: Energy			0.00			0.00	0.00	0.00%	0.00%
Service Charge	1	24.83	24.83	1	24.87	24.87	0.04	0.18%	8.69%
Service Charge Rate Rider(s)	1	1.68	1.68	1	0.59	0.59	-1.09	(64.88)%	0.21%
Distribution Volumetric Rate	0	0.0103	0.00	0	0.0103	0.00	0.00	0.00%	0.00%
Low Voltage Volumetric Rate	0	0.0006	0.00	0	0.0006	0.00	0.00	0.00%	0.00%
Distribution Volumetric Rate Rider(s)	0	(0.0007)	0.00	0	0.0004	0.00	0.00	0.00%	0.00%
Total: Distribution			26.51			25.46	-1.05	(3.94)%	8.90%
Retail Transmission Rate – Network Service Rate	0.00	0.0052	0.00	0.00	0.0054	0.00	0.00	0.00%	0.00%
Retail Transmission Rate – Line and Transformation Connection Service Rate	0.00	0.0046	0.00	0.00	0.0046	0.00	0.00	0.00%	0.00%
Total: Retail Transmission			0.00			0.00	0.00	0.00%	0.00%
Sub-Total: Delivery (Distribution and Retail Transmission)			26.51			25.46	-1.05	(3.94)%	8.90%
Wholesale Market Service Rate	0.00	0.0052	0.00	0.00	0.0052	0.00	0.00	0.00%	0.00%
Rural Rate Protection Charge	0.00	0.0013	0.00	0.00	0.0013	0.00	0.00	0.00%	0.00%
Standard Supply Service – Administration Charge (if applicable)	1	0.25	0.25	1	0.25	0.25	0.00	0.00%	0.09%
Sub-Total: Regulatory			0.25			0.25			0.09%
Debt Retirement Charge (DRC)	0.00	0.00700	0.00	0	0.0070	0.00	0.00	0.00%	0.00%
Total Bill before Taxes			26.76			25.71	-1.05	(3.91)%	8.98%
HST		13%	3.48		13%	3.34	-0.14	(3.91)%	1.17%
Total Bill			30.24			29.06	-1.18	(3.91)%	10.15%
Ontario Clean Energy Benefit (OCEB)		(10%)	-3.02		(10%)	-2.91			
Total Bill (less OCEB)		•	27.21			26.15	(1.06)	(3.91)%	



Ontario Energy Board <sup>3RD</sup> Generation Incentive Regulation Model

Kingston Hydro Corporation - EB-2011-0178

#### **Rate Class**

### General Service 50 to 4,999 kW

Monthly Rates and Charges	Current Rate	Applied For Rate
Service Charge	269.01	269.49
Smart Meter Funding Adder	1.00	-
Service Charge Rate Rider(s)	6.78	6.39
Distribution Volumetric Rate	1.92700	1.93047
Distribution Volumetric Rate Rider(s)	(0.39220)	0.15620
Low Voltage Volumetric Rate	0.25200	0.25200
Retail Transmission Rate – Network Service Rate	2.27970	2.36450
Retail Transmission Rate – Line and Transformation Connection Service Rate	1.98130	1.98630
Wholesale Market Service Rate	0.0052	0.0052
Rural Rate Protection Charge	0.0013	0.0013
Standard Supply Service – Administration Charge (if applicable)	0.25	0.25
Debt Retirement Charge (DRC)	0.0070	0.0070
Loss Factor	1.0241	1.0241

Consumption	1,095,000	kWh	2,500	kW		Current Loss Fac	tor	1.0241	
		kWh	Load Factor	<u>60.0%</u>		Proposed Loss F	actor	1.0241	
General Service 50 to 4,999 kW	Volume	Current Rate (\$)	Current Charge (\$)	Volume	Proposed Rate (\$)	Proposed Charge (\$)	Change (\$)	Change (%)	% of Total Bill
Energy First Tier (kWh)	1,121,389.50	0.0680	76,254.49	1,121,390	0.0680	76,254.49	0.00	0.00%	24438.06%
Energy Second Tier (kWh)			0.00			0.00	0.00	0.00%	0.00%
Sub-Total: Energy			76,254.49			76,254.49	0.00	0.00%	24438.06%
Service Charge	1	269.01	269.01	1	269.49	269.49	0.48	0.18%	86.37%
Service Charge Rate Rider(s)	1	7.78	7.78	1	6.39	6.39	-1.39	(17.87)%	2.05%
Distribution Volumetric Rate	2,500	1.9270	4,817.50	2,500	1.9305	4,826.17	8.67	0.18%	1546.69%
Low Voltage Volumetric Rate	2,500	0.2520	630.00	2,500	0.2520	630.00	0.00	0.00%	201.90%
Distribution Volumetric Rate Rider(s)	2,500	(0.3922)	(980.50)	2,500	0.1562	390.50	1,371.00	(139.83)%	125.15%
Total: Distribution			4,743.79			6,122.56	1,378.77	29.06%	1962.16%
Retail Transmission Rate – Network Service Rate	2,560.25	2.2797	5,836.60	2,560.25	2.3645	6,053.71	217.11	3.72%	1940.10%
Retail Transmission Rate – Line and Transformation Connection Service Rate	2,560.25	1.9813	5,072.62	2,560.25	1.9863	5,085.42	12.80	0.25%	1629.78%
Total: Retail Transmission			10,909.23			11,139.14	229.91	2.11%	3569.87%
Sub-Total: Delivery (Distribution and Retail Transmission)			15,653.02			17,261.69	1,608.68	10.28%	5532.03%
Wholesale Market Service Rate	1,121,389.50	0.0052	5,831.23	1,121,389.50	0.0052	5,831.23	0.00	0.00%	1868.79%
Rural Rate Protection Charge	1,121,389.50	0.0013	1,457.81	1,121,389.50	0.0013	1,457.81	0.00	0.00%	467.20%
Standard Supply Service – Administration Charge (if applicable)	1	0.25	0.25	1	0.25	0.25	0.00	0.00%	0.08%
Sub-Total: Regulatory			7,289.28			7,289.28			2336.07%
Debt Retirement Charge (DRC)	1,095,000.00	0.00700	7,665.00	1,095,000	0.0070	7,665.00	0.00	0.00%	2456.48%
Total Bill before Taxes			106,861.78			108,470.46	1,608.68	1.51%	34762.64%
HST		13%	13,892.03		13%	14,101.16	209.13	1.51%	4519.14%
Total Bill			120,753.81			122,571.62	1,817.80	1.51%	39281.79%
Ontario Clean Energy Benefit (OCEB)		(10%)	-12,075.38		(10%)	-12,257.16			
Total Bill (less OCEB)			108,678.43			110,314.46	1,636.02	1.51%	



#### **Rate Class**

### Large Use

Monthly Rates and Charges	Current Rate	Applied For Rate
Service Charge	4,959.68	4,968.61
Smart Meter Funding Adder	1.00	-
Service Charge Rate Rider(s)	127.93	117.75
Distribution Volumetric Rate	1.01180	1.01362
Distribution Volumetric Rate Rider(s)	(0.66880)	0.02000
Low Voltage Volumetric Rate	0.30360	0.30360
Retail Transmission Rate – Network Service Rate	2.74680	2.84900
Retail Transmission Rate – Line and Transformation Connection Service Rate	2.38740	2.39340
Wholesale Market Service Rate	0.0052	0.0052
Rural Rate Protection Charge	0.0013	0.0013
Standard Supply Service – Administration Charge (if applicable)	0.25	0.25
Debt Retirement Charge (DRC)	0.0070	0.0070
Loss Factor	1.0078	1.0078

Consumption	2,190,000	kWh	5,000	kW		<b>Current Loss Fac</b>	tor	1.0078	
		kWh	Load Factor	<u>60.0%</u>		Proposed Loss F	actor	1.0078	
Large Use	Volume	Current Rate (\$)	Current Charge (\$)	Volume	Proposed Rate (\$)	Proposed Charge (\$)	Change (\$)	Change (%)	% of Total Bill
Energy First Tier (kWh)	2,207,082.00	0.0680	150,081.58	2,207,082	0.0680	150,081.58	0.00	0.00%	2611.08%
Energy Second Tier (kWh)			0.00			0.00	0.00	0.00%	0.00%
Sub-Total: Energy			150,081.58			150,081.58	0.00	0.00%	2611.08%
Service Charge	1	4,959.68	4,959.68	1	4,968.61	4,968.61	8.93	0.18%	86.44%
Service Charge Rate Rider(s)	1	128.93	128.93	1	117.75	117.75	-11.18	(8.67)%	2.05%
Distribution Volumetric Rate	5,000	1.0118	5,059.00	5,000	1.0136	5,068.11	9.11	0.18%	88.17%
Low Voltage Volumetric Rate	5,000	0.3036	1,518.00	5,000	0.3036	1,518.00	0.00	0.00%	26.41%
Distribution Volumetric Rate Rider(s)	5,000	(0.6688)	(3,344.00)	5,000	0.0200	100.00	3,444.00	(102.99)%	1.74%
Total: Distribution			8,321.61			11,772.46	3,450.85	41.47%	204.81%
Retail Transmission Rate – Network Service Rate	5,039.00	2.7468	13,841.13	5,039.00	2.8490	14,356.11	514.99	3.72%	249.76%
Retail Transmission Rate – Line and Transformation Connection Service Rate	5,039.00	2.3874	12,030.11	5,039.00	2.3934	12,060.34	30.23	0.25%	209.82%
Total: Retail Transmission			25,871.23			26,416.45	545.22	2.11%	459.59%
Sub-Total: Delivery (Distribution and Retail Transmission)			34,192.84			38,188.92	3,996.07	11.69%	664.40%
Wholesale Market Service Rate	2,207,082.00	0.0052	11,476.83	2,207,082.00	0.0052	11,476.83	0.00	0.00%	199.67%
Rural Rate Protection Charge	2,207,082.00	0.0013	2,869.21	2,207,082.00	0.0013	2,869.21	0.00	0.00%	49.92%
Standard Supply Service – Administration Charge (if applicable)	1	0.25	0.25	1	0.25	0.25	0.00	0.00%	0.00%
Sub-Total: Regulatory			14,346.28			14,346.28			249.59%
Debt Retirement Charge (DRC)	2,190,000.00	0.00700	15,330.00	2,190,000	0.0070	15,330.00	0.00	0.00%	266.71%
Total Bill before Taxes			213,950.70			217,946.78	3,996.07	1.87%	3791.79%
HST		13%	27,813.59		13%	28,333.08	519.49	1.87%	492.93%
Total Bill			241,764.29			246,279.86	4,515.56	1.87%	4284.72%
Ontario Clean Energy Benefit (OCEB)		(10%)	-24,176.43		(10%)	-24,627.99			
Total Bill (less OCEB)			217,587.86			221,651.87	4,064.01	1.87%	

Contario Energy Board 3<sup>RD</sup> Generation Incentive Regulation Model



#### Rate Class

### Unmetered Scattered Load

Monthly Rates and Charges	Current Rate	Applied For Rate
Service Charge	11.09	11.11
Smart Meter Funding Adder	-	-
Service Charge Rate Rider(s)	0.36	0.26
Distribution Volumetric Rate	0.01350	0.01352
Distribution Volumetric Rate Rider(s)	(0.00070)	0.00030
Low Voltage Volumetric Rate	0.00070	0.00070
Retail Transmission Rate – Network Service Rate	0.00570	0.00590
Retail Transmission Rate – Line and Transformation Connection Service Rate	0.00500	0.00500
Wholesale Market Service Rate	0.0052	0.0052
Rural Rate Protection Charge	0.0013	0.0013
Standard Supply Service – Administration Charge (if applicable)	0.25	0.25
Debt Retirement Charge (DRC)	0.0070	0.0070
Loss Factor	1.0344	1.0344

Consumption	0	kWh	0	kW		Current Loss Fac	tor	1.0344		
	kWh		Load Factor	0.0%		Proposed Loss Factor		1.0344		
Unmetered Scattered Load	Volume	Current Rate (\$)	Current Charge (\$)	Volume	Proposed Rate (\$)	Proposed Charge (\$)	Change (\$)	Change (%)	% of Total Bill	
Energy First Tier (kWh)	0.00	0.0680	0.00	0	0.0680	0.00	0.00	0.00%	0.00%	
Energy Second Tier (kWh)			0.00			0.00	0.00	0.00%	0.00%	
Sub-Total: Energy			0.00			0.00	0.00	0.00%	0.00%	
Service Charge	1	11.09	11.09	1	11.11	11.11	0.02	0.18%	84.61%	
Service Charge Rate Rider(s)	1	0.36	0.36	1	0.26	0.26	-0.10	(27.78)%	1.98%	
Distribution Volumetric Rate	0	0.0135	0.00	0	0.0135	0.00	0.00	0.00%	0.00%	
Low Voltage Volumetric Rate	0	0.0007	0.00	0	0.0007	0.00	0.00	0.00%	0.00%	
Distribution Volumetric Rate Rider(s)	0	(0.0007)	0.00	0	0.0003	0.00	0.00	0.00%	0.00%	
Total: Distribution			11.45			11.37	-0.08	(0.70)%	86.59%	
Retail Transmission Rate – Network Service Rate	0.00	0.0057	0.00	0.00	0.0059	0.00	0.00	0.00%	0.00%	
Retail Transmission Rate – Line and Transformation Connection Service Rate	0.00	0.0050	0.00	0.00	0.0050	0.00	0.00	0.00%	0.00%	
Total: Retail Transmission			0.00			0.00	0.00	0.00%	0.00%	
Sub-Total: Delivery (Distribution and Retail Transmission)			11.45			11.37	-0.08	(0.70)%	86.59%	
Wholesale Market Service Rate	0.00	0.0052	0.00	0.00	0.0052	0.00	0.00	0.00%	0.00%	
Rural Rate Protection Charge	0.00	0.0013	0.00	0.00	0.0013	0.00	0.00	0.00%	0.00%	
Standard Supply Service – Administration Charge (if applicable)	1	0.25	0.25	1	0.25	0.25	0.00	0.00%	1.90%	
Sub-Total: Regulatory			0.25			0.25			1.90%	
Debt Retirement Charge (DRC)	0.00	0.00700	0.00	0	0.0070	0.00	0.00	0.00%	0.00%	
Total Bill before Taxes			11.70			11.62	-0.08	(0.68)%	88.50%	
HST		13%	1.52		13%	1.51	-0.01	(0.68)%	11.50%	
Total Bill			13.22			13.13	-0.09	(0.68)%	100.00%	
Ontario Clean Energy Benefit (OCEB)		(10%)	-1.32		(10%)	-1.31				
Total Bill (less OCEB)			11.90			11.82	(0.08)	(0.68)%		

Contario Energy Board 3<sup>RD</sup> Generation Incentive Regulation Model



#### **Rate Class**

### Street Lighting

Monthly Rates and Charges	Current Rate	Applied For Rate
Service Charge	0.99	0.99
Smart Meter Funding Adder	-	-
Service Charge Rate Rider(s)	0.02	0.02
Distribution Volumetric Rate	4.49010	4.49818
Distribution Volumetric Rate Rider(s)	(0.05700)	0.07680
Low Voltage Volumetric Rate	0.18200	0.18200
Retail Transmission Rate – Network Service Rate	1.64670	1.70800
Retail Transmission Rate – Line and Transformation Connection Service Rate	1.43110	1.43470
Wholesale Market Service Rate	0.0052	0.0052
Rural Rate Protection Charge	0.0013	0.0013
Standard Supply Service – Administration Charge (if applicable)	0.25	0.25
Debt Retirement Charge (DRC)	0.0070	0.0070
Loss Factor	1.0344	1.0344

Consumption	0	kWh	0	kW		<b>Current Loss Fac</b>	tor	1.0344	
	kWh		Load Factor 0.0%		Proposed Loss Factor		actor	1.0344	J
Street Lighting	Volume	Current Rate (\$)	Current Charge (\$)	Volume	Proposed Rate (\$)	Proposed Charge (\$)	Change (\$)	Change (%)	% of Total Bill
Energy First Tier (kWh)	0.00	0.0680	0.00	0	0.0680	0.00	0.00	0.00%	0.00%
Energy Second Tier (kWh)			0.00			0.00	0.00	0.00%	0.00%
Sub-Total: Energy			0.00			0.00	0.00	0.00%	0.00%
Service Charge	1	0.99	0.99	1	0.99	0.99	0.00	0.18%	69.56%
Service Charge Rate Rider(s)	1	0.02	0.02	1	0.02	0.02	0.00	0.00%	1.40%
Distribution Volumetric Rate	0	4.4901	0.00	0	4.4982	0.00	0.00	0.00%	0.00%
Low Voltage Volumetric Rate	0	0.1820	0.00	0	0.1820	0.00	0.00	0.00%	0.00%
Distribution Volumetric Rate Rider(s)	0	(0.0570)	0.00	0	0.0768	0.00	0.00	0.00%	0.00%
Total: Distribution			1.01			1.01	0.00	0.18%	70.96%
Retail Transmission Rate – Network Service Rate	0.00	1.6467	0.00	0.00	1.7080	0.00	0.00	0.00%	0.00%
Retail Transmission Rate – Line and Transformation Connection Service Rate	0.00	1.4311	0.00	0.00	1.4347	0.00	0.00	0.00%	0.00%
Total: Retail Transmission			0.00			0.00	0.00	0.00%	0.00%
Sub-Total: Delivery (Distribution and Retail Transmission)			1.01			1.01	0.00	0.18%	70.96%
Wholesale Market Service Rate	0.00	0.0052	0.00	0.00	0.0052	0.00	0.00	0.00%	0.00%
Rural Rate Protection Charge	0.00	0.0013	0.00	0.00	0.0013	0.00	0.00	0.00%	0.00%
Standard Supply Service – Administration Charge (if applicable)	1	0.25	0.25	1	0.25	0.25	0.00	0.00%	17.53%
Sub-Total: Regulatory			0.25			0.25			17.53%
Debt Retirement Charge (DRC)	0.00	0.00700	0.00	0	0.0070	0.00	0.00	0.00%	0.00%
Total Bill before Taxes			1.26			1.26	0.00	0.14%	88.50%
HST		13%	0.16		13%	0.16	0.00	0.14%	11.50%
Total Bill			1.42			1.43	0.00	0.14%	100.00%
Ontario Clean Energy Benefit (OCEB)		(10%)	-0.14		(10%)	-0.14			
Total Bill (less OCEB)			1.28			1.28	0.00	0.14%	

Contario Energy Board 3<sup>RD</sup> Generation Incentive Regulation Model



Ontario Energy Board 3<sup>RD</sup> Generation Incentive Regulation Model

Kingston Hydro Corporation - EB-2011-0178

#### Rate Class

### Standby Power - APPROVED ON AN INTERIM BASIS

Monthly Rates and Charges	Current Rate	Applied For Rate
Service Charge	-	-
Smart Meter Funding Adder	-	-
Service Charge Rate Rider(s)	-	-
Distribution Volumetric Rate	0.00000	0.00000
Distribution Volumetric Rate Rider(s)	0.00000	0.00000
Low Voltage Volumetric Rate	0.00000	0.00000
Retail Transmission Rate – Network Service Rate	0.00000	0.00000
Retail Transmission Rate – Line and Transformation Connection Service Rate	0.00000	0.00000
Wholesale Market Service Rate	0.0052	0.0052
Rural Rate Protection Charge	0.0013	0.0013
Standard Supply Service – Administration Charge (if applicable)	0.25	0.25
Debt Retirement Charge (DRC)	0.0070	0.0070
Loss Factor	1.0078	1.0078

Consumption	0	kWh	0	kW		<b>Current Loss Fac</b>	tor	1.0078	
		kWh	Load Factor	0.0%		Proposed Loss F	actor	1.0078	
Standby Power - APPROVED ON	Volume	Current Rate (\$)	Current Charge (\$)	Volume	Proposed Rate (\$)	Proposed Charge (\$)	Change (\$)	Change (%)	% of Total Bill
Energy First Tier (kWh)	0.00	0.0680	0.00	0	0.0680	0.00	0.00	0.00%	0.00%
Energy Second Tier (kWh)			0.00			0.00	0.00	0.00%	0.00%
Sub-Total: Energy			0.00			0.00	0.00	0.00%	0.00%
Service Charge	1	0.00	0.00	1	0.00	0.00	0.00	0.00%	0.00%
Service Charge Rate Rider(s)	1	0.00	0.00	1	0.00	0.00	0.00	0.00%	0.00%
Distribution Volumetric Rate	0	0.0000	0.00	0	0.0000	0.00	0.00	0.00%	0.00%
Low Voltage Volumetric Rate	0	0.0000	0.00	0	0.0000	0.00	0.00	0.00%	0.00%
Distribution Volumetric Rate Rider(s)	0	0.0000	0.00	0	0.0000	0.00	0.00	0.00%	0.00%
Total: Distribution			0.00			0.00	0.00	0.00%	0.00%
Retail Transmission Rate – Network Service Rate	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.00%	0.00%
Retail Transmission Rate – Line and Transformation Connection Service Rate	0.00	0.0000	0.00	0.00	0.0000	0.00	0.00	0.00%	0.00%
Total: Retail Transmission			0.00			0.00	0.00	0.00%	0.00%
Sub-Total: Delivery (Distribution and Retail Transmission)			0.00			0.00	0.00	0.00%	0.00%
Wholesale Market Service Rate	0.00	0.0052	0.00	0.00	0.0052	0.00	0.00	0.00%	0.00%
Rural Rate Protection Charge	0.00	0.0013	0.00	0.00	0.0013	0.00	0.00	0.00%	0.00%
Standard Supply Service – Administration Charge (if applicable)	1	0.25	0.25	1	0.25	0.25	0.00	0.00%	88.50%
Sub-Total: Regulatory			0.25			0.25			88.50%
Debt Retirement Charge (DRC)	0.00	0.00700	0.00	0	0.0070	0.00	0.00	0.00%	0.00%
Total Bill before Taxes			0.25			0.25	0.00	0.00%	88.50%
HST		13%	0.03		13%	0.03	0.00	0.00%	11.50%
Total Bill			0.28			0.28	0.00	0.00%	100.00%
Ontario Clean Energy Benefit (OCEB)		(10%)	-0.03		(10%)	-0.03			
Total Bill (less OCEB)			0.25			0.25	0.00	0.00%	

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 1 Tab 2 Appendix D

### APPENDIX D

**Reference Documents** 

Page 1 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011 Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

### **RESIDENTIAL SERVICE CLASSIFICATION**

This classification applies to an account taking electricity at 750 volts or less where the electricity is used exclusively in a separate metered living accommodation. Customers shall be residing in single-dwelling units that consist of a detached house or one unit of a semi-detached, duplex, triplex or quadruplex house, with a residential zoning. Separately metered dwellings within a town house complex or apartment building also qualify as residential customers. All customers are single-phase. Further servicing details are available in the distributor's Conditions of Service.

### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge Smart Meter Funding Adder	\$ \$	12.06 1.00
Rate Rider for Recovery of Late Payment Penalty Litigation Costs – effective until May 31, 2012	\$	0.25
Distribution Volumetric Rate	\$/kWh	0.0148
Low Voltage Service Rate	\$/kWh	0.0007
Rate Rider for Global Adjustment Sub-Account Disposition (2010) – effective until April 30, 2012		
Applicable only for Non-RPP Customers	\$/kWh	0.0015
Rate Rider for Global Adjustment Sub-Account Disposition (2011) – effective until April 30, 2013		
Applicable only for Non-RPP Customers	\$/kWh	0.0013
Rate Rider for Deferral/Variance Account Disposition (2010) – effective until April 30, 2012	\$/kWh	(0.0031)
Rate Rider for Deferral/Variance Account Disposition (2011) – effective until April 30, 2013	\$/kWh	Ò.0011 ´
Rate Rider for Foregone Incremental Revenue (2011) – effective until May 31, 2012	\$/kWh	0.0016
Lost Revenue Adjustment Mechanism Rate Rider (2011) – effective until May 31, 2012	\$/kWh	0.0012
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0057
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0050

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Page 2 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011 Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

### **GENERAL SERVICE LESS THAN 50 kW SERVICE CLASSIFICATION**

This classification refers to a non residential account taking electricity at 750 volts or less whose monthly average peak demand is less than, or is forecast to be less than, 50 kW. Further servicing details are available in the distributor's Conditions of Service.

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

#### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge Smart Meter Funding Adder	\$ \$	24.83 1.00
Rate Rider for Recovery of Late Payment Penalty Litigation Costs – effective until May 31, 2012	\$	0.62
Distribution Volumetric Rate	\$/kWh	0.0103
Low Voltage Service Rate	\$/kWh	0.0006
Rate Rider for Global Adjustment Sub-Account Disposition (2010) – effective until April 30, 2012		
Applicable only for Non-RPP Customers	\$/kWh	0.0015
Rate Rider for Global Adjustment Sub-Account Disposition (2011) – effective until April 30, 2013		
Applicable only for Non-RPP Customers	\$/kWh	0.0013
Rate Rider for Foregone Incremental Revenue (2011) – effective until May 31, 2012	\$/kWh	0.0004
Rate Rider for Deferral/Variance Account Disposition (2010) – effective until April 30, 2012	\$/kWh	(0.0020)
Rate Rider for Deferral/Variance Account Disposition (2011) – effective until April 30, 2013	\$/kWh	0.0004
Lost Revenue Adjustment Mechanism Rate Rider (2011) – effective until May 31, 2012	\$/kWh	0.0004
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0052
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0046

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Page 3 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011 Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

### **GENERAL SERVICE 50 to 4,999 kW SERVICE CLASSIFICATION**

This classification refers to a non residential account whose monthly average peak demand is equal to or greater than, or is forecast to be equal to or greater than, 50 kW but less than 5,000 kW. Further servicing details are available in the distributor's Conditions of Service.

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

#### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge	\$	270.33
Smart Meter Funding Adder	\$	1.00
Rate Rider for Recovery of Late Payment Penalty Litigation Costs – effective until May 31, 2012	\$	6.10
Distribution Volumetric Rate	\$/kW	1.9191
Low Voltage Service Rate	\$/kW	0.2520
Rate Rider for Global Adjustment Sub-Account Disposition (2010) – effective until April 30, 2012		
Applicable only for Non-RPP Customers	\$/kW	0.5972
Rate Rider for Global Adjustment Sub-Account Disposition (2011) – effective until April 30, 2013		
Applicable only for Non-RPP Customers	\$/kW	0.4946
Rate Rider for Foregone Incremental Revenue (2011) – effective until May 31, 2012	\$/kW	0.1335
Rate Rider for Deferral/Variance Account Disposition (2010) – effective until April 30, 2012	\$/kW	(0.5793)
Rate Rider for Deferral/Variance Account Disposition (2011) – effective until April 30, 2013	\$/kW	(0.0021)
Lost Revenue Adjustment Mechanism Rate Rider (2011) – effective until May 31, 2012	\$/kW	0.0368
Retail Transmission Rate – Network Service Rate	\$/kW	2.2797
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.9813

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Page 4 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011 Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

### LARGE USE SERVICE CLASSIFICATION

This classification refers to an account whose monthly average peak demand is equal to or greater than, or is forecast to be equal to or greater than, 5,000 kW. Further servicing details are available in the distributor's Conditions of Service.

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

#### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge Smart Meter Funding Adder	\$ \$	4,959.68 1.00
Rate Rider for Recovery of Late Payment Penalty Litigation Costs – effective until May 31, 2012	\$	115.14
Distribution Volumetric Rate	\$/kW	1.0118
Low Voltage Service Rate	\$/kW	0.3036
Rate Rider for Global Adjustment Sub-Account Disposition (2010) – effective until April 30, 2012		
Applicable only for Non-RPP Customers	\$/kW	0.7883
Rate Rider for Global Adjustment Sub-Account Disposition (2011) – effective until April 30, 2013		
Applicable only for Non-RPP Customers	\$/kW	0.6827
Rate Rider for Foregone Incremental Revenue (2011) – effective until May 31, 2012	\$/kW	0.0921
Rate Rider for Deferral/Variance Account Disposition (2010) – effective until April 30, 2012	\$/kW	(0.7345)
Rate Rider for Deferral/Variance Account Disposition (2011) – effective until April 30, 2013	\$/kW	(0.0370)
Lost Revenue Adjustment Mechanism Rate Rider (2011) – effective until May 31, 2012	\$/kW	0.0003
Retail Transmission Rate – Network Service Rate	\$/kW	2.7468
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	2.3874

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Page 5 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011 Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

### UNMETERED SCATTERED LOAD SERVICE CLASSIFICATION

This classification refers to an account taking electricity at 750 volts or less whose monthly average peak demand is less than, or is forecast to be less than, 50 kW and the consumption is unmetered. Such connections include cable TV power packs, bus shelters, telephone booths, traffic lights, railway crossings, etc. The customer will provide detailed manufacturer information/documentation with regard to electrical demand/consumption of the proposed unmetered load. Further servicing details are available in the distributor's Conditions of Service.

#### **APPLICATION**

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

#### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge (per customer)	\$	11.09
Rate Rider for Recovery of Late Payment Penalty Litigation Costs – effective until May 31, 2012	\$	0.32
Distribution Volumetric Rate	\$/kWh	0.0135
Low Voltage Service Rate	\$/kWh	0.0007
Rate Rider for Global Adjustment Sub-Account Disposition (2010) – effective until April 30, 2012		
Applicable only for Non-RPP Customers	\$/kWh	0.0015
Rate Rider for Global Adjustment Sub-Account Disposition (2011) – effective until April 30, 2013		
Applicable only for Non-RPP Customers	\$/kWh	0.0013
Rate Rider for Foregone Incremental Revenue (2011) – effective until April 30, 2012	\$/kWh	0.0009
Rate Rider for Deferral/Variance Account Disposition (2010) – effective until April 30, 2012	\$/kWh	(0.0024)
Rate Rider for Deferral/Variance Account Disposition (2011) – effective until April 30, 2013	\$/kWh	0.0007
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0057
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.0050

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Page 6 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011 Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

# STANDBY POWER SERVICE CLASSIFICATION – APPROVED ON AN INTERIM BASIS

This classification refers to an account that has Load Displacement Generation and requires Kingston Hydro Corporation to provide back-up service. Further servicing details are available in the distributor's Conditions of Service.

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

#### MONTHLY RATES AND CHARGES

Standby Charge – for a month where power is not provided, the charge is based on the applicable General Service 50 to 4,999 kW or Large Use Distribution Volumetric Charge applied to the contracted amount (e.g. nameplate rating of generation facility).

Page 7 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011 Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

### STREET LIGHTING SERVICE CLASSIFICATION

This classification refers to an account for roadway lighting with a Municipality, Regional Municipality, Ministry of Transportation and private roadway lighting operation, controlled by photo cells. The consumption for these customers will be based on the calculated connected load times the required lighting times established in the approved OEB street lighting load shape template. Further servicing details are available in the distributor's Conditions of Service.

### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

#### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge (per connection)	\$	0.99
Rate Rider for Recovery of Late Payment Penalty Litigation Costs – effective until May 31, 2012	\$	0.02
Distribution Volumetric Rate	\$/kW	4.4901
Low Voltage Service Rate	\$/kW	0.1820
Rate Rider for Global Adjustment Sub-Account Disposition (2011) – effective until April 30, 2013		
Applicable only for Non-RPP Customers	\$/kW	0.4747
Rate Rider for Foregone Incremental Revenue (2011) – effective until May 31, 2012	\$/kW	0.3860
Rate Rider for Deferral/Variance Account Disposition (2010) – effective until April 30, 2012	\$/kW	(0.5398)
Rate Rider for Deferral/Variance Account Disposition (2011) – effective until April 30, 2012	\$/kW	0.0539
Retail Transmission Rate – Network Service Rate	\$/kW	1.6467
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.4311

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Page 8 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011 Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

### microFIT GENERATOR SERVICE CLASSIFICATION

This classification applies to an electricity generation facility contracted under the Ontario Power Authority's microFIT program and connected to the distributor's distribution system. Further servicing details are available in the distributor's Conditions of Service.

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

#### **MONTHLY RATES AND CHARGES – Delivery Component**

Service Charge

\$ 5.25

Page 9 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011 Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

### ALLOWANCES

EB-2010-0136

Transformer Allowance for Ownership - per kW of billing demand/month	\$/kW	(0.60)
Primary Metering Allowance for transformer losses – applied to measured demand and energy	%	(1.00)

### SPECIFIC SERVICE CHARGES

#### **APPLICATION**

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

Customer Administration		
Arrears Certificate	\$	15.00
Statement of Account	\$	15.00
Request for other billing information	\$	15.00
Account history	\$	15.00
Returned Cheque (plus bank charges)	\$	15.00
Legal letter charge	\$	15.00
Account set-up charge/change of occupancy charge (plus agency costs if applicable)	\$	15.00
Special meter reads	\$	30.00
Meter dispute charge plus Measurement Canada fees (if meter found correct)	\$	30.00
Non-Payment of Account		
Late Payment - per month	%	1.50
Late Payment - per annum	%	19.56
Disconnect/Reconnect Charges - At Meter during regular hours	\$	65.00
Disconnect/Reconnect Charges - At Meter After Hours	\$	185.00
Disconnect/Reconnect at pole – During regular hours	\$	185.00
Disconnect/Reconnect at pole – After regular hours	\$	415.00
Install/Remove load control device – During regular hours	\$	65.00
Install/Remove load control device – After regular hours	\$	185.00
Specific Charge for Access to the Power Poles – per pole/year	\$	22.35
Layout fees	\$	200.00

Page 10 of 10

### Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2011 Implementation Date August 1, 2011

This schedule supersedes and replaces all previously approved schedules of Rates, Charges and Loss Factors

EB-2010-0136

### **RETAIL SERVICE CHARGES (if applicable)**

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

Retail Service Charges refer to services provided by a distributor to retailers or customers related to the supply of competitive electricity

One-time charge, per retailer, to establish the service agreement between the distributor and the retailer Monthly Fixed Charge, per retailer	\$ \$	100.00 20.00
Monthly Variable Charge, per customer, per retailer	\$/cust.	0.50
Distributor-consolidated billing charge, per customer, per retailer	\$/cust.	0.30
Retailer-consolidated billing credit, per customer, per retailer	\$/cust.	(0.30)
Service Transaction Requests (STR)		
Request fee, per request, applied to the requesting party	\$	0.25
Processing fee, per request, applied to the requesting party	\$	0.50
Request for customer information as outlined in Section 10.6.3 and Chapter 11 of the Retail		
Settlement Code directly to retailers and customers, if not delivered electronically through the		
Electronic Business Transaction (EBT) system, applied to the requesting party		
Up to twice a year		no charge
More than twice a year, per request (plus incremental delivery costs)	\$	2.00

### LOSS FACTORS

If the distributor is not capable of prorating changed loss factors jointly with distribution rates, the revised loss factors will be implemented upon the first subsequent billing for each billing cycle.

Total Loss Factor – Secondary Metered Customer < 5,000 kW	1.0344
Total Loss Factor – Secondary Metered Customer > 5,000 kW	1.0180
Total Loss Factor – Primary Metered Customer < 5,000 kW	1.0241
Total Loss Factor – Primary Metered Customer > 5,000 kW	1.0078

## Kingston Hydro Corporation (ED-2003-0057)

2011 EDR Application (EB-2010-0136) version: 18 "Draft Rate Order" August 20, 2010

### C2 Load Data and Forecast

### Enter historical volume data and projections for 2010-2011

### CUSTOMERS (CONNECTIONS)

Customer Class Name	2005 Actual	2006 EDR	2006	2007	2008
	2000 / lotual	Approved	Actual	Actual	Actual
Residential	22,338	22,553	22,481	22,591	22,938
General Service Less Than 50 kW	3,322	3,351	3,254	3,214	3,269
General Service 50 to 4,999 kW	418	411	428	413	354
Large Use	3	3	3	3	3
Unmetered Scattered Load	160	159	167	162	164
Street Lighting	5,039	5,019	5,087	5,082	5,091
TOTAL	31,280	31,496	31,420	31,465	31,819

### METERED KILOWATT-HOURS (kWh)

Customer Class Name	2005 Actual	2006 EDR	2006	2007	2008
	2005 Actual	Approved	Actual	Actual	Actual
Residential	213,231,097	199,916,887	203,419,312	205,361,403	197,176,338
General Service Less Than 50 kW	92,393,785	89,765,114	87,257,190	87,931,681	93,970,050
General Service 50 to 4,999 kW	280,428,685	279,868,148	281,992,976	275,557,420	274,569,665
Large Use	152,356,156	130,112,634	152,420,284	150,723,902	150,640,722
Unmetered Scattered Load	2,247,498	2,521,588	2,200,491	2,202,849	2,262,490
Street Lighting	3,886,472	3,716,955	3,992,890	3,972,085	4,009,437
TOTAL	744,543,693	705,901,326	731,283,143	725,749,340	722,628,702

### KILOWATTS (kW)

Customer Class Name	2005 Actual	2006 EDR Approved	2006 Actual	2007 Actual	2008 Actual
Residential		Appiored	Aotual	Aotual	Aotual
General Service Less Than 50 kW					
General Service 50 to 4,999 kW	504,537	672,053	553,210	668,428	688,735
Large Use		245,089			
Unmetered Scattered Load					
Street Lighting	11,038	11,323	11,150	11,141	11,195
TOTAL	515,575	928,465	564,360	679,569	699,930

Customer Class Name	Loss Factor
Residential	1.0344
General Service Less Than 50 kW	1.0344
General Service 50 to 4,999 kW	1.0344
Large Use	1.0180
Unmetered Scattered Load	1.0344
Street Lighting	1.0344

Kingston Hydro Corp 2011 EDR Application (EB-20 August 20, 2010

## C2 Load Data and Fc

Enter historical volume d

### CUSTOMERS (CONNECTIONS)

Customer Class Name	2009	2009	2010	2010	2011
Customer Class Name	Actual	Normalized	Normalized	Estimated	Normalized
Residential	23,107	23,107	23,246	23,246	23,386
General Service Less Than 50 kW	3,266	3,266	3,249	3,249	3,244
General Service 50 to 4,999 kW	348	348	347	347	347
Large Use	3	3	3	3	3
Unmetered Scattered Load	163	163	163	163	164
Street Lighting	5,114	5,114	5,134	5,134	5,155
TOTAL	32,001	32,001	32,142	32,142	32,299

### METERED KILOWATT-HOURS (kW

Customer Class Name	2009	2009	2010	2010	2011
	Actual	Normalized	Normalized	Estimated	Normalized
Residential	196,461,750	197,832,202	195,694,457	195,694,457	194,606,362
General Service Less Than 50 kW	93,350,687	92,095,753	91,746,575	91,746,575	93,096,784
General Service 50 to 4,999 kW	270,117,290	266,919,070	262,053,951	262,053,951	259,610,762
Large Use	148,002,869	151,046,565	153,430,724	153,430,724	152,017,673
Unmetered Scattered Load	2,256,949	2,256,949	2,265,977	2,265,977	2,275,040
Street Lighting	3,992,185	3,992,185	4,008,153	4,008,153	4,024,186
TOTAL	714,181,730	714,142,724	709,199,837	709,199,837	705,630,807

### KILOWATTS (kW)

Customer Class Name	2009 Actual	2009 Normalized	2010 Normalized	2010 Estimated	2011 Normalized
Residential					
General Service Less Than 50 kW					
General Service 50 to 4,999 kW	730,263	721,617	708,464	708,464	701,859
Large Use	289,874	295,835	300,505	300,505	297,737
Unmetered Scattered Load					
Street Lighting	11,246	11,246	11,291	11,291	11,336
TOTAL	1,031,383	1,028,698	1,020,260	1,020,260	1,010,932

Customer Class Name				
Residential				
General Service Less Than 50 kW				
General Service 50 to 4,999 kW				
Large Use				
Unmetered Scattered Load				
Street Lighting				

WHOLESALE kWh's <sup>1</sup>					
2010	2011				
Estimated	Normalized				
202,426,346	201,300,821				
94,902,657	96,299,313				
271,068,607	268,541,372				
156,192,477	154,753,991				
2,343,927	2,353,301				
4,146,033	4,162,618				
	2010 Estimated 202,426,346 94,902,657 271,068,607 156,192,477 2,343,927				

<sup>1</sup> Metered kWh's multiplied by Loss Factor



### **Table of Content**

<u>Sheet</u>	<u>Name</u>
Α	Data Input Sheet
1	Rate Base
2	Utility Income
3	Taxes/PILS
4	Capitalization/Cost of Capital
5	Revenue Sufficiency/Deficiency
6	Revenue Requirement
7A	Bill Impacts -Residential
7B	Bill Impacts - GS < 50 kW

#### Notes:

- (1) Pale green cells represent inputs
- (2) Pale yellow cells represent drop=down lists
- (3) Please note that this model uses MACROS. Before starting, please ensure that macros have been enabled.
- (4) Completed versions of the Revenue Requirement Work Form are required to be filed in working Microsoft Excel format.

#### **Copyright**

This Revenue Requirement Work Form Model is protected by copyright and is being made available to you solely for the purpose of preparing or reviewing your draft rate order. 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 to a person that is advising or assisting you in preparing or reviewing your draft rate order. You may use and copy this model to a person that is advising or assisting you in the preparing or other use or dissemination of this model to a person that is advising or assisting you in preparing or reviewing your draft rate order, you must ensure that the person understands and agrees to the restrictions noted above.

APPENDIX J Version: 2.11

### **Revenue Requirement Work Form**



Name of LDC: Kingston Hydro Corporation File Number: EB-2010-0136 Rate Year: 2011

					Data Input				(1
		Initial Application		Adjustments	Argument-in- Chief	(7)	Adjustments	Per Board Decision	
1	Rate Base								
	Gross Fixed Assets (average) Accumulated Depreciation (average) Allowance for Working Capital:	\$49,850,935 (\$16,983,278)	(5)	<mark>(\$770,725)</mark> \$40,752	\$ 49,080,210 -\$ 16,942,526		\$ - (\$433,959)	\$49,080,210 (\$17,376,485)	
	Controllable Expenses Cost of Power Working Capital Rate (%)	\$6,980,907 \$61,518,323 15.00%		\$76,596 \$45,710	\$ 7,057,503 \$ 61,564,033 15.00%		<mark>(\$700,000)</mark> \$2,652,260	\$6,357,503 \$64,216,293 15.00%	
	<b>ö i i i i</b>	13.00 %			13.00%			13.00 %	
2	Utility Income Operating Revenues:								
	Distribution Revenue at Current Rates Distribution Revenue at Proposed Rates Other Revenue:	\$9,540,655 \$12,174,156		\$10,120 (\$114,700)	\$9,550,775 \$12,059,456		\$0 (\$967,419)	\$9,550,775 \$11,092,037	
	Specific Service Charges	\$268,031		\$0	\$268,031		\$0	\$268,031	
	Late Payment Charges Other Distribution Revenue	\$37,901 \$105,546		\$0 \$0	\$37,901 \$105,546		\$0 \$0 \$0	\$37,901 \$105,546	
	Other Income and Deductions	\$213,847		\$58,271	\$272,118		\$U	\$272,118	
	Operating Expenses: OM+A Expenses	\$6,850,907		\$102,734	\$ 6,953,641		(\$726,138)	\$6,227,503	
	Depreciation/Amortization	\$2,042,875		(\$30,660)	\$ 2,012,215		\$ -	\$2,012,215	
	Property taxes	\$130,000		\$ -	\$ 130,000 \$0		\$ -	\$130,000 \$0	
	Capital taxes Other expenses	\$0 \$ -		\$ -	۵¢ 0		\$ -	\$0 \$0	
3	Taxes/PILs								
3	Taxable Income:								
	Adjustments required to arrive at taxable income	\$188,000	(3)		\$214,137			(\$75,962)	
	Utility Income Taxes and Rates:	<b>\$ 107 050</b>			¢ 400 575			¢ 400.005	
	Income taxes (not grossed up) Income taxes (grossed up)	\$497,058 \$692,764			\$483,575 \$673,972			\$400,095 \$557,623	
	Capital Taxes	\$092,704	(6)		\$073,972	(6)		4007,020 \$ -	(
	Federal tax (%)	16.50%	(0)		16.50%	(0)		16.50%	•
	Provincial tax (%)	11.75%			11.75%			11.75%	
	Income Tax Credits	\$ -			\$ -			\$ -	
4	Capitalization/Cost of Capital Capital Structure:								
	Long-term debt Capitalization Ratio (%)	56.0%			56.0%			56.0%	
	Short-term debt Capitalization Ratio (%)	4.0%	(2)		4.0%	(2)		4.0%	
	Common Equity Capitalization Ratio (%) Prefered Shares Capitalization Ratio (%)	40.0%			40.0%			40.0%	
		100.0%			100.0%			100.0%	
	Cost of Capital Long-term debt Cost Rate (%)	5.65%			5.60%			5.01%	
	Short-term debt Cost Rate (%)	2.07%			2.46%			2.46%	
	Common Equity Cost Rate (%)	9.85%			9.85%			9.58%	
	Prefered Shares Cost Rate (%)								
otes	:								
								~	

Notes:

(Rate Base through Revenue Requirement), except for Notes that the utility may wish to use to support the data. Notes should be put on the applicable pages to All inputs are in dollars (\$) except where inputs are individually identified as percentages (%)

(1) (2) (3) (4) (5)

4.0% unless an Applicant has proposed or been approved for another amount.

Net of addbacks and deductions to arrive at taxable income.

Average of Gross Fixed Assets at beginning and end of the Test Year

Average of Accumulated Depreciation at the beginning and end of the Test Year. Enter as a negative amount.

(6) Not applicable as of July 1, 2010

(7) Select option from drop-down list by clicking on cell M10. This columnallows for the application update reflecting the end of discovery or Argument-in-Chief. Also, the outsome of any Settlement Process can be reflected.

#### Revenue Requirement Work Form Name of LDC: Kingston Hydro Corporation

2011

File Number: EB-2010-0136

Rate Year:

**APPENDIX J** 

#### Settlement, Updated Evidence, Argument-in-Chief, Decision shown in separate sequence

							Data Input							
ſ	Application	_	Sett	lement		Update	ed Evidence		Argumen	t-in-Chief		Per Boa	rd Dec	sion
	Initial Application	Ad	justments	Settleme Agreeme		7) Adjustments	Updated Evidence	(8)	Adjustments	Argument-in- Chief	(9)	Adjustments		Per Board Decision
1 Rate Base														
Gross Fixed Assets (average)	\$49,850,935	(	\$1,230,975)	\$ 48,619	960	\$460,250	\$49,080,210		\$ -	\$49,080,210				\$49,080,210
Accumulated Depreciation (average)	(\$16,983,278)		\$50,844	-\$ 16,932		(\$10,092)	(\$16,942,526)		\$-	(\$16,942,526)		(\$433,959)		(\$17,376,485)
Allowance for Working Capital:	(\$10,303,210)	(3)	φ50,044	φ 10,552	,404	(\$10,002)	(\$10,342,320)		Ψ	(\$10,342,320)		(\$400,000)		(\$11,510,400)
Controllable Expenses	\$6,980,907		\$ -	\$ 6,980	907	\$102,734	\$7,083,641		(\$26,138)	\$7,057,503		(\$700,000)		\$6,357,503
Cost of Power	\$61,518,323		(\$67,773)	\$ 61,450		\$-	\$61,450,550		\$113,483	\$61,564,033		\$2,652,260		\$64,216,293
Working Capital Rate (%)	15.00%		(42.,2)		.00%		15.00%		,	15.00%				15.00%
2 <u>Utility Income</u>														
Operating Revenues:														
Distribution Revenue at Current Rates	\$9,540,655		\$10,120	\$9,550		\$0	\$9,550,775		\$0	\$9,550,775		\$0		\$9,550,775
Distribution Revenue at Proposed Rates Other Revenue:	\$12,174,156		(\$136,557)	\$12,037	,599	\$104,103	\$12,141,702		(\$82,246)	\$12,059,456		(\$1,049,665)		\$11,092,037
Specific Service Charges	\$268,031		\$0	\$268	,031	\$0	\$268,031		\$0	\$268,031		\$0		\$268,031
Late Payment Charges	\$37,901		\$0	\$37	,901	\$0	\$37,901		\$0	\$37,901		\$0		\$37,901
Other Distribution Revenue	\$105,546		\$0	\$105	,546	\$0	\$105,546		\$0	\$105,546		\$0		\$105,546
Other Income and Deductions	\$213,847		\$0	\$213	,847	\$58,271	\$272,118		\$0	\$272,118		\$0		\$272,118
Operating Expenses:														
OM+A Expenses	\$6,850,907		\$ -	\$ 6,850	907	\$102,734	\$6,953,641		\$ -	\$6,953,641		(\$726,138)		\$6,227,503
Depreciation/Amortization	\$2,042,875		(\$50,843)	\$ 1,992	,032	\$20,183	\$2,012,215		\$ -	\$2,012,215		\$ -		\$2,012,215
Property taxes	\$130,000		\$-	\$ 130	,000	\$ -	\$130,000		\$ -	\$130,000		\$ -		\$130,000
	\$-			\$	-		\$ -			\$-			\$	-
Other expenses	\$ -		\$ -	\$	-	\$ -	\$ -		\$ -	\$ -			\$	-
3 <u>Taxes/PILs</u>														
Taxable Income:														
Adjustments required to arrive at taxable	\$188,000	(3)		\$216	,948		\$214,136			\$214,137				(\$75,962)
income														
Utility Income Taxes and Rates:					_									
Income taxes (not grossed up)	\$497,058				,987		\$496,375			\$483,575				\$400,095
Income taxes (grossed up)	\$692,764	<i>(</i> <b>-</b> )		\$685			\$691,812	(0)		\$673,972	(0)			\$557,623
Capital Taxes Federal tax (%)		(6)			\$- (6	5)	\$-				(6)			\$-
Provincial tax (%)	16.50% 11.75%				.50% .75%		16.50% 11.75%			16.50% 11.75%				16.50%
Income Tax Credits	11.75%			11	.75% \$-		\$ -			\$ -				11.75% \$ -
Capitalization/Cost of Capita														
Capital Structure:														
Long-term debt Capitalization Ratio (%)	56.0%			5	6.0%		56.0%			56.0%				56.0%
Short-term debt Capitalization Ratio (%)	4.0%				4.0% (2	2)	4.0%			4.0%				4.0%
Common Equity Capitalization Ratio (%)	40.0%	. /			0.0%	Í	40.0%			40.0%				40.0%
Prefered Shares Capitalization Ratio (%														
•	100.0%			10	0.0%		100.0%			100.0%				100.0%
Cost of Capital														
Long-term debt Cost Rate (%)	5.65%			5	.60%		5.60%			5.60%				5.01%
Short-term debt Cost Rate (%)	2.07%				.07%		2.07%			2.46%				2.46%
Common Equity Cost Rate (%)	9.85%			g	.85%		9.85%			9.85%				9.58%

Notes:

This Sheet is provided to show separately the Settlement Process adjustments, Updated Evidence, and Argument-in-Chief adjustments

All inputs are in dollars (\$) except where inputs are individually identified as percentages (%) 4.0% unless an Applicant has proposed or been approved for another amount. (1)

Net of addbacks and deductions to arrive at taxable income.

Average of Gross Fixed Assets at beginning and end of the Test Year

Average of Accumulated Depreciation at the beginning and end of the Test Year. Enter as a negative amount.

(1) (2) (3) (4) (5) (6) Not applicable as of July 1, 2010

(7) (8) (9) Reflects outcome of Settlement Process Reflects Updated Evidence

**Reflects Argument-in-Chief** 

Version: 2.11



### Revenue Requirement Work Form

Name of LDC:Kingston Hydro CorporationFile Number:EB-2010-0136Rate Year:2011

				Rate Base								
Line No.	Particulars	_	Initial Application		Adjustments	Ar	gument-in- Chief		Adjustments		Per Board Decision	
1	Gross Fixed Assets (average)	(3)	\$49,850,935		(\$770,725)		\$49,080,210		\$ -		\$49,080,210	
2	Accumulated Depreciation (average)	_(3)	(\$16,983,278)		\$40,752	(	\$16,942,526)		(\$433,959)	_	(\$17,376,485)	
3	Net Fixed Assets (average)	(3)	\$32,867,657		(\$729,973)	:	\$32,137,684		(\$433,959)		\$31,703,726	
4	Allowance for Working Capital	_(1)	\$10,274,885		\$18,346		\$10,293,230		\$292,839	_	\$10,586,069	
5	Total Rate Base	_	\$43,142,542		(\$711,627)		<u>\$42,430,915</u>		(\$141,120)		\$42,289,795	

	(1) Allowance for Working Capital - Derivation											
6	Controllable Expenses		\$6,980,907		\$76,596		\$7,057,503		(\$700,000)		\$6,357,503	
7	Cost of Power		\$61,518,323		\$45,710		\$61,564,033		\$2,652,260		\$64,216,293	
8	Working Capital Base		\$68,499,230	-	\$122,306		\$68,621,536		\$1,952,260		\$70,573,796	
9	Working Capital Rate %	(2)	15.00%		0.00%		15.00%		0.00%		15.00%	
10	Working Capital Allowance		\$10,274,885	=	\$18,346	-	\$10,293,230		\$292,839		\$10,586,069	

#### Notes

- (2) Generally 15%. Some distributors may have a unique rate due as a result of a lead-lag study.
- (3) Average of opening and closing balances for the year.



Version: 2.11



Revenue Requirement Work FormName of LDC:Kingston Hydro CorporationFile Number:EB-2010-0136 Rate Year: 2011

				Utility income		
Line No.	Particulars	Initial Application	Adjustments	Argument-in- Chief	Adjustments	Per Board Decision
1	Operating Revenues: Distribution Revenue (at Proposed Rates) Other Revenue	\$12,174,156 (1) \$625,325	(\$114,700) (\$1,308,921)	\$12,059,456 \$683,596	(\$967,419) \$ -	\$11,092,037 \$683,596
3	Total Operating Revenues	\$12,799,481	(\$1,423,621)	\$12,743,052	(\$967,419)	\$11,775,633
4	Operating Expenses: OM+A Expenses Depreciation/Amortization Property taxes Capital taxes Other expense	\$6,850,907 \$2,042,875 \$130,000 \$ - \$ - \$ -	\$102,734 ( <mark>\$30,660)</mark> \$ - \$ - \$ - \$ -	\$6,953,641 \$2,012,215 \$130,000 \$ - \$ - \$ -	(\$726,138) \$ - \$ - \$ - \$ - \$ - \$ -	\$6,227,503 \$2,012,215 \$130,000 \$ - \$ -
9	Subtotal (lines 4 to 8)	\$9,023,782	\$72,074	\$9,095,856	(\$726,138)	\$8,369,718
10	Deemed Interest Expense	\$1,401,176	(\$27,767)	\$1,373,409	(\$145,663)	\$1,227,746
11	Total Expenses (lines 9 to 10)	\$10,424,958	\$44,307	\$10,469,265	(\$871,801)	\$9,597,464
	Utility income before income taxes	\$2,374,523	(\$1,467,928)	\$2,273,787	(\$95,619)	\$2,178,168
13	Income taxes (grossed-up)	\$692,764	(\$18,791)	\$673,972	(\$116,349)	\$557,623
14	Utility net income	\$1,681,759	(\$1,449,136)	\$1,599,814	\$20,731	\$1,620,545

#### Notes

Other Revenues / Revenue Offsets Specific Service Charges	\$268,031	\$ -	\$268.031	\$ -	\$268,031
Late Payment Charges	\$37,901	\$ -	\$37,901	\$ -	\$37,901
Other Distribution Revenue	\$105,546	\$ -	\$105,546	\$ -	\$105,546
Other Income and Deductions	\$213,847	\$58,271	\$272,118	<u> </u>	\$272,118
Total Revenue Offsets	\$625,325	\$58,271	\$683,596	<u> </u>	\$683,59



Version: 2.11



### Revenue Requirement Work Form

Name of LDC: Kingston Hydro Corporation File Number: EB-2010-0136 Rate Year: 2011

Ontario

		Taxes/PILs					
Line No.	Particulars	Application		Argument-in- Chief		Per Board Decision	
	Determination of Taxable Income						
1	Utility net income before taxes	\$1,699,816		\$1,671,778		\$1,620,545	
2	Adjustments required to arrive at taxable utility income	\$188,000		\$214,137		(\$75,962)	
3	Taxable income	\$1,887,816		\$1,885,915		\$1,544,582	
	Calculation of Utility income Taxes						
4 5	Income taxes Capital taxes	\$497,058 \$ -	(1)	\$483,575 \$	(1)	\$400,095 \$ -	(1)
6	Total taxes	\$497,058		\$483,575		\$400,095	
7	Gross-up of Income Taxes	\$195,706		\$190,397		\$157,529	
8	Grossed-up Income Taxes	\$692,764		\$673,972		\$557,623	
9	PILs / tax Allowance (Grossed-up Income taxes + Capital taxes)	\$692,764		\$673,972		\$557,623	
10	Other tax Credits	\$ -		\$ -		\$ -	
	Tax Rates						
11 12 13	Federal tax (%) Provincial tax (%) Total tax rate (%)	16.50% 11.75% 28.25%		16.50% 11.75% 28.25%		16.50% 11.75% 28.25%	

<sup>&</sup>lt;u>Notes</u> (1)

Capital Taxes not applicable after July 1, 2010 (i.e. for 2011 and later test years)



Revenue Requirement Work Form Name of LDC: Kingston Hydro Corporation File Number: EB-2010-0136 Rate Year: 2011

Version: 2.11

1e 0.	Particulars	Capitalization Ratio		Cost Rate	Return
			Initial Application		
		(%)	(\$)	(%)	(\$)
	Debt				
1	Long-term Debt	56.00%	\$24,159,823	5.65%	\$1,365,454
2	Short-term Debt	4.00%	\$1,725,702	2.07%	\$35,722
3	Total Debt	60.00%	\$25,885,525	5.41%	\$1,401,176
	Equity				
4	Common Equity	40.00%	\$17,257,017	9.85%	\$1,699,816
5	Preferred Shares	0.00%	\$ -	0.00%	\$
6	Total Equity	40.00%	\$17,257,017	9.85%	\$1,699,816
7	Total	100.00%	\$43,142,542	7.19%	\$3,100,992

Capitalization/Cost of Capital

	Argument-in-Chief											
		(%)	(\$)	(%)	(\$)							
	Debt											
	Long-term Debt	56.00%	\$23,761,312	5.60%	\$1,331,657							
2	Short-term Debt	4.00%	\$1,697,237	2.46%	\$41,752							
3	Total Debt	60.00%	\$25,458,549	5.39%	\$1,373,409							
4	Equity Common Equity Preferred Shares	40.00%	\$16,972,366 <u>\$ -</u>	9.85%	\$1,671,778 <u>\$-</u>							
3	Total Equity	40.00%	\$16,972,366	9.85%	\$1,671,778							
7	Total	100.00%	\$42,430,915	7.18%	\$3,045,187							

			Per Board Decision		
		(%)	(\$)	(%)	(\$)
	Debt	(,,,,	(+)	(,,,,	(+)
8	Long-term Debt	56.00%	\$23,682,285	5.01%	\$1,186,133
9	Short-term Debt	4.00%	\$1,691,592	2.46%	\$41,613
10	Total Debt	60.00%	\$25,373,877	4.84%	\$1,227,746
	Equity	10.000/		0.50%	<b>\$1</b> ,000,545
11	Common Equity	40.00%	\$16,915,918	9.58%	\$1,620,545
12	Preferred Shares	0.00%	<u> </u>	0.00%	<u>\$-</u>
13	Total Equity	40.00%	\$16,915,918	9.58%	\$1,620,545
14	Total	100.00%	\$42,289,795	6.74%	\$2,848,291

<u>Notes</u> (1)

4.0% unless an Applicant has proposed or been approved for another amount.



Version: 2.11



### Revenue Requirement Work Form

### Name of LDC:Kingston Hydro CorporationFile Number:EB-2010-0136 2011

				Revenue Sufficie	ncy/Deficiency		
		Initial Appl	lication	Argument	in-Chief	Per Board I	Decision
Line No.	Particulars	At Current Approved Rates	At Proposed Rates	At Current Approved Rates	At Proposed Rates	At Current Approved Rates	At Proposed Rates
1 2 3	Revenue Deficiency from Below Distribution Revenue Other Operating Revenue Offsets - net	\$9,540,655 \$625,325	\$2,702,081 \$9,472,075 \$625,325	\$9,550,775 \$683,596	\$2,649,210 \$9,410,246 \$683,596	\$9,550,775 \$683,596	\$1,591,784 \$9,500,253 \$683,596
4 5 6	Total Revenue Operating Expenses Deemed Interest Expense Total Cost and Expenses	\$10,165,980 \$9,023,782 \$1,401,176 \$10,424,958	\$12,799,481 \$9,023,782 \$1,401,176 \$10,424,958	\$10,234,371 \$9,095,856 \$1,373,409 \$10,469,265	\$12,743,052 \$9,095,856 \$1,373,409 \$10,469,265	\$10,234,371 \$8,369,718 \$1,227,746 \$9,597,464	\$11,775,633 \$8,369,718 \$1,227,746 \$9,597,464
7	Utility Income Before Income Taxes	(\$258,978)	\$2,374,523	(\$234,894)	\$2,273,787	\$636,907	\$2,178,168
8	Tax Adjustments to Accounting Income per 2009 PILs Taxable Income	\$188,000	\$188,000 \$2,562,523	\$214,137	\$214,137	(\$75,962)	(\$75,962)
9 10	Income Tax Rate	(\$70,978) 28.25% (\$20.054)	28.25%	(\$20,757) 28.25%	\$2,487,923 28.25%	\$560,944 28.25%	\$2,102,206 28.25%
11 12 13	Income Tax on Taxable Income Income Tax Credits Utility Net Income	(\$20,051) <b>\$ -</b> (\$238,927)	\$723,913 \$ - \$1,681,759	(\$5,864) \$ - (\$229,030)	\$702,838 \$ - \$1,599,814	\$158,467 \$- \$478,440	\$593,873 \$ - \$1,620,545
14	Utility Rate Base	\$43,142,542	\$43,142,542	\$42,430,915	\$42,430,915	\$42,289,795	\$42,289,795
	Deemed Equity Portion of Rate Base	\$17,257,017	\$17,257,017	\$16,972,366	\$16,972,366	\$16,915,918	\$16,915,918
15 16	Income/Equity Rate Base (%) Target Return - Equity on Rate Base	-1.38% 9.85%	9.75% 9.85%	-1.35% 9.85%	9.43% 9.85%	2.83% 9.58%	9.58% 9.58%
17	Sufficiency/Deficiency in Return on Equity	-11.23%	-0.10%	-11.20%	-0.42%	-6.75%	0.00%
18 19	Indicated Rate of Return Requested Rate of Return on Rate Base	2.69% 7.19%	7.15% 7.19%	2.70% 7.18%	7.01% 7.18%	4.03% 6.74%	6.74% 6.74%
20	Sufficiency/Deficiency in Rate of Return	-4.49%	-0.04%	-4.48%	-0.17%	-2.70%	0.00%
21 22 23	Target Return on Equity Revenue Deficiency/(Sufficiency) Gross Revenue Deficiency/(Sufficiency)	\$1,699,816 \$1,938,743 \$2,702,081 <b>(1</b> )	\$1,699,816 (\$18,057)	\$1,671,778 \$1,900,808 \$2,649,210 <b>(1</b>	\$1,671,778 (\$71,964) )	\$1,620,545 \$1,142,105 \$1,591,784 <b>(1</b>	\$1,620,545 \$0 <b>)</b>

#### Notes:

(1) Revenue Sufficiency/Deficiency divided by (1 - Tax Rate)





### Revenue Requirement Work Form

Name of LDC:Kingston Hydro CorporationFile Number:EB-2010-0136Rate Year:2011

	Particulars	Revenue Requirement					
Line No.		Application		Argument-in-Chief		Per Board Decision	
1	OM&A Expenses	\$6,850,907		\$6,953,641		\$6,227,503	
2	Amortization/Depreciation	\$2,042,875		\$2,012,215		\$2,012,215	
3	Property Taxes	\$130,000		\$130,000		\$130,000	
4	Capital Taxes	\$ -		\$ -		\$ -	
5	Income Taxes (Grossed up)	\$692,764		\$673,972		\$557,623	
6	Other Expenses	\$ -		\$ -		\$ -	
7	Return						
	Deemed Interest Expense	\$1,401,176		\$1,373,409		\$1,227,746	
	Return on Deemed Equity	\$1,699,816		\$1,671,778		\$1,620,545	
8	Distribution Revenue Requirement						
•	before Revenues	\$12,817,538		\$12,815,015		\$11,775,632	
9	Distribution revenue	\$12,174,156		\$12,059,456		\$11,092,037	
10	Other revenue	\$625,325		\$683,596		\$683,596	
11	Total revenue	\$12,799,481		\$12,743,052		\$11,775,633	
12	Difference (Total Revenue Less Distribution Revenue Requirement						
	before Revenues)	(\$18,057)	(1)	(\$71,964)	(1)	\$0	

<u>Notes</u> (1)

I) Line 11 - Line 8


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#### **Revenue Requirement Work Form**

Name of LDC: Kingston Hydro Corporation File Number: EB-2010-0136 Rate Year: 2011

Consumption 800 kWh **Current Board-Approved** Proposed Impact Rate Volume Charge Rate Volume Charge Change Charge Unit (\$) (\$) (\$) (\$) \$ Change Monthly Service Charge 10.1200 10.12 12.0600 12.06 monthly 1.94 \$ \$ \$ \$ S. 1.00 Smart Meter Rate Adder monthly \$ 1.0000 \$ 1.0000 \$ \$ 1 1.00 \$ 1 Service Charge Rate Adder(s) monthly 1 \$ 1 \$ \$ Service Charge Rate Rider(s) monthly \$ \$ 0.2500 1 \$ 0.25 \$ 0.25 1 Distribution Volumetric Rate 800 0.0124 \$ 9.92 800 per kWh \$ 0.0148 \$ 11.84 1.92 \$ \$ Low Voltage Rate Adder \$ per kWh \$ 0.0002 800 0.16 \$ 0.0007 800 \$ 0.56 \$ 0.40 250.00% Volumetric Rate Adder(s) 800 \$ 800 \$ \$ Volumetric Rate Rider(s) 800 \$ 800 \$ \$ -Smart Meter Disposition Rider 800 \$ 800 -\$ \$ LRAM & SSM Rate Rider per kWh 800 \$ \$ 0.0012 800 \$ 0.96 \$ 0.96 Deferral/Variance Account 0.0031 -\$ 2.48 -\$ \$ per kWh \$ 800 -\$ 0.0031 800 2.48 **Disposition Rate Rider** Deferral/Variance Acct (2011) Rate per kWh \$ \$ 0.0011 800 \$ 0.88 \$ 0.88 GA Rate Rider (2010) Non-RPP per kWh \$ 0.0015 \$ . \$ 0.0015 \$ \$ GA Rate Rider (2011) Non-RPP per kWh \$ \$ 0.0013 \$ \$ Foregone Incremental Rev Rider 0.0016 800 1 28 1.28 per kWh \$ \$ \$ \$ Sub-Total A - Distribution \$ 18.72 26.35 \$ 7.63 \$ RTSR - Network per kWh 0.0055 830 0.0057 827.52 \$ \$ 4.57 \$ 0.15 \$ 4.72 \$ RTSR - Line and per kWh \$ 0.0046 \$ 3.82 \$ 0.0050 \$ \$ 0.32 830 827.52 4.14 Transformation Connection Sub-Total B - Delivery 27.10 \$ 35.20 \$ 8.10 \$ (including Sub-Total A) Wholesale Market Service per kWh 0.0052 4.32 0.0052 827.52 \$ 830 \$ \$ \$ 4.30 -\$ 0.01 Charge (WMSC) Rural and Remote Rate 0.0013 per kWh \$ \$ 1.08 \$ 0.0013 827.52 \$ 1.08 0.00 830 -\$ Protection (RRRP) Special Purpose Charge per kWh \$ 0.0003725 0.31 100.00% 830 \$ 827.52 \$ -\$ 0.31 Standard Supply Service Charge monthly 0 2500 \$ 0 25 \$ 0 2500 0 25 \$ \$ \$ 1 Debt Retirement Charge (DRC) per kWh \$ 0.0070 830 \$ 5.81 \$ 0.0070 827.52 \$ 5.79 -\$ 0.02 per kWh \$ 0.0710 830 \$ 58.93 \$ 0.0710 827.52 \$ 58.75 -\$ 0.18 \$

Residential

24 25 Energy 26 \$ \$ 27 \$ 28 Total Bill (before Taxes) 97.80 105.38 \$ \$ 29 HST 13% 12.71 13% \$ \$ 13.70 30 **Total Bill (including Sub-total** \$ 110.51 119.08 \$ B)

3.75%

Notes:

31 Loss Factor (%)

Note 1: Enter existing and proposed total loss factor (Secondary Metered Customer < 5,000 kW) as a percentage.

Energy Pricing per April 19, 2011 RPP Price Report, RPP Tiered Pricing with Summer Residential Threshold applied

Bill Impact above does not reflect the Ontario Clean Energy Benefit Credit

(4) Service Charge Rate Rider = Late Payment Penalty Rate Rider (2011)

This Bill Impact reflects an August 1, 2011 implementation and recovery of stub period.

Note 1

Version: 2.11

٥/

19.17%

0.00%

19.35%

0.00%

40.76%

3.33%

8.37%

29.89%

-0.30%

-0.30%

0.00%

-0.30%

-0.30%

7.75%

7.75%

7.75%

\$

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3.44%

7.58

0.99

8.57



## Revenue Requirement Work Form

Name of LDC: Kingston Hydro Corporation File Number: EB-2010-0136 Rate Year: 2011

> Consumption 2000 kWh

General Service < 50 kW

			Current Bo		oard-Appr	rd-Approved		Г	Pro	oposed			Impact		act
				Rate	Volume	С	harge		Rate	Volume	C	harge			%
		Charge Unit		(\$)			(\$)		(\$)			(\$)	\$ C	hange	Change
1	Monthly Service Charge	monthly	\$	23.3900	1	\$	23.39		\$ 24.8300	1	\$	24.83	\$	1.44	6.16%
2	Smart Meter Rate Adder	monthly	\$	1.0000	1	\$	1.00	3	\$ 1.0000	1	\$	1.00	\$	-	0.00%
3	Service Charge Rate Adder(s)				1	\$	-			1	\$	-	\$	-	
4	Service Charge Rate Rider(s)	monthly			1	\$	-	3	\$ 0.6200	1	\$	0.62	\$	0.62	
5	Distribution Volumetric Rate	per kWh	\$	0.0097	2000	\$	19.40	5	\$ 0.0103	2000	\$	20.60	\$	1.20	6.19%
6	Low Voltage Rate Adder	per kWh	\$	0.0002	2000	\$	0.40	3	\$ 0.0006	2000	\$	1.20	\$	0.80	200.00%
7	Volumetric Rate Adder(s)				2000	\$	-			2000	\$	-	\$	-	
8	Volumetric Rate Rider(s)				2000	\$	-			2000		-	\$	-	
9	Smart Meter Disposition Rider				2000	\$	-			2000	\$	-	\$	-	
10	LRAM & SSM Rider	per kWh			2000	\$	-	3	\$ 0.0004	2000	\$	0.80	\$	0.80	
11	Deferral/Variance Account	per kWh	-\$	0.0020	2000	-\$	4.00	-9	\$ 0.0020	2000	-\$	4.00	\$	-	0.00%
	Disposition Rate Rider														
12	Deferral/Variance Acct (2011) Rat					\$	-		\$ 0.0004	2000	\$	0.80	\$	0.80	
13	GA Rate Rider (2010) Non-RPP	per kWh	\$	0.0015		\$	-	3	\$ 0.0015		\$	-	\$	-	
14	GA Rate Rider (2011) Non-RPP	per kWh				\$	-		\$ 0.0013		\$	-	\$	-	
15	Foregone Incremental Rev Rider	per kWh				\$	-	3	\$ 0.0004	2000	\$	0.80	\$	0.80	
16	Sub-Total A - Distribution					\$	40.19				\$	46.65	\$	6.46	16.07%
17	RTSR - Network	per kWh	\$	0.0050	2075	\$	10.38	3	\$ 0.0052	2068.8	\$	10.76	\$	0.38	3.69%
18	RTSR - Line and	per kWh	\$	0.0042	2075	\$	8.72	3	\$ 0.0046	2068.8	\$	9.52	\$	0.80	9.20%
	Transformation Connection														
19	Sub-Total B - Delivery					\$	59.28	Г			\$	66.92	\$	7.64	12.90%
	(including Sub-Total A)														
20	Wholesale Market Service	per kWh	\$	0.0052	2075	\$	10.79	3	\$ 0.0052	2068.8	\$	10.76	-\$	0.03	-0.30%
	Charge (WMSC)														
21	Rural and Remote Rate	per kWh	\$	0.0013	2075	\$	2.70	3	\$ 0.0013	2068.8	\$	2.69	-\$	0.01	-0.30%
	Protection (RRRP)														
22	Special Purpose Charge	per kWh	\$	0.0003725	2075	\$	0.77			2068.8	\$	-	-\$	0.77	-100.00%
23	Standard Supply Service Charge	monthly	\$	0.2500	1	\$	0.25	3	\$ 0.2500	1	\$	0.25	\$	-	0.00%
24	Debt Retirement Charge (DRC)	per kWh	\$	0.0070	2075	\$	14.53		\$ 0.0070	2068.8		14.48	-\$	0.04	-0.30%
25	Energy	per kWh	\$	0.0750	2075	\$	155.68	3	\$ 0.0750	2068.8	\$	155.19	-\$	0.49	-0.31%
26						\$	-				\$	-	\$	-	
27						\$	-				\$	-	\$	-	
28	Total Bill (before Taxes)					\$	243.99	L			\$	250.29	\$	6.30	2.58%
29	HST			13%		\$	31.72		13%		\$	32.54	\$	0.82	2.58%
30	Total Bill (including Sub-total					\$	275.71	Г			\$	282.83	\$	7.12	2.58%
	В)														
								_							
31	Loss Factor	Note 1		3.75%				L	3.44%						

Notes:

Note 1: See Note 1 from Sheet 1A. Bill Impacts - Residential Energy Pricing reflects the April 19, 2011 Regulated Price Plan Report and non-residential RPP Tier Threshold applied Bill Impact above does not reflect the Ontario Clean Energy Benefit Credit

(4) Service Charge Rate Rider = Late Payment Penalty Rate Rider

This Bill Impact reflects an August 1, 2011 implementation and recovery of the stub period.

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Last April E2.1.5 Performance Based Regulation Log 29,

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May 2, 2011 Search								
<b>Q</b> "	Performance Based Regulation Summary and Submit	Capital Supply and Delivery Information	Customers, Utility Demand Characteristics and Revenue	Incentive Rate Mechanism				
FAQ	<b>Report Summary</b> Filing Due Year	Filing Form Name	RRR Filing No					
Submit RRR Filing	Reporting Period and Company Name	Licence Type	Status					
SOP Application	Report Version	Extension Granted	Extension Deadline					
SOP: View Work-In-Progress	Filing Due Date	Reporting From	Reporting To					
Application	Submitted On	Submitter Name	Expiry Date					
My Cases								
Case Documents	Instructions 1. Utilities that merged or were acquired entity as it existed prior to the merger o		must report data relevant to the					
Submit Smart Meter Filings	<ol> <li>Under the Customers, Demand and connections not number of accounts.</li> <li>When reporting Embedded Distributor</li> </ol>	Revenue tab, for Sentinel and Stree						
Submit an Application	your distribution system. 4. To delete a value that should have b 5. Clicking Save will not automatically s	submit this filing. To submit this filing	g, go to the Performance					
Submit Other Documents	Based Regulation Summary and Submit tab, scroll to the end of the page, select Yes in the Submit drop down then click the Save button. 6. The Print All button will print all tabs.							
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May 2, 2011			
Search			
	Based	bital Supply and Customers, Delivery Demand	Utility Incentive Characteristics Rate
<b>Q</b> <sup>1</sup>	Regulation Summary and Submit	Information and Revenue	e Mechanism
FAQ	Clicking Save or Apply will not automatically the page, select Yes in the Submit drop dow	r submit this filing. To SUBMIT this filing, scro rn then click the SAVE button.	II to the end of
Submit RRR Filing	Line Crew Wage Rates (\$/hr)		
SOP Application		ffect in the reporting year. If the line crew wag te before and after the change and the effect	
SOP: View Work-In-Progress	New Average Line Crew Wage Rate (\$/hr)	New Line Crew Wage Rate (\$/hr)	New Line Crew Wage Rate effective date
Application			
My Cases	Labor	Estimated average number of employees for the year whose earnings are charged to current	
Case Documents	Full time equivalent number of employees	operating expenses (Administrative, operating, and maintenance)	
Submit Smart Meter Filings	Salaries and Wages charged to current operating expenses, in dollars	Estimated average number of employees charged to new construction	Employee Salaries Wages charged to new Construction, in dollars
Submit an Application		SAVE SAV	E & EXIT PRINT ALL Cancel
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Last April

E2.1.5 Performance Based Regulation Log 29,

On: 2011

May 2, 2011	
Search	
	Performance Based         Labor         Capital         Supply and Delivery         Customers, Demand         Utility         Incentive           Regulation         Information         and Revenue         Mechanism
<b>Q</b> "	Summary and Submit
FAQ	Clicking Save or Apply will not automatically submit this filing. To SUBMIT this filing, scroll to the end of the page, select Yes in the Submit drop down then click the SAVE button.
Submit RRR Filing	Capital (in dollars)
SOP Application	Please enter all amounts as positive numbers.
SOP: View Work-In-Progress	Gross Capital Additions       a) Employee labor including benefits       b) Equipment and materials       c) Capital works/Other
Application	d) Overhead e) Carrying charges
My Cases	Total Gross Capital Additions (sum of a, b, c, d, & e)
Case Documents	Other Capital Related Information
Submit Smart Meter Filings	Retirements for year (net loss amount should be positive and net gain amount should be negative) Contributed capital for the year (Incremental)
Submit an Application	SAVE SAVE & EXIT PRINT ALL Cancel
Submit Other Documents	
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<b>Q</b> "	Performance Based Regulation Summary and SubmitLaborCapitalSupply and Delivery InformationCustomers, DemandUtility CharacteristicsIncentive Rate
FAQ	Clicking Save or Apply will not automatically submit this filing. To SUBMIT this filing, scroll to the end of the page, select Yes in the Submit drop down then click the SAVE button.
Submit RRR Filing	Supply and Delivery Information
SOP Application	For the purposes of this section, all kWhs other than in relation to distribution losses shall be reported based on a reading of the applicable meter, without being grossed up for loss factor.
SOP: View Work-In-Progress	A) Supply i. Total kWhs of electricity that has flowed into the
Application	distribution's distribution system from the IESO- contolled grid or the distribution system of a host distributor s distribution system form the IESO- distribution system form the IESO- distribution system form the IESO- distribution system form all embedded generation facilities iii. Number of wholesale meters pertaining to the utility located on primary side of the supply transformers
My Cases	
Case Documents	B) Delivery i. Total kWhs of electricity delivered to all customers is the distributive licensed exercise and to any iii. Total kWh delivered to avatament in the license
Submit Smart Meter Filings	in the distributor's licensed service area and to any ii. Total kWh delivered to customers in the Large embedded distributors Use class iii. Total kWhs delivered to embedded distributors
Submit an Application	C) Distribution Losses Distribution losses in kWhs, calculated as the
Submit Other Documents	difference between the supply as reported in A(i) and A(ii) above, less delivery as reported in B(i) above.
POWERED BY	D) Amount Charged (\$)
PIV DTAL	Amount charged by any host distributor for transmission or low voltage services in the year
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## Last April E2.1.5 Performance Based Regulation Log 29,

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	Performance Based Regulation Summary and Subm		Supply and Delivery Information	Customers, Demand and Revenue	Utility Characteristics Mechanism
FAQ		ply will not automatically submit s in the Submit drop down then o			end of
Submit RRR Filing	Customers, Dema	and and Revenues			
SOP Application	Rate Class	Customers/Connections	Billed kW	Billed kWh	Revenues Account (4080)
OP: View Work-In-Progress	Residential Customers General Service <				
Application	50 kW Customers General Service >= 50 kW Customers				
/ly Cases	Large User (>5,000 kW) Customers				
Case Documents	Street Lighting Connections Sentinel Lighting				
Submit Smart Meter Filings	Connections Sub Transmission Customers				
	Intermediate Service				
Submit an Application	Scattered Unmetered Load Connections				
Submit Other Documents	Embedded Distributor(s)				
	Total (Auto- Calculated)				
POWERED BY				SAVE SAVE & EX	IT PRINT ALL Cancel

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Last April E2.1.5 Performance Based Regulation Log 29, On: 2011

May 2, 2011			
Search			
<b>Q</b> "	Performance Based Regulation Summary and Submit	ital Supply and Customers, Delivery Demand Information and Revenue	Utility Characteristics Rate Mechanism
FAQ	Clicking Save or Apply will not automatically the page, select Yes in the Submit drop dow	submit this filing. To SUBMIT this filing, scrol n then click the SAVE button.	I to the end of
Submit RRR Filing	Utility Characteristics		
SOP Application	NOTE: Utilities that merged or were acquired the entity as it existed prior to the merger or Total Service Area (Sg.Km)	d subsequent to the reporting year must repo acquisition. Rural Service Area (Sg.Km)	rt data relevant to Urban Service Area (Sq.Km)
SOP: View Work-In-Progress	Service Area Population	Municipal Population	Number of Seasonal Occupancy Customers
Application	Utility Winter Max Monthly Peak Load (kW)	Utility Summer Max Monthly Peak Load (kW)	Utility Average Peak Load (kW)
My Cases	Utility Average Load Factor		
Case Documents	Circuit Kilometers of Line	Overhead Circuit Kilometers of Line	Underground Circuit Kilometers of Line
Submit Smart Meter Filings	Circuit Kilometers of Line by Type 3 Phase	2 Phase	Single Phase
Submit an Application	Total of all phases		
Submit Other Documents	Number of Transformers by Type Transmission	Sub-transmission	Distribution
POWERED BY PIV JTAL	Number of Distribution and Transmission Stations by kV Number of Distribution and Transmission Stations in Total	Number of Distribution and Transmission Stations Greater Than or Equal to 50kV	Number of Distribution and Transmission Stations Less Than 50 kV

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<b>Q</b> "	Performance Based Regulation Submit         Labor         Capital         Supply and Delivery         Customers, Delivery         Utility Demand         Incentive Characteristics         Rate Mechanism
FAQ	Clicking Save or Apply will not automatically submit this filing. To SUBMIT this filing, scroll to the end of the page, select Yes in the Submit drop down then click the SAVE button.
Submit RRR Filing	Incentive Rate Mechanism
SOP Application	A distributor whose rates during all or part of the reporting period were set using an incentive rate mechanism shall report the regulatory return earned since effective date of the most recent incentive rate change.
SOP: View Work-In-Progress	The reported return is to be calculated on the same basis as was used in establishing the distributor's base rates. Regulatory Return Earned Report Mailed to the Board
Application	Comments
My Cases	
Case Documents	
Submit Smart Meter Filings	
Submit an Application	SAVE SAVE & EXIT PRINT ALL Cancel
Submit Other Documents	
POWERED BY PIV TAL	

#### 1 DISTRIBUTION SYSTEM

2	Distribution Characteristics and Assets:	As of December 31, 2009
3	System Voltage Levels	44kV, 4.16/2.4kV, 13.8/8kV
4	Distribution Stations Total	17 (16 Stations: 44/4.16kV, 1 Station: 44-13.8/8kV)
5	Number of Transformers Total	2100 (37 sub-transmission, 2063 distribution)
6	Lines:	
7	Overhead	233 Km
8	Underground	124 Km
9	Embedded Generation:	
10	Cogen	15,000kW (not dispatchable by LDC or IESO)
11	Solar Photovoltaic	46.28kW
12	Wind	1.8kW
13	Load Customer Classes Served:	Based on 2009 Actuals
14	Residential	23,107
15	General Service < 50 kW	3,266
16	General Service 50 to 4,999 kW	348
17	Large Use	3
18	Unmetered Scattered Load	163
19	Street Lighting (connections)	5,114
20	Standby Power – approved on an interin	n basis 0
21	Neighbouring Utilities:	Hydro One Networks
22	Host or Embedded Utility Status:	Partially embedded distributor

#### 24 Kingston Hydro Corporation's Distribution System

A map showing Kingston Hydro's distribution service territory and schematics of Kingston Hydro's distribution
 system is provided as Attachment 1 of Exhibit 1 Tab 2 Schedule 2.

27 Kingston Hydro delivers electricity within an urban service area across 233 kilometers of overhead and 124

28 kilometers of underground lines to 23,107 residential customers and 3,617 commercial/industrial/institutional

customers, 163 unmetered scattered load customers, and one street light customer with 5,114 street light

30 connections. Kingston Hydro also has a few embedded generation customers.

Kingston Hydro has traditionally utilized 44kV and 5kV distribution voltages and more recently it has begun to
 utilize13.8kV. Kingston Hydro currently owns and operates 17 substations, of which 16 transform 44kV to 5kV and
 1 transforms 44kV to 13.8kV. The electrical feeders in 13 of the substations are protected by traditional

1 electromechanical relays while remote monitoring and control of these feeders is done using an older SCADA 2 Remote Terminal Unit (RTU) technology with serial communications. The electrical feeders in the remaining 4 3 substations utilize newer Intelligent Electronic Devices (IEDs) which provide integrated protection, remote 4 monitoring and control through Ethernet communications. Kingston Hydro views SCADA upgrades at substations 5 to be one of the first steps in creating a Smart Grid.

6 Underground distribution is found mainly in the downtown core and newer subdivisions. Overhead distribution is 7 generally prevalent in the City Right-of-Way outside of the downtown core and in older subdivisions the overhead 8 lines are located in backyards.

9 The underground electric cable network in the downtown core consists mainly of 5kV paper insulated lead cables 10 (PILC) and 120/208V rubber weatherproof (RW) cables in concrete encased duct. Underground electrical vault 11 structures are typically located near intersections and distribute 5kV and 120/208V to businesses 1 to 2 blocks 12 away. Typical vault equipment includes a 5kV oil switch, a 750kVA distribution transformer and 120/208V circuit 13 breakers. Refurbishment strategies have been established to rebuild the underground concrete vaults, replace 14 PILC cable with Cross-Link Polyethylene (XLPE) cable, replace 5kV oil switches with 15kV SF6 sealed switchgear and 15 replace standalone 120/208V circuit breakers with a new circuit breaker panel enclosure.

#### 16 Heritage and Limestone Service Area Characteristics

17 The City of Kingston was incorporated in 1846, making it one of the oldest cities in Canada. The City's heritage 18 department has begun to actively document sites of historical and archeological significance. It is not uncommon 19 for Kingston Hydro to retain the services of an archeologist to document historic finds during excavation work on 20 underground infrastructure projects. Archeological sites are typically assessed with consideration of three

21 occupation periods: British, French and First Nations (pre-European contact).

22 Kingston is often called the "Limestone City" because limestone bedrock is commonly encountered 30cm to 1m 23 below the surface and many of the older homes and landmarks around the City were constructed from limestone 24 quarried from the local area. Electrical underground structures were commonly placed on top of limestone 25 bedrock just inches below the asphalt roadway surface leaving the underground structures and asphalt more 26 susceptible to damage from natural freeze-thaw cycles. Rock removal must typically be factored into upgrades to 27 bring underground infrastructure up to current road construction standards and for the installation of poles, which 28

adds extra cost and time to projects.

#### 29 **Explanation of Partially Embedded Utility Status**

30 Kingston Hydro Corporation is a Registered Market Participant for the purposes of settlement with the

31 Independent Electricity System Operator. However, Kingston Hydro is also a distributor that is partially embedded 32 within Hydro One Network's 44kV distribution system.

33 Kingston Hydro is supplied directly by dedicated 44kV feeders from the Frontenac Transformer Station as well as 34 by dedicated embedded Hydro One 44kV distribution feeders from the Gardiner Transformer Station.

35 Barriefield Village and Canadian Forces Base Kingston, which are serviced by Kingston Hydro, are supplied by a

36 shared embedded Hydro One 44kV distribution feeder from the Frontenac Transformer Station.

## IN THE MATTER OF the Ontario Energy Board Act, 1998, S.O. 1998, C.15 (Schedule B);

**AND IN THE MATTER OF** an Application by Kingston Hydro Corporation for an Order or Orders approving just and reasonable rates and other service charges for the distribution of electricity effective May 1, 2011

## EB-2010-0136 DRAFT RATE ORDER Kingston Hydro Corporation Filed with the Ontario Energy Board June 30, 2011

## BACKGROUND:

Kingston Hydro Corporation ("Kingston Hydro") filed its 2011 distribution rate rebasing application (EB-2010-0136) on August 23, 2010. Kingston Hydro is the licensed electricity distributor for approximately one-half of the City of Kingston, serving approximately 27,000 customers.

On March 5, 2009, the Board informed Kingston Hydro that it would be one of the electricity distributors to have its rates rebased for the 2011 rate year instead of the 2010 rate year. This was confirmed in the Board's letter of April 20, 2010. Accordingly, on August 20, 2010, Kingston Hydro filed a cost of service application based on 2011 as the forward test year.

The Board issued a Notice of Application and Hearing (the "Notice") on September 14, 2010. The Board approved three interventions: the Energy Probe Research Foundation ("Energy Probe"); the School Energy Coalition ("SEC"); and the Vulnerable Energy Consumers Coalition ("VECC"). The Board also determined that these intervenors were eligible to apply for an award of costs under the Board's *Practice Direction on Cost Awards*.

As a result of the publication of the Notice, the Board received 8 letters of comment registering ratepayer concerns with the rate increases proposed, 1 letter of which was from a Kingston Hydro customer.

Procedural Order #1 in this proceeding was issued on October 12, 2010 and set the dates for two rounds of interrogatories, as well as a Settlement Conference. The Settlement Conference was held on December 15 and 16, 2010. During the course of the Settlement Conference, partial settlement was achieved, and Kingston Hydro filed the Partial Settlement Agreement with the Board on January 12, 2011.

Procedural Order #2 was issued on January 18, 2011, accepting the Partial Settlement Agreement and setting dates for the evidence update, interrogatories on the update and the dates for the oral hearing.

An evidence update was filed on February 4, 2010; Board staff and intervenors filed interrogatories on February 11, 2011 and responses from Kingston Hydro were received on February 18, 2011. A one day oral hearing took place on February 28, 2011. Kingston Hydro submitted its Argument-in-Chief on March 10, 2011. Board staff filed final submissions on March 29, 2011 and intervenors filed their final submissions on April 1, 2011. Kingston Hydro filed reply submissions on April 15, 2011. On April 26, 2011, the Board issued an Order declaring rates interim as of May 1, 2011. The Board issued its Decision on June 23, 2011 approving an effective date of May 1, 2011 and an implementation date of August 1, 2011.

## BOARD DIRECTION TO KINGSTON HYDRO:

In its Decision, the Board directed Kingston Hydro to file a draft Rate Order attaching a proposed Tariff of Rates and Charges reflecting the Board's findings in this Decision within **10 days** of the date of the issuance of this Decision. The draft Rate Order shall also include customer rate impacts and detailed supporting information showing the calculation of the final rates including the Revenue Requirement Work Form in Microsoft Excel format. The Board also directed Kingston Hydro to file detailed supporting material, including all relevant calculations showing the impact of this Decision on Kingston Hydro's revenue requirement, the allocation of the approved revenue requirement to the classes and the determination of the final rates.

The Board approved an effective date of May 1, 2011 and an implementation date of August 1, 2011. The Board orders Kingston Hydro to address any revenue deficiency arising from this Decision for the period of May 1, 2011 to the implementation date. Accordingly, Kingston Hydro is directed to calculate class specific rate riders that will recover from customers the stub period amount over a period of 10 months. Kingston Hydro should also provide the detailed calculations of the rate riders in its draft Rate Order.

## EFFECT OF THE DECISION ON EACH OF THE ISSUES

A summary of the effect of the Board's decisions on each of the issues is included below. Each relevant area of the Decision has been outlined with references to appropriate appendices where applicable. In addition, for each of the relevant issues, we have provided an updated Revenue Requirement Summary which updates the revenue requirement from the preceding issue. The starting point is the revenue requirement summary from the Applicant's Evidence Update reduced by the effect of the removal of the Late Payment Penalty Costs which were removed by the Applicant at the commencement of the Oral Hearing.

Please refer to Appendix A for the Revenue Requirement Summary prior to the Board's Decision.

Issue #2 Should the cost of power estimate for the determination of working capital allowance be based on the most current values (November, 2010 to October, 2011) as proposed by Kingston in the Application, or the most current projected values (May, 2011 to April, 2012)?

## BOARD FINDINGS:

The Board found that it is appropriate for Kingston Hydro to use the most current values available at the time the application is under consideration by the Board to establish the cost of power estimate for the determination of working capital allowance.

Specifically, the Board stated that this would have meant using the October 18, 2010 RPP forecast which is applied to the November, 2010 to October, 2011 period as originally proposed by Kingston in the application. The October 18, 2010 RPP forecast was the most current forecast available as the time the original application was before the Board. However, more current forecasts are now available, and the Board directed Kingston Hydro to update its calculations using the current estimate of the RPP commodity prices provided in the April 19, 2011 Regulated Price Plan Price Report.

Per the Board's decision, this amounts to an increase in the commodity rate from Kingston Hydro's previous calculation of \$.06694406/kWh to \$.07059022/kWh.

Based on total kWh of 727,411,417 this change increases the working capital allowance base by \$2,652,260. The

increase to rate base is 15% of the aforementioned amount and is calculated at \$397,829. This amount results in an increase in revenue requirement of \$28,122. This amount was determined by multiplying the applied for regulated rate of return of 7.07% to the increase in rate base.

Please refer to the updated Revenue Requirement Summary Appendix B for the effect of the Board Findings on this issue compared to the Applicant's Argument in Chief in Appendix A.

# Issue #1 Is it appropriate to use the half-year rule for depreciation for the years 2005-2010 as proposed by Kingston Hydro in its application?

## BOARD FINDINGS:

The Board found that using the half-year rule for calculating depreciation for the years 2005-2010 shall not be permitted when determining rate base for the 2011 test year.

Per the Board's decision, this amounts to a \$433,960 decrease to rate base. This amount results in a decrease in revenue requirement of \$30,675. This amount was determined by multiplying the applied for regulated rate of return of 7.07% to the decrease in rate base.

Please refer to the updated Revenue Requirement Summary Appendix C for the effect of the Board Findings on this issue compared to Appendix B above.

## Issue #3: Are the 2011 capital expenditures proposed by Kingston in the Application appropriate?

## BOARD FINDINGS:

The Board approved the revised capital budget proposed by Kingston Hydro which includes the Substation #3 project in the test year.

Therefore there is no change to the rate base and resulting revenue requirement as a result of the Board's decision on this issue.

# Issue #4: Is the proposed interest income earned on funds held in the City of Kingston's bank account appropriate as proposed by Kingston Hydro in the application?

## BOARD FINDINGS:

The Board found that the 3.0% prime rate currently in effect and reflected in Kingston Hydro evidence is acceptable for rate setting purposes.

The Board agreed with the submissions of Kingston Hydro and found that the level of funds that Kingston Hydro holds in its bank account is an operational decision that should be made by the utility's management. The Board will not require Kingston Hydro to use funds it has collected in its bank account to pay down a debt the proportion of which has been deemed to be appropriate.

Therefore there is no change to the rate base, return on rate base, distribution expenses, taxes, revenue offsets and resulting distribution revenue requirement as a result of the Board's decisions on this issue.

# Issue #5: Are the 2011 Operating, Maintenance and Administrative (OM&A) expenses as proposed by Kingston Hydro in the application appropriate?

## BOARD FINDINGS:

The Board reduced the OM&A by a total of \$700,000 to a resulting level of OM&A of \$6,227,504.

Per the Board's decision, this amounts to a \$700,000 reduction in the working capital allowance base, which reduces rate base by \$105,000. This reduction in rate base results in a reduced revenue requirement of \$7,422 based on the applied for regulated rate of return of 7.07%

In addition, this also amounts to a reduction in OMA recovery of \$700,000 reducing the revenue requirement by \$700,000.

Please refer to the updated Revenue Requirement Summary Appendix D for the effect of the Board Findings on this issue compared to Appendix C above.

# Issue #7: Is the interest rate of 7.25% for the long-term debt instrument held by the City of Kingston as proposed by Kingston in the Application appropriate for the purpose of setting rates?

### **BOARD FINDINGS:**

The Board ordered Kingston Hydro to use a deemed debt rate of 5.87%.

The Board's decision effectively reduces the overall long term debt rate from 5.60% to 5.01% and the overall return on rate base from 7.07% to 6.74%.

The effect of this change is to effectively reduce the total return on rate base by 0.33% or \$141,095. This reduces the revenue requirement by \$141,095.

Please refer to the updated Revenue Requirement Summary Appendix E for the effect of the Board Findings on this issue compared to Appendix D above.

# Issue #6: Is the PILs Schedule 1 adjustment for future benefit liabilities as proposed by Kingston Hydro in the Application appropriate?

### BOARD FINDINGS:

The Board found that the additions and deductions to taxable income of future post-employment benefit liabilities shall not be included in Kingston Hydro's calculation of the PILs provision for its 2011 revenue requirement.

In addition, the Board directed Kingston Hydro to recalculate the level of income tax PILs expense on the basis of the Board's findings in this Decision, and to include sufficient details of the calculations to ensure the accuracy of the PILs calculation.

Kingston Hydro has filed an updated PILs model that reflects the Board's final Decision on all matters. The effect of the Board's decision in Issue #6, combined with the effect of the Board's decision on the other issues, results in a \$116,349 reduction in PILs recovery from \$673,972 to \$557,623.

Please refer to the updated Revenue Requirement Summary Appendix F for the effect of the Board Findings on this issue compared to Appendix E above. Please find attached an updated PILs Model as Appendix K.

## **REVENUE DEFICIENCY**

As a result of the Board's Decision, Kingston Hydro's final Revenue Deficiency for 2011 is \$1,541,262 as outlined in Appendix F.

## LATE PAYMENT PENALTY LITIGATION COST

In its application, Kingston Hydro requested the recovery of a one time expense of \$104,031.09 related to the late payment penalty ("LPP") costs and damages resulting from a court settlement that addressed litigation against many of the former municipal electricity utilities in Ontario.

The Board approved Kingston Hydro's monthly class specific rate riders as filed for a recovery of \$104,031.09.

## COST ALLOCATION

For the purpose of obtaining complete settlement of all issues with the exception of the seven outstanding issues, the Parties agree that the 2011 Cost Allocation Model will be revised such that the 2011 distribution of base revenue will reflect the 2011 Customer and Load Forecast and the 2010 Board Approved distribution rates, EB-2009-0201. The Parties further agree that the revenue to cost ratio for the classes above their Board Approved Ranges after the revision, namely the GS<50 and USL classes, will be moved down to the top of their respective ranges. Under the revised approach to the Cost Allocation Model only the LU class and the Residential Class are below a revenue to cost ratio of 1.0; accordingly the Parties agree that the revenue shifted from the GS<50 and USL classes will be recovered first from the LU class (as the class most under a revenue to cost ratio of 1.0 and the only class below its' Board Approved Range) until the LU class revenue to cost ratio is equal to the Residential Class' revenue to cost ratio, and then from both the LU and Residential Classes, maintaining similar, and if possible, identical revenue to cost ratios for both.

Kingston Hydro's Cost Allocation Model has been updated to reflect the Board's decisions. Appendix G provides the Cost Allocation Model sheets O1 and O2 summary updated to reflect the Decision. The Draft Rate Order revenue to cost ratios reflects the Settlement methodology agreed upon for adjusting these ratios.

The Revenue to Cost ratios per the Settlement Agreement outcome and per the Draft Rate Order are summarized in Table below.

	Revenue to Cost Ratios							
Customer Class Name					Change			
	Per CA Model at	At Settlement	Per CA Model Updated		Settlement Outcome to			
	Settlement	Agreement Outcome	to Board Decision	Per Draft Rate Order	Draft Rate Order			
Residential	91.1%	93.4%	91.1%	93.3%	-0.1%			
General Service Less Than 50 kW	131.0%	119.9%	129.9%	120.0%	0.1%			
General Service 50 to 4,999 kW	107.3%	106.9%	108.1%	107.0%	0.1%			
Large Use	84.1%	93.0%	85.0%	93.0%	0.0%			
Unmetered Scattered Load	122.7%	119.6%	121.2%	120.0%	0.4%			
Street Lighting	104.4%	103.5%	104.8%	104.0%	0.5%			
TOTAL	100%	100%	100%	100%	0%			

#### Table: Revenue to Cost Ratios Summary

The following table provides the allocation of the approved revenue requirement to the classes:

## F3 Revenue Requirement Allocation

	Base Re	venue Require	ment %	Base Revenue Requirement \$ <sup>3</sup>			
Customer Class Name	Cost	Existing	Rate		Existing	Rate	
	Allocation <sup>1</sup>	Rates <sup>2</sup>	Application	Cost Allocation	Rates	Application	
Residential	60.76%	55.00%	56.42%	6,739,451	6,100,839	6,257,879	
General Service Less Than 50 kW	14.29%	18.99%	17.36%	1,585,235	2,106,230	1,925,310	
General Service 50 to 4,999 kW	19.57%	21.13%	21.01%	2,170,628	2,343,716	2,330,378	
Large Use	4.03%	3.38%	3.73%	446,572	374,607	413,990	
Unmetered Scattered Load	0.38%	0.48%	0.47%	42,672	53,348	52,530	
Street Lighting	0.97%	1.02%	1.01%	107,478	113,297	111,950	
TOTAL	100.00%	100.00%	100.00%	11,092,037	11,092,037	11,092,037	
	•		OK			OK	

<sup>1</sup> from sheet F2 <sup>2</sup> from sheet C3 2

<sup>3</sup> Base Revenue Requirement (from sheet F1) multiplied by Base Revenue Requirement %

	Revenue Offsets 4		Base F	Revenue Requirer	nent \$	Service Revenue Requirement \$ 5		
Customer Class Name	0/	•	Cost	Existing	Rate	Cost	Existing	Rate
	%	Þ	Allocation	Rates	Application	Allocation	Rates	Application
Residential	62.48%	427,126	6,739,451	6,100,839	6,257,879	7,166,577	6,527,965	6,685,004
General Service Less Than 50 kW	16.84%	115,136	1,585,235	2,106,230	1,925,310	1,700,371	2,221,366	2,040,446
General Service 50 to 4,999 kW	16.31%	111,515	2,170,628	2,343,716	2,330,378	2,282,143	2,455,232	2,441,893
Large Use	2.76%	18,882	446,572	374,607	413,990	465,454	393,489	432,872
Unmetered Scattered Load	0.97%	6,618	42,672	53,348	52,530	49,290	59,966	59,148
Street Lighting	0.63%	4,319	107,478	113,297	111,950	111,797	117,616	116,269
TOTAL	100.00%	683,596	11,092,037	11,092,037	11,092,037	11,775,632	11,775,632	11,775,632

<sup>4</sup> %s from sheet F2; total \$ from sheet F1

<sup>5</sup> Revenue Offsets plus Base Revenue Requirement

	Service	Revenue Requi	irement	Cost Allocation		Target R	ange	
Customer Class Name	Rate	Cost	Revenue to	Revenue to	Variance	Floor	Calling	
	Application	Allocation <sup>8</sup>	Cost Ratio 6	Cost Ratio 7		FIOOI	Ceiling	
Residential	6,685,004	7,166,577	0.93	0.91	0.02	0.85	1.15	
General Service Less Than 50 kW	2,040,446	1,700,371	1.20	1.30	(0.10)	0.80	1.20	
General Service 50 to 4,999 kW	2,441,893	2,282,143	1.07	1.08	(0.01)	0.80	1.80	
Large Use	432,872	465,454	0.93	0.85	0.08	0.85	1.15	
Unmetered Scattered Load	59,148	49,290	1.20	1.21	(0.01)	0.80	1.20	
Street Lighting	116,269	111,797	1.04	1.05	(0.01)	0.70	1.20	
TOTAL	11,775,632	11,775,632	1.00	1.00				

<sup>6</sup> Rate Application value divided by Cost Allocation value

<sup>7</sup> from sheet F2

<sup>8</sup> from the Cost Allocation model, this is the service revenue requirement value needed to fully cover off cost. Ie. to achieve a 1.0 revenue to cost ratio.

### RATE DESIGN:

#### Fixed/Variable Proportions

For the purposes of obtaining complete settlement of all issues with the exception of the seven issues outlined above, the Parties agree that the Applicant shall increase the fixed charge for each class by the same percentage as the percentage increase to the variable charge for that class.

The Draft Order fixed/variable proportions for each rate class reflect the methodology agreed upon at Settlement. The following table provides the fixed/variable proportions per the Draft Rate Order.

#### Table: Draft Rate Order Fixed/Variable Proportions

#### F4 Fixed/Variable Rate Design

	Existing Rates (a)			Cost Allocati	on - Minimum Fi	xed Rate (b)	Cost Allocation - Maximun Fixed Rate (b)		
Customer Class Name	Rate	Fixed %	Variable %	Rate	Fixed %	Variable %	Rate	Fixed %	Variable %
Residential	\$10.12	54.06%	45.94%	\$3.61	16.17%	83.83%	\$12.86	57.65%	42.35%
General Service Less Than 50 kW	\$23.39	50.21%	49.79%	\$5.35	10.82%	89.18%	\$23.39	47.29%	52.71%
General Service 50 to 4,999 kW	\$234.10	48.30%	51.70%	\$22.23	3.97%	96.03%	\$234.10	41.83%	58.17%
Large Use	\$3,864.27	43.13%	56.87%	\$46.21	0.40%	99.60%	\$3,864.27	33.60%	66.40%
Unmetered Scattered Load	\$9.70	41.56%	58.44%	\$4.38	16.42%	83.58%	\$13.33	49.94%	50.06%
Street Lighting	\$0.86	54.53%	45.47%	\$0.44	24.51%	75.49%	\$7.99	441.68%	-341.68%

(b) Rates per sheet F2; %s based on # customers/connections (sheet C2) and Base Revenue Requirement allocated to class (sheet F3)

	Existing	Existing Fixed/Variable Split (c)			Rate Application		Base Revenue Requirement \$			
Customer Class Name	Rate	Fixed %	Variable %	Fixed Rate	Fixed %	Variable %	Total (d)	Fixed (e)	Variable (f)	
Residential	\$12.06	54.06%	45.94%	\$12.06	54.06%	45.94%	6,257,879	3,383,202	2,874,676	
General Service Less Than 50 kW	\$24.83	50.21%	49.79%	\$24.83	50.21%	49.79%	1,925,310	966,629	958,681	
General Service 50 to 4,999 kW	\$270.33	48.30%	51.70%	\$270.33	48.30%	51.70%	2,330,378	1,125,657	1,204,721	
Large Use	\$4,959.68	43.13%	56.87%	\$4,959.68	43.13%	56.87%	413,990	178,549	235,441	
Unmetered Scattered Load	\$11.09	41.56%	58.44%	\$11.09	41.56%	58.44%	52,530	21,831	30,700	
Street Lighting	\$0.99	54.53%	45.47%	\$0.99	54.53%	45.47%	111,950	61,050	50,900	

(c) %s per Existing Rates, Rate based on Fixed % of Total Base Revenue allocated to class (4) and # (e) Based on Rate Application Fixed Rate and # customers/connections (sheet C2) (d) per sheet F3 (f) Total amount (d) less Fixed amount (e)

	Transf. Allo	wance (\$/kW):	(\$0.60)	Gross \$	Resulting	Variable	Existing	Base Reve	nue \$
Customer Class Name	kW	Rate	Total \$ (g)	Variable (h)	Rate (i)	per	Var. Rate (j)	Fixed (k)	Gross (I)
Residential				2,874,676	\$0.0148	kWh	\$0.0124	3,383,202	6,257,879
General Service Less Than 50 kW				958,681	\$0.0103	kWh	\$0.0097	966,629	1,925,310
General Service 50 to 4,999 kW	237,084	\$0.60	142,250	1,346,971	\$1.9191	kW	\$1.6891	1,125,657	2,472,628
Large Use	109,658	\$0.60	65,795	301,236	\$1.0118	kW	\$0.8371	178,549	479,785
Unmetered Scattered Load				30,700	\$0.0135	kWh	\$0.0118	21,831	52,530

50,900

Street Lighting

(g) kW volume multiplied by Rate

(h) Variable Base Revenue Requirement (f), plus total Transformer Allowances (g) (i) Gross Variable amount \$ (h), divided by test year volume (sheet C2)

(k) per (e) above (I) Gross Variable amount (h), plus Fixed Base Revenue (k)

61,050

111

\$4.4901

## **RETAIL TRANSMISSION SERVICE RATES (RTSRs) and LOW VOLTAGE RATES**

As part of the settlement agreement, the Parties agreed that the RTSRs and Low Voltage Rates proposed by Kingston Hydro for 2011 were acceptable.

The following table provides the 2011 RTSRs and Low Voltage Rates by rate class:

Customer			Transmission -	
Customer		<b>Transmission - Network</b>	Connection	Low Voltage Charges
Class Name	Metric	Rate	Rate	Rate
Residential	kWh	\$0.0057	\$0.0050	\$0.0007
General Service Less Than 50 kW	kWh	\$0.0052	\$0.0046	\$0.0006
General Service 50 to 4,999 kW	kW	\$2.2797	\$1.9813	\$0.2520
Large Use	kW	\$2.7468	\$2.3874	\$0.3036
Unmetered Scattered Load	kWh	\$0.0057	\$0.0050	\$0.0007
Street Lighting	kW	\$1.6467	\$1.4311	\$0.1820

#### 2011 Retail Transmission Rates and Low Voltage Charges

### LOSS FACTORS

For the purposes of obtaining complete settlement of all issues with the exception of the seven issues identified above, the Parties accept the loss factors proposed by Kingston Hydro.

#### **DEFERRAL AND VARIANCE ACCOUNTS:**

For the purposes of obtaining complete settlement of all issues with the exception of the seven issues outlined above, the Parties agree to the disposition of the balances selected for disposition over a two year recovery period. The Parties also agreed that Kingston Hydro should be granted Account 1595 Sub-Account Disposition of December 31, 2009 Balances.

### LOST REVENUE ADJUSTMENT MECHANISM (LRAM):

For the purposes of obtaining complete settlement of all issues with the exception of the seven issues outlined above, the Parties agree to Kingston Hydro's LRAM claim.

### **RE-CALCULATION OF RATE RIDERS**

Kingston Hydro has recalculated its rate riders, to collect balances from its customers and refund balances to its customers, based on recovery beginning August 1, 2011, in order to account for the stub period.

Kingston Hydro proposes to reduce the overall recovery period for new rate riders that per the application were to be in effect for 12 months down to 10 months as directed in the Decision. Kingston Hydro proposes a sunset date of May 31, 2012 for these rate riders whose overall recovery period is being reduced from 12 months to 10 months.

Kingston Hydro proposes to reduce the overall recovery period for new rate riders that per the application were to be in effect for 24 months down to 21 months. It is proposed that the sunset date for these rate riders remain per the application sunset date of April 30, 2013.

The rate riders proposed for recalculation, the recovery periods, the sunset dates, and the methodologies are summarized in the following table:

Summary of Rate Rider Re-Calculations										
		Recovery/Refund	Recovery/Refund	Sunset Date						
		Period per	Period per	per	Billing	Rate Rider				
Rate Rider	Status	Application	Draft Rate Order	Draft Rate Order	Determinant	Re-Calculation				
Late Payment Penalty Rate Rider (2011)	New	12 months	10 months	May 31, 2012	Monthly	Rate Class Specific M	onthly Fixed Rate Ri	der (based on 12 mor	hth recovery) x 12 mor	nths / 10 month
Deferral/Variance Account Rate Rider (2011)	New	24 months	21 months	April 30, 2013	Variable	\$ Amount Recoverable	(Refundable) for eac	h rate class / Rate C	lass Volume over 21 r	nonths
Global Adjustment Rate Rider (2011) (non-RPP customers only)	New	24 months	21 months	April 30, 2013	Variable	\$ Amount Recoverable	for each rate class	Rate Class Volume	over 21 months	
LRAM Rate Rider (2011)	New	12 months	10 months	May 31, 2012	Variable	\$ Amount Recoverable	for each rate class	Rate class Volume	over 10 months	

Recalculation details for each of the rate riders above are provided in the following tables:

Lata Davida et David Data Dita (2014)							
Late Payment Penalty Rate Rider (2011)							
Recalculation based on Commencement: August 1, 2011							
Sunset Date: May 31, 2012							
Draft Rate Order Recovery Period in Months:	10						
	Col [A]	Col [B]	Col [C]		Col [D]		Col [E]
		Per I PP Rate F	Rider Submission			Dra	t Rate Orde
Customer Class Name			2009 RRR			-	ed Monthly
	Total \$ Amount		Customers/	Fiz	xed Monthly	Rá	ate Rider =
	Recoverable	Class Metric	Connections	1	Rate Rider	Col[#	A] / Col[C] / 10
Residential	\$57,656.08	Customer	23,223	\$	0.21	\$	0.2
General Service Less Than 50 kW	\$20,026.21	Customer	3,255	\$	0.51	\$	0.6
General Service 50 to 4,999 kW	\$21,403.75	Customer	351	\$	5.08	\$	6.1
Large Use	\$3,454.13	Customer	3	\$	95.95	\$	115.14
Unmetered Scattered Load	\$513.61	Customer	159	\$	0.27	\$	0.3
Street Lighting	\$977.30	Connections	5,116	\$	0.02	\$	0.0
TOTAL LPP recovery amount	\$104,031.09						

Deferral/Variance Account Rate Rider (2011)						
Application Recovery Period 24 Months						
Recalculation based on Commencement: August 1, 2011						
Sunset Date: April 30, 2013						
Draft Rate Order Recovery Period in Months:	21					
	Col [A]	Col [B]	Col [C]	Col [D]	Col [E]	Col [F]
	Total \$ Amount Recoverable	Class Volume per	2011 Test Year Volume	Volume distributed over 21 Month Recovery Timeframe	Application Variable Rate Rider	Draft Rate Order Variable Rate Rider
Customer Class Name	(per Application)		(per Application)	=Col[C]/12 x 21		= Col[A] / Col[D]
Residential	\$372,644.77	kWh	194,606,362	340,561,134	\$ 0.0010	\$ 0.0011
General Service Less Than 50 kW	\$59,943.97	kWh	93,096,784	162,919,372	\$ 0.0003	\$ 0.0004
General Service 50 to 4,999 kW	(\$2,617.25)	kW	701,859	1,228,253	\$ (0.0019)	\$ (0.0021
Large Use	(\$19,252.94)	kW	297,737	521,040	\$ (0.0323)	\$ (0.0370
Unmetered Scattered Load	\$2,622.36	kWh	2,275,040	3,981,320	\$ 0.0006	\$ 0.0007
Street Lighting	\$1,068.91	kW	11,336	19,838	\$ 0.0471	\$ 0.0539
TOTAL	\$414,409.82		r — — — -	$\square \square \square \square$	r <u>— — —</u> —	

Global Adjustment Rate Rider (2011) Non-RPP customers						
Application Recovery Period 24 Months						
Recalculation based on Commencement: August 1, 2017						
Sunset Date: April 30, 2013						
Draft Rate Order Recovery Period in Months	21					
	Col [A]	Col [B]	Col [C]	Col [D]	Col [E]	Col [F]
				Non-RPP		
				Volume		
			Non-RPP	distributed over		Draft Rate Order
	Total \$ Amount	Class Volume	2011 Test Year	Recovery	Application Variable	Variable
	Recoverable	per	Volume	Timeframe	Rate Rider	Rate Rider
Customer Class Name	(per Application)		(per Application)	= Col [C] /12 x 21		= Col[A] / Col[D]
Residential	\$46,905.52	kWh	20,046,075	35,080,631	\$ 0.0012	\$ 0.0013
General Service Less Than 50 kW	\$45,091.19	kWh	19,270,681	33,723,692	\$ 0.0012	\$ 0.0013
General Service 50 to 4,999 kW	\$416,078.61	kW	480,737	841,291	\$ 0.4328	\$ 0.4946
Large Use	\$346,309.79	kW	289,874	507,279	\$ 0.5973	\$ 0.6827
Unmetered Scattered Load	\$2,556.45	kWh	1,092,553	1,911,968	\$ 0.0012	\$ 0.0013
Street Lighting	\$9,341.26	kW	11,246	19,680	\$ 0.4153	\$ 0.4747
TOTAL	\$866,282.83		r — — — -		r — — — –	

#### LRAM Rate Rider (2011)

LRAM Rate Rider (2011)						
Application Recovery Period 12 Months						
Recalculation based on Commencement: August 1, 2011						
Sunset Date: May 31, 2012						
Draft Rate Order Recovery Period in Months:	10					
	Col [A]	Col [B]	Col [C]	Col [D]	Col [E]	Col [F]
				Volume distributed over		Draft Rate Order
	Total \$ Amount	Class Volume	2011 Test Year	Recovery	Application Variable	Variable
	Recoverable	per	Volume	Timeframe	Rate Rider	Rate Rider
Customer Class Name	(per Application)		(per Application)	= Col [C] /12 x 10		= Col[A] / Col[D]
Residential	\$195,469.08	kWh	194,606,362	162,171,968	\$ 0.0010	\$ 0.0012
General Service Less Than 50 kW	\$33,123.37	kWh	93,096,784	77,580,653	\$ 0.0004	\$ 0.0004
General Service 50 to 4,999 kW	\$21,519.24	kW	701,859	584,883	\$ 0.0307	\$ 0.0368
Large Use	\$67.50	kW	297,737	248,114	\$ 0.0002	\$ 0.0003
Unmetered Scattered Load		kWh	2,275,040	1,895,867	\$ -	\$ -
Street Lighting		kW	11,336	9,447	\$ -	\$ -
TOTAL	\$250,179.19					

## FOREGONE INCREMENTAL REVENUE RATE RIDER

Per the Decision, Kingston Hydro has calculated class specific rate riders to recover from customers the foregone incremental revenue for the stub period, May 1, 2011 to July 31, 2011 and to recover it over a period of 10 months.

Since the implementation date is August 1, 2011, Kingston Hydro proposes a sunset date of May 31, 2012 for this foregone incremental revenue rate rider. Further Kingston Hydro proposes to recover the stub period amount through a variable class specific rate rider.

The calculation methodology and resultant class rate riders are provided in the following table:

Foregone Incremental Revenue Rate Rider (20	011)								
Commencement: August 1, 2011									
Sunset Date: May 31, 2012									
Draft Rate Order Recovery Period in Months:	10								
	Col [A]	Col [B]	Col [C]	Col [D]	Col [E]	Col [F]	Col [G]	Col [H]	Col [I]
	2011 Revenue	2011 Revenue			3 Months			Distribution	
	at	at	Revenue at	Revenue at	Foregone	<b>Customer Class</b>	2011	Volumes for	Foregone
	<b>Existing Rates</b>	New Rates	Existing Rates	New Rates	Incremental	Volume	Distribution	Recovery	Revenue Rate
	12 months	12 months	3 months	3 months	Revenue	Determinant	Volumes	Period	Rider
Customer Class Name	By Rate Class	By Rate Class	By Rate Class = Col [A] / 12 x 3	By Rate Class = Col [B] / 12 x 3	Difference Col [D] - Col [C]	per	Class Volumes	By Rate Class = Col [G] x 10/12	Variable Class Rate = Col [E] / Volume Col [H]
Residential	5,253,115	6,264,596	1,313,279	1,566,149	252,870	kWh	194,606,362	162,171,968	\$ 0.0016
General Service Less Than 50 kW	1,813,565	1,925,479	453,391	481,370	27,979	kWh	93,096,784	77,580,653	\$ 0.0004
General Service 50 to 4,999 kW	2,018,052	2,330,341	504,513	582,585	78,072	kW	701,859	584,883	\$ 0.1335
Large Use	322,555	414,004	80,639	103,501	22,862	kW	297,737	248,114	\$ 0.0921
Unmetered Scattered Load	45,935	52,538	11,484	13,135	1,651	kWh	2,275,040	1,895,867	\$ 0.0009
Street Lighting	97,554	112,141	24,388	28,035	3,647	kW	11,336	9,447	\$ 0.3860
TOTALS	9,550,775	11,099,100	2,387,694	2,774,775	387,081		290,989,118	242,490,932	

### FINAL RATES

Kingston Hydro's 2011 Draft Tariff of Rates and Charges based on an August 1, 2011 implementation date is provided in Appendix H.

#### BILL IMPACTS

Detailed bill impacts for each of the rate classes based on typical class usage applied to the rates provided in the Draft Tariff of Rates and Charges based on an August 1, 2011 implementation are provided in Appendix I.

The following table provides a summary of the delivery charge impacts and total bill impacts for each of the customer classes:

#### **Delivery Charge Impacts and Total Bill Impacts**

			Delivery Charge Impact	Total Bill Impact
	Typical kWh	Typical kW	% Per Draft Rate Order	% Per Draft Rate Order
Customer Class Name	Usage	Usage	August 1, 2011 Implementation	August 1, 2011 Implementation
Residential	800	0	29.89%	7.76%
General Service Less Than 50 kW	2000	0	12.90%	2.60%
General Service 50 to 4,999 kW	15000	60	16.31%	4.03%
Large Use	4350000	8300	23.72%	2.59%
Unmetered Scattered Load	250	0	22.43%	8.72%
Street Lighting	65	0.18	23.56%	5.47%

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 1 of 42



May 1, 2012

Excel 2007

Excel that you are currently using:

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We are applying for rates effective:

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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

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 2 of 42

Montario Energy Board 3<sup>RD</sup> Generation Incentive **Regulation Model** 



Kingston Hydro Corporation - EB-2011-0178

Table of Contents

- 1. <u>Info</u>

- Inito
   Inito

   Inito
   Inito

   Inito

   Inito

   Inito

   Inito

   Inito

   Inito

   Inito

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   Inito

   Inito
- 6. Current Volumetric Rate Riders
- 7. Current RTSR-Network Rates
- S. Current RTSR-Connection Rates
   2012 Continuity Schedule for Deferral and Variance Accounts
- 10. Deferral/Variance Accounts Billing Determinants
- 11. Deferral/Variance Accounts Cost Allocation
- 12. Deferral/Variance Accounts Calculation of Rate Riders
   13. Proposed Monthly Fixed Charges
   14. Proposed Volumetric Rate Riders
   15. Proposed RTSR-Network Rates
   16. Proposed RTSR-Connection Rates
   17. Additional Content and Content

- Adjustments for Revenue/Cost Ratio and GDP-IPI X
   Loss Factors Current and Proposed (if applicable)

- <u>Other Charges</u>
   <u>2012 Final Tariff of Rates and Charges</u>
- 21. Bill Impacts

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 3 of 42



Ontario Energy Board 3<sup>RD</sup> Generation Incentive Regulation Model

Kingston Hydro Corporation - EB-2011-0178

Select the appropriate rate classes as they appear on your most recent Board-Approved Tariff of Rates and Charges. Note: The microFIT class does not exist in the drop-down menu below as it will automatically be inserted into your proposed Tariff Schedule.

## Rate Class

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 4 of 42



## Contario Energy Board 3<sup>RD</sup> Generation Incentive Regulation Model

Kingston Hydro Corporation - EB-2011-0178

Please note that unlike the Distribution Volumetric Rates, which will be entered in the following two tabs, all current Monthly Fixed Charges, including the base charges, must be entered on this tab. Please enter the descriptions of the current Monthly Fix Charges exactly as they appear on your most recent Board-Approved Tariff of Rates and Charges by using the drop-down menus under the column labeled "Rate Description". If the description is selected or entered into the green cells, the input cells for the "Unit", "Amount", and "Effective Date" will appear. Please note that the base Monthly Fixed Charge is identified in the drop-down list as a "Service Charge" to coincide with the description on the tariff. Please does that the base Monthly Fixed Charge is identified in the drop-down list as a "Service Charge" to coincide with the description on the tariff. Please does that the base Monthly Fixed Charge is identified in the drop-down list as a "Service Charge" to coincide with the description on the tariff. Please does and the drop-down list as a "Service Charge" to coincide with the description on the tariff. Please does and the drop-down list as a "Service Charge" for each class for which a base monthly fixed charge applies. "Note: Do not enter Standard Supply Service Rate. The rate will appear automatically on the final Tariff of Rates and Charges.

Rate Description	Unit	Amount	Effective Until Date
Residential			
Service Charge Smart Meter Funding Adder Rate Rider for Recovery of Late Payment Penalty Litigation Costs	\$ \$ \$	12.06 1.00 0.28	April 30, 2012 April 30, 2012
General Service Less Than 50 kW Service Charge	¢	24.83	
Service Charge Smart Meter Funding Adder Rate Rider for Recovery of Late Payment Penalty Litigation Costs	\$ \$ \$	1.00 0.68	April 30, 2012 April 30, 2012
General Service 50 to 4,999 kW Service Charge	\$	269.01	
Service Grange Smart Meter Funding Adder Rate Rider for Recovery of Late Payment Penalty Litigation Costs	9 \$ \$	1.00 6.78	April 30, 2012 April 30, 2012
Large Use Service Charge	\$	4959.68	
Smart Meter Funding Adder Rate Rider for Recovery of Late Payment Penalty Litigation Costs	\$ \$	1.00 127.93	April 30, 2012 April 30, 2012
Unmetered Scattered Load Service Charge	\$	11.09	
Rate Rider for Recovery of Late Payment Penalty Litigation Costs	\$	0.36	April 30, 2012
Street Lighting Service Charge	\$ \$	0.99	
Rate Rider for Recovery of Late Payment Penalty Litigation Costs	\$	0.02	April 30, 2012

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 5 of 42

#### Standby Power - APPROVED ON AN INTERIM BASIS

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 6 of 42



For each class, please enter the base Distribution Volumetric Rates ("DVR") from your most recent Board-Approved Tariff of Rates and Charges by using the drop-down menus and input cells in columns labeled "Unit" and "Amount".

3<sup>RD</sup> Generation Incentive **Regulation Model** 

Rate Description	Unit	Amount
Residential	\$/kWh	0.01480
General Service Less Than 50 kW	\$/kWh	0.01030
General Service 50 to 4,999 kW	\$/kW	1.92700
Large Use	\$/kW	1.01180
Unmetered Scattered Load	\$/kWh	0.01350
Street Lighting	\$/kW	4.49010
Standby Power - APPROVED ON AN INTERIM BASIS		

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 7 of 42



Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 8 of 42

Rate Rider for Foregone Incremental Revenue	\$/kW	0.10240	April 30, 2012
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Recovery (2011)	\$/kW	0.00030	April 30, 2012
Unmetered Scattered Load			
Low Voltage Service Rate	\$/kWh	0.00070	
Rate Rider for Global Adjustment Sub-Account (2010) – Applicable only for Non-RPP Customers	\$/kWh \$/kWh	0.00150 0.00130	April 30, 2012 April 30, 2013
Rate Rider for Global Adjustment Sub-Account (2011) – Applicable only for Non-RPP Customers Rate Rider for Deferral/Variance Account Disposition (2010)	\$/kWh	(0.00240)	April 30, 2013 April 30, 2012
Rate Rider for Deferral/Variance Account Disposition (2011)	\$/kWh	0.00070	April 30, 2013
Rate Rider for Foregone Incremental Revenue	\$/kWh	0.00100	April 30, 2012
Street Lighting			
Low Voltage Service Rate	\$/kW	0.18200	
Rate Rider for Global Adjustment Sub-Account (2011) – Applicable only for Non-RPP Customers	\$/kW	0.47470	April 30, 2013
Rate Rider for Foregone Incremental Revenue Rate Rider for Deferral/Variance Account Disposition (2010)	\$/kW \$/kW	0.42890 (0.53980)	April 30, 2012 April 30, 2012
Rate Rider for Deferral/Variance Account Disposition (2010)	\$/kW	0.05390)	April 30, 2012
	•		
Standby Power - APPROVED ON AN INTERIM BASIS			

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 9 of 42



Ontario Energy Board 3<sup>RD</sup> Generation Incentive Regulation Model

Kingston Hydro Corporation - EB-2011-0178

Please enter your RTS-Network Rates from your most recent Board-Approved Tariff of Rates and Charges by using the drop-down menus under the column labeled "Rate Description". If the description is not found in the drop-down menu, please enter the description in the green cells under the correct classes exactly as it appears on the tariff.

Rate Description	Unit	Amount
Residential		
Retail Transmission Rate – Network Service Rate	\$/kWh	0.00570
General Service Less Than 50 kW		
Retail Transmission Rate – Network Service Rate	\$/kWh	0.00520
General Service 50 to 4,999 kW		
Retail Transmission Rate – Network Service Rate	\$/kW	2.27970
	ţ,	
Large Use		
Retail Transmission Rate – Network Service Rate	\$/kW	2.74680
Unmetered Scattered Load		
Retail Transmission Rate – Network Service Rate	\$/kWh	0.00570
Street Lighting		
Retail Transmission Rate – Network Service Rate	\$/kW	1.64670
Standby Power - APPROVED ON AN INTERIM BASIS		

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 10 of 42



Contario Energy Board 3<sup>RD</sup> Generation Incentive Regulation Model

Kingston Hydro Corporation - EB-2011-0178

Please enter your RTS-Connection Rates from your most recent Board-Approved Tariff of Rates and Charges by using the drop-down menus under the column labeled "Rate Description". If the description is not found in the drop-down menu, please enter the description in the green cells under the correct classes <u>exactly</u> as it appears on the tariff.

Rate Description	Unit	Amount
Residential Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.00500
General Service Less Than 50 kW Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.00460
General Service 50 to 4,999 kW Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.98130
Large Use Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	2.38740
Unmetered Scattered Load Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.00500
Street Lighting Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.43110
Standby Power - APPROVED ON AN INTERIM BASIS		



Please complete the following continuity schedule for your Group 1 Deferral / Variance Accounts, Account 1521 and Account 1522. Enter information into green cells only. Lines 51-61 contain footnotes and further instructions.

If you have received approval to dispose of balances from prior years, the starting point for entries in the 2012 DVA schedub below will be the balance sheet date as per your G/L for which you received approval. For example, if in the 2011 EDR process (CoS or IRM) you received approval for the December 31, 2009 balances, the starting point for your entries below should be the adjustment column AV for principal and column BA for interest. This will allow for the correct starting point for the 2010 opening balance columns (for both principal and interest) without requiring entries dating back to the beginning of the continuity schedule ie: Jan 1, 2005.

									2	005								
Account Descriptions	Account Number	Prin		(0	Transactions Debit/ Credit) during 2005 cluding interest and adjustments <sup>5</sup>	Board-Approved Disposition during 2005	g A	Adjustments during 2005 - other <sup>3</sup>	Pi Bali	Closing rincipal ance as of ec-31-05	An	Opening Interest nounts as of Jan-1-05	st Jan-1 to :-31-05	Dispo	pproved sition g 2005	Adjustments during 2005 other <sup>3</sup>	A	osing Interest mounts as of Dec-31-05
Group 1 Accounts																		
LV Variance Account	1550								\$	-							\$	-
RSVA - Wholesale Market Service Charge	1580								\$	-							\$	-
RSVA - Retail Transmission Network Charge	1584								\$	-							\$	-
RSVA - Retail Transmission Connection Charge	1586								\$	-							\$	-
RSVA - Power (excluding Global Adjustment)	1588								\$	-							\$	-
RSVA - Power - Sub-Account - Global Adjustment	1588								\$	-							\$	-
Recovery of Regulatory Asset Balances	1590								\$	-							\$	-
Disposition and Recovery of Regulatory Balances (2008)	1595								\$	-							\$	-
Disposition and Recovery of Regulatory Balances (2009) <sup>7</sup>	1595								\$	-							\$	-
Group 1 Sub-Total (including Account 1588 - Global Adjustment)		\$	-	\$	-	s -	9	s -	\$	-	\$	-	\$	\$	-	\$-	\$	
Group 1 Sub-Total (excluding Account 1588 - Global Adjustment)		\$	-	\$	-	\$ - \$	07 07 0	s -	\$ \$	-	\$	-	\$ -	S	-	\$ -	\$	-
RSVA - Power - Sub-Account - Global Adjustment	1588	\$	-	\$	-	\$-	9	ş -	\$	-	\$	-	\$ -	\$	-	\$ -	\$	-
Special Purpose Charge Assessment Variance Account	1521																	
Deferred Payments in Lieu of Taxes	1562																	
Group 1 Total + 1521 + 1562		\$	-	\$	-	\$-	5	s -	\$	-	\$	-	\$ -	s	-	\$-	\$	
The following is not included in the total claim but are included on a memo basis:																		
Board-Approved CDM Variance Account	1567											_						
PILs and Tax Variance for 2006 and Subsequent Years																		
(excludes sub-account and contra account below)	1592																	
PILs and Tax Variance for 2006 and Subsequent Years -	1592																	
Sub-Account HST/OVAT Input Tax Credits (ITCs)	1592																	
PILs and Tax Variance for 2006 and Subsequent Years -	1592																	
Sub-Account HST/OVAT Contra Account									\$	-							\$	-
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595								\$	-							\$	-

For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e.g. debit balances are to have a positive figure and credit balance are to have a negative figure) as per the related Board decision.

<sup>1</sup> Applicants may wish to propose kWh as the allocator for account 1521 pending a final decision of the Board

<sup>2</sup> Provide supporting statement indicating whether due to denial of costs in 2006 EDR by the Board, 10% transition costs write-off, etc.

2A Adjustments Instructed by the Board include deferral/variance account balances moved to Account 1590 as a result of the 2006 EDR and account 1595 during the 2008 EDR and subsequent years as ordered by the Board.

<sup>3</sup> Please provide explanations for the nature of the adjustments. If the adjustment relates to previously Board Approved disposed balances, please provide amounts for adjustments and include supporting documentations.

<sup>4</sup> Although the Global Adjustment Account is not reported separately under 2.1.7, please provide a breakdown in rows 28 and 29.

<sup>5</sup> For RSVA accounts only, report the net variance to the account during the year. For all other accounts, record the transactions during the year.

For KSVA accounts only, report the net varance to the account outring me year. For all other accounts, record the transactions during me year. 6 If the LDC's 2011 rate year started January 1, the projected interest is recorded from January 1, 2011 to Apeni 30, 11 on the December 31, 2010 balance adjusted for the disposed balances approved by the Board in the 2011 rate decision. If the LDC's 2011 rate year started May 1, the projected interest is recorded from January 1, 2011 to April 30, 11 on the December 31, 2010 balance. The projected interested is recorded from May 1, 2011 to April 30, 2012 on the December 31, 2010 balance adjusted for the disposed balances approved by the Board in the 2011 rate decision.

<sup>7</sup> Include Account 1595 as part of Group 1 accounts (line 31) for review and disposition if the recovery (or refund) period has been completed, and the audited financial statements

support the underlying residual balance in account 1595. If the recovery (or refund) period has not been completed, include the balances in Account 1595 on a memo basis only (line 49).

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 12 of 42



lease complete the following continuity schedule for your Group 1 Deferral / Variance Accounts, Account 1521 votnotes and further instructions.

you have received approval to dispose of balances from prior years, the starting point for entries in the 2012 D sceived approval. For example, if in the 2011 EDR process (CoS or IRM) you received approval for the Decembe djustment column AV for principal and column BA for interest. This will allow for the correct starting point for I ntries dating back to the beginning of the continuity schedule let Jan 1, 2005.

								2006						
Account Descriptions	Account Number	Openin Princip Amounts as 1-06	al	Transactions Debit / (Credit) during 2006 excluding interest and adjustments <sup>5</sup>	Board-Approved Disposition during 2006 <sup>2,2A</sup>	Adjustment 2006 - ot		Closing Principal Balance as o Dec-31-06	of A	Opening Interest Amounts as of Jan-1-06	Interest Jan-1 to Dec-31-06	Board-Approved Disposition during 2006 <sup>2, 2A</sup>	during 2006 -	Closing Interest Amounts as of Dec-31-06
Group 1 Accounts	1550	\$						s -	9	s -				s -
RSVA - Wholesale Market Service Charge	1580	\$						\$ -	ŝ	- 6				\$ -
RSVA - Retail Transmission Network Charge	1584	\$	-					\$ -	\$	6 -				\$ -
RSVA - Retail Transmission Connection Charge	1586	\$	-					\$-	\$	6 -				\$-
RSVA - Power (excluding Global Adjustment)	1588	\$	-					\$ -	\$	6 -				\$-
RSVA - Power - Sub-Account - Global Adjustment	1588	\$	-					\$ -	\$	ş -				\$ -
Recovery of Regulatory Asset Balances	1590	\$	-					\$ -	4	-				\$ -
Disposition and Recovery of Regulatory Balances (2008) <sup>7</sup>	1595	\$	-					\$ -	\$	5 -				\$ -
Disposition and Recovery of Regulatory Balances (2009) <sup>7</sup>	1595	\$	-					\$-	\$	5 -				\$-
Group 1 Sub-Total (including Account 1588 - Global Adjustment) Group 1 Sub-Total (excluding Account 1588 - Global Adjustment) RSVA - Power - Sub-Account - Global Adjustment	1588	\$ \$ \$	-	\$ - \$ - \$ -	s - s - s -	\$ \$ \$	-	\$ - \$ - \$ -	67 67 67	6 - 6 - 6 -	s - s - s -	\$- \$- \$-	\$- \$- \$-	\$- \$- \$-
Special Purpose Charge Assessment Variance Account	1521													
Deferred Payments in Lieu of Taxes	1562													\$-
Group 1 Total + 1521 + 1562		\$	-	s -	\$-	\$	-	\$-	\$	6 -	\$-	\$-	\$-	\$-
The following is not included in the total claim but are included on a memo basis:														
Board-Approved CDM Variance Account	1567													
PILs and Tax Variance for 2006 and Subsequent Years	1592													
(excludes sub-account and contra account below)	1592													
PILs and Tax Variance for 2006 and Subsequent Years -	1592													
Sub-Account HST/OVAT Input Tax Credits (ITCs)														
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Contra Account	1592	s						s -	5	- a				s -
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595	¢						¢.	4 6					¢ .
	1090	Ψ	-					Ψ -	4	-				Ψ -

#### For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e. negative figure) as per the related Board decision.

Applicants may wish to propose kWh as the allocator for account 1521 pending a final decision of the Board

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 13 of 42



lease complete the following continuity schedule for your Group 1 Deferral / Variance Accounts, Account 1521 votnotes and further instructions.

you have received approval to dispose of balances from prior years, the starting point for entries in the 2012 D sceived approval. For example, if in the 2011 EDR process (CoS or IRM) you received approval for the Decembe djustment column AV for principal and column BA for interest. This will allow for the correct starting point for I ntries dating back to the beginning of the continuity schedule let Jan 1, 2005.

						2007					
Account Descriptions	Account Number	Opening Principal Amounts as of Jan- 1-07	Transactions Debit / (Credit) during 2007 excluding interest and adjustments <sup>5</sup>	Board-Approved Disposition during 2007	Adjustments during 2007 - other <sup>3</sup>	Closing Principal Balance as of Dec-31-07	Opening Interest Amounts as of Jan-1-07	Interest Jan-1 t Dec-31-07	Board-Approved Disposition during 2007	Adjustments during 2007 - other <sup>3</sup>	Closing Interest Amounts as of Dec-31-07
Group 1 Accounts	1550 1580	\$ - \$ - \$ -				s - s -	s - s -				s - s -
RSVA - Retail Transmission Network Charge RSVA - Retail Transmission Connection Charge RSVA - Power (excluding Global Adjustment) RSVA - Power - Sub-Account - Global Adjustment	1584 1586 1588 1588	\$- \$- \$- \$-				\$- \$- \$- \$-	\$- \$- \$- \$-				\$- \$- \$- \$-
Recovery of Regulatory Asset Balances <sup>-</sup> Disposition and Recovery of Regulatory Balances (2008) <sup>-</sup> Disposition and Recovery of Regulatory Balances (2009) <sup>-</sup>	1590 1595 1595	\$- \$- \$-				\$- \$- \$-	\$- \$- \$-				\$- \$- \$-
Group 1 Sub-Total (including Account 1588 - Global Adjustment) Group 1 Sub-Total (excluding Account 1588 - Global Adjustment) RSVA - Power - Sub-Account - Global Adjustment	1588	\$ - \$ - \$ -	\$ - \$ - \$ -	\$- \$- \$-	\$- \$- \$-	\$- \$- \$-	\$- \$- \$-	s - s - s -	\$- \$- \$-	\$- \$- \$-	\$- \$- \$-
Special Purpose Charge Assessment Variance Account	1521										
Deferred Payments in Lieu of Taxes Group 1 Total + 1521 + 1562	1562	\$-  \$-	s -	s -	\$ -	s - s -	s - s -	s -	\$ -	\$-	\$ - \$ -
The following is not included in the total claim but are included on a memo basis: Board-Approved CDM Variance Account PILs and Tax Variance for 2006 and Subsequent Years (excludes sub-account and contra account below)	1567 1592										
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Input Tax Credits (ITCs) PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Contra Account Disposition and Recovery of Regulatory Balances'	1592 1592 1595	\$ -				\$ -	\$ -				\$ -
Disposition and Recovery of Regulatory balances	1595	ъ -				ф -	ъ -				<b>р</b> -

#### For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e. negative figure) as per the related Board decision.

Applicants may wish to propose kWh as the allocator for account 1521 pending a final decision of the Board

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 14 of 42



lease complete the following continuity schedule for your Group 1 Deferral / Variance Accounts, Account 1521 votnotes and further instructions.

you have received approval to dispose of balances from prior years, the starting point for entries in the 2012 D sceived approval. For example, if in the 2011 EDR process (CoS or IRM) you received approval for the Decembe djustment column AV for principal and column BA for interest. This will allow for the correct starting point for I ntries dating back to the beginning of the continuity schedule let Jan 1, 2005.

							2008					
Account Descriptions	Account Number	Openin Principa Amounts as 1-08	al	Transactions Debit / (Credit) during 2008 excluding interest and adjustments <sup>5</sup>	Board-Approved Disposition during 2008	Adjustments during 2008 - other <sup>3</sup>	Closing Principal Balance as of Dec-31-08	Opening Interest Amounts as Jan-1-08	Interest Jan of Dec-31-0		Adjustments during 2008 - other <sup>3</sup>	Closing Interest Amounts as of Dec-31-08
Group 1 Accounts												
LV Variance Account	1550	\$	-				\$-	\$ -				\$-
RSVA - Wholesale Market Service Charge	1580	\$ \$	-				ş -	ş -				ş -
RSVA - Retail Transmission Network Charge RSVA - Retail Transmission Connection Charge	1584 1586	ծ Տ	-				ъ - с	ъ - е				\$ - ¢
RSVA - Power (excluding Global Adjustment)	1588	s S	1				s -	s -				s -
RSVA - Power - Sub-Account - Global Adjustment	1588	ŝ					\$ -	\$ -				\$ -
Recovery of Regulatory Asset Balances	1590	\$	-				\$-	\$ -				\$ -
Disposition and Recovery of Regulatory Balances (2008)7	1595	\$	-				s -	\$-				s -
Disposition and Recovery of Regulatory Balances (2009)7	1595	\$	-				\$-	\$ -				\$ -
Group 1 Sub-Total (including Account 1588 - Global Adjustment) Group 1 Sub-Total (excluding Account 1588 - Global Adjustment) RSVA - Power - Sub-Account - Global Adjustment	1588	\$ \$ \$	-	\$ - \$ - \$ -	s - s - s -	\$ - \$ - \$ -	\$- \$- \$-	\$ - \$ - \$ -	\$ \$ \$	- \$ - - \$ - - \$ -	\$- \$- \$-	\$- \$- \$-
Special Purpose Charge Assessment Variance Account	1521											
Deferred Payments in Lieu of Taxes	1562	\$	- 1				\$-	\$-				\$-
Group 1 Total + 1521 + 1562		\$	-	s -	s -	\$-	s -	\$-	\$	- \$ -	\$-	s -
The following is not included in the total claim but are included on a memo basis:												
Board-Approved CDM Variance Account	1567											
PILs and Tax Variance for 2006 and Subsequent Years	1592											
(excludes sub-account and contra account below)	1002											
PILs and Tax Variance for 2006 and Subsequent Years -	1592											
Sub-Account HST/OVAT Input Tax Credits (ITCs) PILs and Tax Variance for 2006 and Subsequent Years -												
Sub-Account HST/OVAT Contra Account	1592	\$					s -	\$-				s -
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595	s	. 1				s -	\$				s -
. , , , , , , , , , , , , , , , , , , ,		<u>, 7</u>					T					

#### For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e. negative figure) as per the related Board decision.

Applicants may wish to propose kWh as the allocator for account 1521 pending a final decision of the Board

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 15 of 42



lease complete the following continuity schedule for your Group 1 Deferral / Variance Accounts, Account 1521 votnotes and further instructions.

you have received approval to dispose of balances from prior years, the starting point for entries in the 2012 D sceived approval. For example, if in the 2011 EDR process (CoS or IRM) you received approval for the Decembe djustment column AV for principal and column BA for interest. This will allow for the correct starting point for I ntries dating back to the beginning of the continuity schedule let Jan 1, 2005.

								20	009									
Account Descriptions	Account Number	Openi: Princip Amounts as 1-09	oal 5 of Jan-	Transactions Debit / (Credit) during 2009 excluding interest and adjustments <sup>5</sup>	Board-Approved Disposition during 2009		ljustments during 2009 - other <sup>3</sup>	Pr Bala	Closing rincipal ance as of ec-31-09	Inte Amour	ening erest nts as of -1-09	Interest Ja Dec-31-		Board-Approved Disposition during 2009		djustments tring 2009 - other <sup>3</sup>	Am	ing Interest ounts as of Dec-31-09
Group 1 Accounts																		
LV Variance Account	1550	¢				¢	1.076.842	\$	1.076.842	¢	_				¢	57.995	¢	57,995
RSVA - Wholesale Market Service Charge	1580	ŝ	1			-\$	2.228.936			ŝ	-				-\$	107.308		107,308
RSVA - Retail Transmission Network Charge	1584	ŝ	1			-\$	388,453		388.453		-				-\$	130,742		130,742
RSVA - Retail Transmission Connection Charge	1586	ŝ				ŝ	108,422		108,422		-				-\$	85,921		85,921
RSVA - Power (excluding Global Adjustment)	1588	ŝ	-			-\$	841.886			ŝ	-				-\$	71,035		71,035
RSVA - Power - Sub-Account - Global Adjustment	1588	ŝ	-			Š	1,964,763		1,964,763	ŝ	-				Š	26,050		26,050
Recovery of Regulatory Asset Balances	1590	ŝ	-			-\$	771,256		771.256	ŝ	-				Š	368,782		368,782
Disposition and Recovery of Regulatory Balances (2008)7	1595	s.				-	,	¢	-	¢	-				<u> </u>		ŝ	,
Disposition and Recovery of Regulatory Balances (2009) <sup>7</sup>	1595	φ ¢						¢		¢ ¢							¢	
Disposition and Recovery of Regulatory balances (2009)	1595	φ	-					φ	-	φ	-						φ	-
Group 1 Sub-Total (including Account 1588 - Global Adjustment)		s	-	s -	s -	-\$	1.080.504	-\$ 1	1.080.504	\$	-	s	-	s -	\$	57.821	\$	57,821
Group 1 Sub-Total (excluding Account 1588 - Global Adjustment)		ŝ	-	s -	š -	-\$				ŝ	-	š	-	\$ -	ŝ	31,771		31,771
RSVA - Power - Sub-Account - Global Adjustment	1588	\$	-	\$ -	\$ -	\$			1,964,763	\$	-	ŝ	-	\$-	\$	26,050		26,050
Special Purpose Charge Assessment Variance Account	1521																	
Deferred Payments in Lieu of Taxes	1562	\$	-					\$	-	\$	-						\$	-
Group 1 Total + 1521 + 1562		¢		•		-\$	1.080.504		1.080.504	¢		~		¢	¢	57.821	¢	57,821
Group 1 Total + 1521 + 1562		2	-	s -	s -	-⊅	1,080,504	-2	1,080,504	Э	-	3	-	<b>\$</b> -	Э	57,821	Э	57,821
The following is not included in the total claim but are included on a memo basis:																		
Board-Approved CDM Variance Account	1567	•												1				
PILs and Tax Variance for 2006 and Subsequent Years																		
(excludes sub-account and contra account below)	1592																	
PILs and Tax Variance for 2006 and Subsequent Years -			i											1			i	
Sub-Account HST/OVAT Input Tax Credits (ITCs)	1592																	
PILs and Tax Variance for 2006 and Subsequent Years -	1500	I																
Sub-Account HST/OVAT Contra Account	1592	\$	-					\$	-	\$	-						\$	-
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595	s	-					\$	1	\$	-						\$	-

#### For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e. negative figure) as per the related Board decision.

Applicants may wish to propose kWh as the allocator for account 1521 pending a final decision of the Board
Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 16 of 42



lease complete the following continuity schedule for your Group 1 Deferral / Variance Accounts, Account 1521 votnotes and further instructions.

you have received approval to dispose of balances from prior years, the starting point for entries in the 2012 D received approval. For example, if in the 2011 EDR process (CoS or IRM) you received approval for the Decembe djustment column AV for principal and column BA for interest. This will allow for the correct starting point for I ntries dating back to the beginning of the continuity schedule ie: Jan 1, 2005.

							201	0						
Account Descriptions	Account Number	Opening Principal Amounts as of Jan 1-10	Transactions Debit / (Credit) during 2010 excluding interest and adjustments <sup>5</sup>	Board-Approved Disposition during 2010	Other <sup>3</sup> Adjustments during Q1 2010	Other <sup>3</sup> Adjustments during Q2 2010	Other <sup>3</sup> Adjustments during Q3 2010	Other <sup>3</sup> Adjustments during Q4 2010	Closing Principal Balance as of Dec-31-10	Opening Interest Amounts as of Jan-1-10	Interest Jan-1 to Dec-31-10	Board-Approved Disposition during 2010	Adjustments during 2010 - other <sup>3</sup>	Closing Interest Amounts as of Dec-31-10
Group 1 Accounts														
LV Variance Account	1550	\$ 1.076.842	\$ 127.004	\$ 954,176					\$ 249.670	\$ 57.995	\$ 3.092	\$ 59,019		\$ 2,068
RSVA - Wholesale Market Service Charge	1580	-\$ 2,228,936	-\$ 799,237						\$ 1,077,319	-\$ 107,308	-\$ 9,410			-\$ 7,102
RSVA - Retail Transmission Network Charge	1584	-\$ 388,453		-\$ 681,877					\$ 617,073	-\$ 130,742	\$ 2,192	-\$ 132,881		\$ 4,331
RSVA - Retail Transmission Connection Charge	1586	\$ 108,422							\$ 709,877	-\$ 85,921				\$ 5,391
RSVA - Power (excluding Global Adjustment)	1588	-\$ 841,886												-\$ 8,930
RSVA - Power - Sub-Account - Global Adjustment	1588	\$ 1,964,763							\$ 842,221	\$ 26,050				\$ 2,510
Recovery of Regulatory Asset Balances	1590	-\$ 771,256	-\$ 95	-\$ 770,921					-\$ 430	\$ 368,782	-\$ 1,397	\$ 367,387		-\$ 2
Disposition and Recovery of Regulatory Balances (2008)7	1595	\$-							\$-	\$-				\$-
Disposition and Recovery of Regulatory Balances (2009)7	1595	\$-							\$-	\$-				\$-
Group 1 Sub-Total (including Account 1588 - Global Adjustment) Group 1 Sub-Total (excluding Account 1588 - Global Adjustment) RSVA - Power - Sub-Account - Global Adjustment	1588	-\$ 1,080,504 -\$ 3,045,267 \$ 1,964,763	-\$ 84,325	-\$ 2,934,457	\$ -	s - s - s -	\$- \$- \$-	\$- \$- \$-	\$ 647,086 -\$ 195,135 \$ 842,221	\$ 57,821 \$ 31,771 \$ 26,050	-\$ 6,422	\$ 29,593	\$ -	-\$ 1,734 -\$ 4,244 \$ 2,510
Special Purpose Charge Assessment Variance Account	1521								\$-					\$-
Deferred Payments in Lieu of Taxes	1562	\$-							\$-	\$-				\$-
Group 1 Total + 1521 + 1562		-\$ 1,080,504	-\$ 101,489	-\$ 1,829,079	s -	\$ -	\$-	\$-	\$ 647,086	\$ 57,821	-\$ 2,596	\$ 56,959	\$-	-\$ 1,734
The following is not included in the total claim but are included on a memo basis: Board-Approved CDM Variance Account	1567								s -	e				¢
PILs and Tax Variance for 2006 and Subsequent Years									ф -	φ -				ф -
(excludes sub-account and contra account below)	1592	-\$ 61,346	-\$ 11,009						-\$ 72,355	\$-				\$-
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Input Tax Credits (ITCs)	1592		-\$ 70,384						\$ 70,384	\$-				\$ -
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Contra Account	1592	s -	\$ 70.384						\$ 70,384	s -				s -
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595	¢	\$ 410.078	\$ 1.829.079					\$ 1,419,001	\$ -	-\$ 9.353	-\$ 56.959		\$ 47,606
	1090	Ψ	Ψ <del>4</del> 10,078	ψ 1,023,079					-ψ Ι,4Ι3,00Ι	φ -	-y 9,000	-y J0,959		ψ <del>4</del> 7,000

For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e. negative figure) as per the related Board decision.

Applicants may wish to propose kWh as the allocator for account 1521 pending a final decision of the Board Provide supporting statement indicating whether due to denial of costs in 2006 EDR by the Board, 10% transition costs wr Adjustments Instructed by the Board include deferral/variance account balances moved to Account 1950 as a result of the Please provide explanations for the nature of the adjustments. If the adjustment relates to previously Board Approved disp Although the Global Adjustment Account is not reported separately under 2.1.7, please provide a breakdown in rows 28 an For RSVA accounts only, report the net variance to the account doming the year. For all other accounts, record the retwore 31, 20 Board in the 2011 rate year started January 1, the projected interest is recorded from January 1, 2011 to December 31, 20 Board in the 2011 rate year started Vanuary 1 rate year started May 1, the projected interest is recorded from January 1, 2011 to April 30, 2012 on the December 31, 2010 balance adjusted for the disposed balances appro Include Account 1595 as part of Group 1 accounts (line 31) for review and disposition if the recovery (or refund) period has rate period has support the underlying residual balance in account (1956. If the recovery (or refund) period has not been completed, include support the underlying residual balance in account (1956. If the recovery (or refund) period has not been completed, include account 1595 as part of Group 1 accounts (line 31) for review and disposition if the necovery (or refund) period has support the underlying residual balance in account (1956. If the recovery (or refund) period has rate.

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 17 of 42



lease complete the following continuity schedule for your Group 1 Deferral / Variance Accounts, Account 1521 potnotes and further instructions.

you have received approval to dispose of balances from prior years, the starting point for entries in the 2012 D sceived approval. For example, if in the 2011 EDR process (CoS or IRM) you received approval for the Decembe djustment column AV for principal and column BA for interest. This will allow for the correct starting point for I ntries dating back to the beginning of the continuity schedule is: Jan 1, 2005.

					2011				Projected Inte	erest on Dec-31-	10 Balances	2.1.7 RRR	
Account Descriptions	Account Number	Principa Dispositio during 201 instructed Board	n 1 1-d	Interest Disposition uring 2011 - astructed by Board	Balances a Adji Disposi	usted for	Closing Interest Balan as of Dec 31-10 Adjust during 2011 Dispositio	ces 20 red De	rojected Interest from Jan 1, 011 to December 31, 2011 on ec 31 -10 balance adjusted for disposition during 2011 <sup>5</sup>	Projected Interest from January 1, 2012 to April 30, 2012 on Dec 31 -10 balance adjusted for disposition during 2011 <sup>6,7</sup>	Total Claim	As of Dec 31-10 <sup>4</sup>	Variance RRR vs. 2010 Balance (Principal + Interest)
Group 1 Accounts													
LV Variance Account	1550	\$ 122.	66 S	1,944	s	127.004	\$ 12	4 \$	1.867	\$ 619	\$ 129,614	\$ 251,73	-S 1
RSVA - Wholesale Market Service Charge	1580		82 -\$	4,040		799,237							
RSVA - Retail Transmission Network Charge	1584	\$ 293,	24 \$	3,882	\$	323,649	\$ 44	9 \$	4,758	\$ 1,577	\$ 330,433	\$ 621,40	s -
RSVA - Retail Transmission Connection Charge	1586		86 \$	5,058		346,391			5,092				
RSVA - Power (excluding Global Adjustment)	1588		69 -\$	11,095		82,037							
RSVA - Power - Sub-Account - Global Adjustment	1588		85 \$	6,898		17,164			252				
Recovery of Regulatory Asset Balances	1590	-\$	35 -\$	1	-\$	95	-\$	1 -\$	1	\$ -	-\$ 97	-\$ 43	-\$ 1
Disposition and Recovery of Regulatory Balances (2008)	1595				\$	-	\$-				\$-		s -
Disposition and Recovery of Regulatory Balances (2009) <sup>7</sup>	1595				\$	-	\$-				\$-		s -
Group 1 Sub-Total (including Account 1588 - Global Adjustment) Group 1 Sub-Total (excluding Account 1588 - Global Adjustment) RSVA - Power - Sub-Account - Global Adjustment	1588	-\$ 110,	575 \$ 310 -\$ 385 \$	2,646 4,252 6,898	-\$	101,489 84,325 17,164	\$	8 -\$	1,491 1,239 252	-\$ 411	-\$ 85,967	-\$ 199,38	-\$ 1
Special Purpose Charge Assessment Variance Account	1521										\$-	\$ 133,59	\$ 133,591
Deferred Payments in Lieu of Taxes	1562				\$	-	\$-				\$-	\$ 498,68	\$ 498,685
Group 1 Total + 1521 + 1562		\$ 748.	575 \$	2,646	-\$	101,489	-\$ 4,38	0 -\$	1,491	-\$ 495	-\$ 107,855	\$ 1,277,62	\$ 632,275
The following is not included in the total claim but are included on a memo basis:													
Board-Approved CDM Variance Account	1567										\$-		s -
PILs and Tax Variance for 2006 and Subsequent Years (excludes sub-account and contra account below)	1592										-\$ 72,355	-\$ 61,34	\$ 11,009
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Input Tax Credits (ITCs)	1592										-\$ 70,384	-\$ 70,38	\$-
PILs and Tax Variance for 2006 and Subsequent Years - Sub-Account HST/OVAT Contra Account	1592										\$ 70,384	\$ 70,38	s -
Disposition and Recovery of Regulatory Balances <sup>7</sup>	1595										-\$ 1,371,395		

#### For all Board-Approved dispositions, please ensure that the disposition amount has the same sign (e. negative figure) as per the related Board decision.

Applicants may wish to propose kWh as the allocator for account 1521 pending a final decision of the Board

Provide supporting statement indicating whether due to denial of costs in 2006 EDR by the Board, 10% transition costs wr Adjustments Instructed by the Board include deferal/variance account balances moved to Account 1590 as a result of the Please provide explanations for the nature of the adjustment. If the adjustment relates to previously Board Approved disp Although the Global Adjustment Account is not reported separately under 2.1.7, please provide a breakdown in rows 28 an For RSVA accounts only, report the net variance to the account during the year. For all other accounts, record the transac fif the LDC's 2011 rate year stated January 1, the projected interest is recorded from January 1, 2011 to December 31, 2010 balance abjusted for the Board Approved disp recorded from Mgr 1, 2011 to April 30, 2012 on the December 31, 2010 balance abjusted for the Board Approved Index lances apport the underlying residual balance in accounts (line 31) for review and disposition if the recovery (or refund) period has not support the underlying residual balance in accounts (line 31) for review and disposition if the recovery (or refund) period has not support the underlying residual balance in accounts (line 31) for review and disposition if the recovery (or refund) period has not support the underlying residual balance in account (line 31) for review and disposition if the recovery (or refund) period has not support the underlying residual balance in account (line 31) for review and disposition if the recovery (or refund) period has resupport the underlying residual balance in account (line 31) for review and disposition if the recovery (or refund) period has resupport the underlying residual balance in account (line 31) for review and disposition if the recovery (or refund) period has resupport the underlying residual balance in account (line 31) for review and disposition if the recovery (or refund) period has not balance in account (line 31) for review and disposition if the recovery (or refund) period has not balance

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 18 of 42



In the green shaded cells, enter the most recent Board Approved volumetric forecast. If there is a material difference between the latest Board-approved volumetric forecast and the

Rate Class	Unit	Me	tered kWh	Metered kW	Billed kWh for Non-RPP Customers	Estimated kW for Non-RPP Customers	Distribution Revenue <sup>1</sup>	1590 Recovery Share Proportion*	1595 Recovery Share Proportion (2008) <sup>2</sup>	1595 Recovery Share Proportion (2000) <sup>2</sup>
Residential	\$/kWh		194,606,362		17,867,642	-	6,257,879			
General Service Less Than 50 kW	\$/kWh		93,096,784		13,582,827	-	1,925,310			
General Service 50 to 4,999 kW	\$/kW		259,610,762	701,859	186,305,709	503,678	2,330,378			
Large Use	\$/kW		152,017,673	297,737	152,017,673	297,737	413,990			
Unmetered Scattered Load	\$/kWh		2,275,040		1,206,779	-	52,530			
Street Lighting	\$/kW		4,024,186	11,336	4,024,186	11,336	111,950			
Standby Power - APPROVED ON AN INTERIM BASIS						-				
Total			705,630,807	1,010,932	375,004,816	812,751	11,092,037	0%	0%	0%
Total Claim (including Accounts 1521 and 1562)		-\$	107,855							
Total Claim for Threshold Test (All Group 1 Accounts)		-\$	107,855							
Threshold Test <sup>3</sup> (Total Claim per kWh)				Claim does not mee dispose of Account		If data has been ente	ered on Sheet 9 for .	Accounts 1521 and 18	562, the model will only	

<sup>1</sup> For Account 1562, the allocation to customer classes should be performed on the basis of the test year distribution revenue allocation to customer classes found in the Applicant's Cost of Service application that was most recently approved at the time of disposition of the 1562 account balance.

<sup>2</sup> Residual Account balance to be allocated to rate classes in proportion to the recovery share as established when rate riders were implemented.

<sup>3</sup> The Threshold Test does not include the amount in 1521 nor 1562.

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 19 of 42





Kingston Hydro Corporation - EB-2011-0178

No input required. This workshseet allocates the deferral/variance account balances (Group 1, 1521, 1588 GA and 1562) to the appropriate classes.

### Allocation of Group 1 Accounts (Excluding Account 1588 - Global Adjustment)

Rate Class	Units	Billed kWh	% kWh	1550	1580	1584	1586	1588*	1590	1595 (2008)	1595 (2009)	1521	Total
Residential	\$/kWh	194,606,362	27.58%	0	0	0	0	0	0	0	0	0	0
General Service Less Than 50 kW	\$/kWh	93,096,784	13.19%	0	0	0	0	0	0	0	0	0	0
General Service 50 to 4,999 kW	\$/kW	259,610,762	36.79%	0	0	0	0	0	0	0	0	0	0
Large Use	\$/kW	152,017,673	21.54%	0	0	0	0	0	0	0	0	0	0
Unmetered Scattered Load	\$/kWh	2,275,040	0.32%	0	0	0	0	0	0	0	0	0	0
Street Lighting	\$/kW	4,024,186	0.57%	0	0	0	0	0	0	0	0	0	0
Standby Power - APPROVED ON AN INTERIM BASIS	-		0.00%	0	0	0	0	0	0	0	0	0	0
Total		705,630,807	100.00%	129,614	(817,943)	330,433	353,504	(81,478)	(97)	0	0	0	0

\* RSVA - Power (Excluding Global Adjustment)

### 1588 RSVA - Power (Global Adjustment Sub-Account)

Rate Class	non-RPP kWh	% kWh	1588
Residential	17,867,642	4.76%	-
General Service Less Than 50 kW	13,582,827	3.62%	-
General Service 50 to 4.999 kW	186,305,709	49.68%	-
Large Use	152.017.673	40.54%	-
Unmetered Scattered Load	1.206.779	0.32%	-
Street Lighting	4.024.186	1.07%	-
Standby Power - APPROVED ON AN INTERIM BASIS	-	0.00%	-
Total	375,004,816	100.00%	(21,888)

#### Allocation of Account 1562

	% of Distribution Revenue	Allocation of Balance in Account 1562
Residential	56.4%	-
General Service Less Than 50 kW	17.4%	-
General Service 50 to 4,999 kW	21.0%	-
Large Use	3.7%	-
Unmetered Scattered Load	0.5%	-
Street Lighting	1.0%	-
Standby Power - APPROVED ON AN INTERIM BASIS	0.0%	-
Total	100.0%	-

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 20 of 42



No input required. This workshseet calculates rate riders related to the Deferral/Variance Account Disposition (if applicable) and associated rate riders for the global adjustment sub-account.

Please indicate the Rate Rider Recovery Period 1 (in years)

Rate Class	Unit	Billed kWh	Billed kW	All kWi or E	Accounts located by h/kW (RPP) Distribution Revenue	Deferral/Variance Account Rate Rider	G	unt 1588 obal stment	Billed kWh or Estimated kW for Non-RPP	Global Adjustment Rate Rider
Residential	\$/kWh	194,606,362	-	\$	-	\$0.00000	\$	-	17,867,642	\$0.00000
General Service Less Than 50 kW	\$/kWh	93,096,784	-	\$	-	\$0.00000	\$	-	13,582,827	\$0.00000
General Service 50 to 4,999 kW	\$/kW	259,610,762	701,859	\$	-	\$0.00000	\$	-	503,678	\$0.00000
Large Use	\$/kW	152,017,673	297,737	\$	-	\$0.00000	\$	-	297,737	\$0.00000
Unmetered Scattered Load	\$/kWh	2,275,040	-	\$	-	\$0.00000	\$	-	1,206,779	\$0.00000
Street Lighting	\$/kW	4,024,186	11,336	\$	-	\$0.00000	\$	-	11,336	\$0.00000
Standby Power - APPROVED ON AN INTERIM BASIS	-	-	-	\$	-	\$0.00000	\$	-	-	\$0.00000
Total		705,630,807	1,010,932	\$	-		\$	-		

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 21 of 42



Below is a listing of the current Monthly Fixed Charges. All rates with expired effective dates have been removed. In columns "B", "K", and "M" (green cells), please enter all additional Monthly Fixed Charges you are proposing (eg: Smart Meter Funding Adder, etc). Please ensure that the word "Rider" or "Adder" is included in the description (as applicable).

Rate Description	Unit	Amount	Effective Until Date	Proposed Amount	Effective Until Date
Residential					
Service Charge	\$	12.06			
Rate Rider for Incremental Capital (2012)	\$			0.29	April 30, 2015
	\$				
	\$				
General Service Less Than 50 kW					
Service Charge	\$	24.83			
Rate Rider for Incremental Capital (2012)	\$			0.59	April 30, 2015
	\$				
	\$				
General Service 50 to 4,999 kW					
Service Charge	\$	269.01			
Rate Rider for Incremental Capital (2012)	\$			6.39	April 30, 2015
	ֆ Տ				
Large Has	Ф				
Large Use	¢	1050.00			
Service Charge Rate Rider for Incremental Capital (2012)	\$	4959.68		117.75	April 30, 2015
Rate Rider for incremental Capital (2012)	¢ ¢			117.75	April 30, 2015
	э \$				
Unmetered Scattered Load	Ψ				
Service Charge	\$	11.09			
Rate Rider for Incremental Capital (2012)	\$	11.00		0.26	April 30, 2015
	\$			0120	, ipin 66, 2010
	\$				
Street Lighting					
Service Charge	\$	0.99			
Rate Rider for Incremental Capital (2012)	\$			0.02	April 30, 2015

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 22 of 42

	\$
	\$
Standby Power - APPROVED ON AN INTERIM BASIS	
	\$
	\$
	\$



Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 23 of 42



Contario Energy Board 3<sup>RD</sup> Generation Incentive Regulation Model

Kingston Hydro Corporation - EB-2011-0178

Below is a listing of the current Distribution Volumetric Rates other than the base rates. All rates with expired effective dates have been removed. In columns "B", "K", and "M" (green cells), please enter all additional volumetric rates you are proposing (eg: LRAM/SSM, Tax Adjustments, etc.). Please ensure that the word "Rider" or "Adder" is included in the description (as applicable).

Rate Description	Unit	Amount	Effective Until Date	Proposed Amount	Effective Until Date
Residential					
Low Voltage Service Rate	\$/kWh	0.00070			
Rate Rider for Global Adjustment Sub-Account (2011) – Applicable only for Non-RPP Customers	\$/kWh	0.00130	April 30, 2013		
Rate Rider for Deferral/Variance Account Disposition (2011)	\$/kWh	0.00110	April 30, 2013		
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Recovery (2012)	\$/kWh			0.00030	April 30, 2013
Rate Rider for Tax Change (2012)	\$/kWh			-0.00010	April 30, 2013
Rate Rider for Incremental Capital (2012)	\$/kWh			0.00040	April 30, 2015
General Service Less Than 50 kW	0.0.14	0.00000			
Low Voltage Service Rate	\$/kWh	0.00060	1 100 0010		
Rate Rider for Global Adjustment Sub-Account (2011) – Applicable only for Non-RPP Customers	\$/kWh \$/kWh	0.00130 0.00040	April 30, 2013 April 30, 2013		
Rate Rider for Deferral/Variance Account Disposition (2011)	\$/kWh	0.00040	April 30, 2013	0.00030	April 30, 2013
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Recovery (2012) Rate Rider for Tax Change (2012)	\$/kWh			-0.00010	April 30, 2013
Rate Rider for Incremental Capital (2012)	\$/kWh			0.00010	April 30, 2015
Rate Rider for incremental Capital (2012)	<b>Φ/Κ</b> ΨΤΙ			0.00020	April 30, 2015
General Service 50 to 4,999 kW					
Low Voltage Service Rate	\$/kW	0.25200			
Rate Rider for Global Adjustment Sub-Account (2011) – Applicable only for Non-RPP Customers	\$/kW	0.49460	April 30, 2013		
Rate Rider for Deferral/Variance Account Disposition (2011)	\$/kW	-0.00210	April 30, 2013		
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Recovery (2012)	\$/kW			0.12100	April 30, 2013
Rate Rider for Tax Change (2012)	\$/kW			-0.01060	April 30, 2013
Rate Rider for Incremental Capital (2012)	\$/kW			0.04580	April 30, 2015

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 24 of 42

April 30, 2013 April 30, 2013 April 30, 2015

April 30, 2013 April 30, 2013 April 30, 2015

April 30, 2013 April 30, 2015

Large Use				
Low Voltage Service Rate	\$/kW	0.30360		
Rate Rider for Global Adjustment Sub-Account (2011) – Applicable only for Non-RPP Customers	\$/kW	0.68270	April 30, 2013	
Rate Rider for Deferral/Variance Account Disposition (2011)	\$/kW	-0.03700	April 30, 2013	
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Recovery (2012)	\$/kW	0.00700	7.011.00, 2010	0.00090
Rate Rider for Tax Change (2012)	\$/kW			-0.00490
Rate Rider for Incremental Capital (2012)	\$/kW			0.02400
Unmetered Scattered Load				
Low Voltage Service Rate	\$/kWh	0.00070		
Rate Rider for Global Adjustment Sub-Account (2011) – Applicable only for Non-RPP Customers	\$/kWh	0.00130	April 30, 2013	
Rate Rider for Deferral/Variance Account Disposition (2011)	\$/kWh	0.00070	April 30, 2013	
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Recovery (2012)	\$/kWh			0.00010
Rate Rider for Tax Change (2012)	\$/kWh			-0.00010
Rate Rider for Incremental Capital (2012)	\$/kWh			0.00030
Street Lighting				
Low Voltage Service Rate	\$/kW	0.18200		
Rate Rider for Global Adjustment Sub-Account (2011) – Applicable only for Non-RPP Customers	\$/kW	0.47470	April 30, 2013	
Rate Rider for Deferral/Variance Account Disposition (2011)	\$/kW	0.05390	April 30, 2013	
Rate Rider for Tax Change (2012)	\$/kW			-0.02980
Rate Rider for Incremental Capital (2012)	\$/kW			0.10660
Standby Power - APPROVED ON AN INTERIM BASIS		_		

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 25 of 42



Current RTSR-Network Rates are listed below. In column "K", please enter your proposed RTSR-Network Rates as per Sheet 13 of the Board's RTSi Workform.

Rate Description	Unit	Current Amount	% Adjustment	Proposed Amount
Residential				
Retail Transmission Rate – Network Service Rate	\$/kWh	0.00570	3.509%	0.00590
General Service Less Than 50 kW Retail Transmission Rate – Network Service Rate	\$/kWh	0.00520	3.846%	0.00540
	\$/KWII	0.00520	5.840 %	0.00540
General Service 50 to 4,999 kW				
Retail Transmission Rate – Network Service Rate	\$/kW	2.27970	3.720%	2.36450
Large Use				
Retail Transmission Rate – Network Service Rate	\$/kW	2.74680	3.721%	2.84900
Unmetered Scattered Load				
Retail Transmission Rate – Network Service Rate	\$/kWh	0.00570	3.509%	0.00590
Street Lighting				
Retail Transmission Rate – Network Service Rate	\$/kW	1.64670	3.723%	1.70800
Standby Power - APPROVED ON AN INTERIM BASIS				

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 26 of 42



Current RTSR-Connection Rates are listed below. In column "K", please enter your proposed RTSR-Connection Rates as per Sheet 13 of the Board's RTSR Workform.

Rate Description	Unit	Current Amount	% Adjustment	Proposed Amount
Residential				
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.00500	0.000%	0.00500
General Service Less Than 50 kW				
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.00460	0.000%	0.00460
General Service 50 to 4,999 kW				
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.98130	0.252%	1.98630
Large Use Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	2.38740	0.251%	2,39340
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/KVV	2.30740	0.251%	2.39340
Unmetered Scattered Load				
Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kWh	0.00500	0.000%	0.00500
Street Lighting Retail Transmission Rate – Line and Transformation Connection Service Rate	\$/kW	1.43110	0.252%	1.43470
	Ψ/ΚΨ	1.45110	0.23278	1.43470
Standby Power - APPROVED ON AN INTERIM BASIS		I		

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 27 of 42



If applicable, please enter any adjustments related to the revenue to cost ratio model into columns H and K. The Price Escalator has been set at the 2011 values and will be updated by Board staff. The Stretch Factor Value will also b e updated by Board staff.

0.72%

Productivity Factor

Ш

Price Escalator 1.30% Choose Stretch Factor Group

Price Cap Index Associated Stretch Factor Value 0.4%

Rate Description	Unit	Current MFC	MFC Adjustment from R/C Model	Current Volumetric Charge	Unit	DVR Adjustment from R/C Model	Price Cap Index	Proposed MFC	Proposed Volumetric Charge
Residential									
General Service Less Than 50 kW	\$	12.06		0.01480	\$/kWh		0.180%	12.08	0.01483
	\$	24.83		0.01030	\$/kWh		0.180%	24.87	0.01032
General Service 50 to 4,999 kW	\$	269.01		1.92700	\$/kW		0.180%	269.49	1.93047
Large Use									
Unmetered Scattered Load	\$	4,959.68		1.01180	\$/kW		0.180%	4,968.61	1.01362
	\$	11.09		0.01350	\$/kWh		0.180%	11.11	0.01352
Street Lighting	\$	0.99		4.49010	\$/kW		0.180%	0.99	4.49818
Standby Power - APPROVED ON AN INTERIM BASIS		0.00			<b>W</b> , 194		00070	0.00	
	\$						0.180%		

0.18%

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 28 of 42



Please enter the descriptions of the current Loss Factors from your most recent Board-Approved Tariff of Rates and Charges by using the dropdown menu in the column labeled "Loss Factors". If the description is not found in the drop-down menu, please enter the description in the green cells under the correct classes.

Loss Factors	Current
Total Loss Factor – Secondary Metered Customer < 5,000 kW	1.0344
Total Loss Factor – Secondary Metered Customer > 5,000 kW	1.0180
Total Loss Factor – Primary Metered Customer < 5,000 kW	1.0241
Total Loss Factor – Primary Metered Customer > 5,000 kW	1.0078

Are you anniving

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 29 of 42



Kingston Hydro Corporation - EB-2011-0178

The standard Allowance rates have been included as default entries. If you have different rates, please make the appropriate corrections in the below. As well, please enter the current Specific Service Charges below. The standard Retail Service Charges have been entered below. If you rates, please make the appropriate corrections in columns B, D or E as applicable (cells are unlocked).



#### SPECIFIC SERVICE CHARGES

#### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule

No charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

**Customer Administration** 

Arrears certificate
Statement of account
Request for other billing information
Account history
Returned cheque charge (plus bank charges)
Legal letter charge
Account set up charge/change of occupancy charge (plus credit agency costs if applicable)
Special meter reads
Meter dispute charge plus Measurement Canada fees (if meter found correct)

\$ 15.00
\$ 15.00
\$ 30.00
\$ 30.00

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 30 of 42

Non-Payment of Account

Late Payment - per month	%	1.50
Late Payment - per annum	%	19.56
Disconnect/Reconnect at meter - during regular hours	\$	65.00
Disconnect/Reconnect at meter - after regular hours	\$	185.00
Disconnect/Reconnect at pole - during regular hours	\$	185.00
Disconnect/Reconnect at pole - after regular hours	\$	415.00

### Other

Install/Remove load control device - during regular hours Install/Remove load control device - after regular hours Specific Charge for Access to the Power Poles \$/pole/year Layout fees

\$ 415.00

\$ 65.00
\$ 185.00
\$ 22.35
\$ 200.00

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 31 of 42

### **RETAIL SERVICE CHARGES (if applicable)**

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule, unless required by the Distributor's Licence or a Code or Order of the Board, and amendments thereto as approved by the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, be it under the Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustment, the Ontario Clean Energy Benefit and the HST.

Retail Service Charges refer to services provided by a distributor to retailers or customers related to the supply of competitive electricity

One-time charge, per retailer, to establish the service agreement between the distributor and the retailer Monthly Fixed Charge, per retailer	\$ \$	100.00 20.00
Monthly Variable Charge, per customer, per retailer	\$/cust.	0.50
Distributor-consolidated billing charge, per customer, per retailer	\$/cust.	0.30
Retailer-consolidated billing credit, per customer, per retailer	\$/cust.	(0.30)
Service Transaction Requests (STR)		
Request fee, per request, applied to the requesting party	\$	0.25
Processing fee, per request, applied to the requesting party	\$	0.50
Request for customer information as outlined in Section 10.6.3 and Chapter 11 of the Retail		
Settlement Code directly to retailers and customers, if not delivered electronically through the		
Electronic Business Transaction (EBT) system, applied to the requesting party		
Up to twice a year	\$	no charge
More than twice a year, per request (plus incremental delivery costs)	\$	2.00

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 32 of 42

## Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2012 Implementation Date May 1, 2012

This schedule supersedes and replaces all previously approved schedules of Rates,

EB-2011-0178

0.005

## **RESIDENTIAL SERVICE CLASSIFICATION**

APPLICATION

MONTHLY RATES AND CHARGES - Delivery Component		
, ,	¢	10.00
Service Charge	\$	12.08
Rate Rider for Incremental Capital (2012) - Effective Until April 3		0.29
Distribution Volumetric Rate	\$/kWh	0.0148
Low Voltage Service Rate - Effective Until	\$/kWh	0.0007
Rate Rider for Global Adjustment Sub-Account (2011) - Applicat	\$/kWh	0.0013
Rate Rider for Deferral/Variance Account Disposition (2011) - Eff	\$/kWh	0.0011
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Re	\$/kWh	0.0003
Rate Rider for Tax Change (2012) - Effective Until April 30, 2013		-0.0001
Rate Rider for Incremental Capital (2012) - Effective Until April 3	\$/kWh	0.0004
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0059

### **MONTHLY RATES AND CHARGES – Regulatory Component**

Retail Transmission Rate - Line and Transformation Connection \$/kWh

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 33 of 42

## Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2012 Implementation Date May 1, 2012

This schedule supersedes and replaces all previously approved schedules of Rates,

EB-2011-0178

## **GENERAL SERVICE LESS THAN 50 KW SERVICE**

APPLICATION



Service Charge	\$	24.87
Rate Rider for Incremental Capital (2012) - Effective Until April 3	\$	0.59
Distribution Volumetric Rate	\$/kWh	0.0103
Low Voltage Service Rate - Effective Until	\$/kWh	0.0006
Rate Rider for Global Adjustment Sub-Account (2011) - Applicat	\$/kWh	0.0013
Rate Rider for Deferral/Variance Account Disposition (2011) - Eff	\$/kWh	0.0004
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Re	\$/kWh	0.0003
Rate Rider for Tax Change (2012) - Effective Until April 30, 2013	\$/kWh	-0.0001
Rate Rider for Incremental Capital (2012) - Effective Until April 3	\$/kWh	0.0002
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0054
Retail Transmission Rate – Line and Transformation Connection	\$/kWh	0.0046

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 34 of 42

## Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2012 Implementation Date May 1, 2012

This schedule supersedes and replaces all previously approved schedules of Rates,

EB-2011-0178

## **GENERAL SERVICE 50 TO 4,999 KW SERVICE**

APPLICATION



Service Charge	\$	269.49
Rate Rider for Incremental Capital (2012) - Effective Until April 3	\$	6.39
Distribution Volumetric Rate	\$/kW	1.9305
Low Voltage Service Rate - Effective Until	\$/kW	0.252
Rate Rider for Global Adjustment Sub-Account (2011) - Applicat	\$/kW	0.4946
Rate Rider for Deferral/Variance Account Disposition (2011) - Eff	\$/kW	-0.0021
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Re	\$/kW	0.121
Rate Rider for Tax Change (2012) - Effective Until April 30, 2013	\$/kW	-0.0106
Rate Rider for Incremental Capital (2012) - Effective Until April 3	\$/kW	0.0458
Retail Transmission Rate – Network Service Rate	\$/kW	2.3645
Retail Transmission Rate – Line and Transformation Connection	\$/kW	1.9863

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 35 of 42

## Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2012 Implementation Date May 1, 2012

This schedule supersedes and replaces all previously approved schedules of Rates,

EB-2011-0178

# LARGE USE SERVICE CLASSIFICATION

APPLICATION



Service Charge	\$	4968.61
Rate Rider for Incremental Capital (2012) - Effective Until Ap	oril 3(\$	117.75
Distribution Volumetric Rate	\$/kW	1.0136
Low Voltage Service Rate - Effective Until	\$/kW	0.3036
Rate Rider for Global Adjustment Sub-Account (2011) - App	licat \$/kW	0.6827
Rate Rider for Deferral/Variance Account Disposition (2011)	- Eff \$/kW	-0.037
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM	) Re \$/kW	0.0009
Rate Rider for Tax Change (2012) - Effective Until April 30, 2	2013 \$/kW	-0.0049
Rate Rider for Incremental Capital (2012) - Effective Until Ap	oril 3(\$/kW	0.024
Retail Transmission Rate – Network Service Rate	\$/kW	2.849
Retail Transmission Rate – Line and Transformation Connect	tion \$/kW	2.3934

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 36 of 42

## Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2012 Implementation Date May 1, 2012

This schedule supersedes and replaces all previously approved schedules of Rates,

EB-2011-0178

## UNMETERED SCATTERED LOAD SERVICE

APPLICATION



monther nated and on anois beinery component		
Service Charge	\$	11.11
Rate Rider for Incremental Capital (2012) - Effective Until April 3	\$	0.26
Distribution Volumetric Rate	\$/kWh	0.0135
Low Voltage Service Rate - Effective Until	\$/kWh	0.0007
Rate Rider for Global Adjustment Sub-Account (2011) – Applicat	\$/kWh	0.0013
Rate Rider for Deferral/Variance Account Disposition (2011) - Eff	\$/kWh	0.0007
Rate Rider for Lost Revenue Adjustment Mechanism (LRAM) Re	\$/kWh	0.0001
Rate Rider for Tax Change (2012) - Effective Until April 30, 2013	\$/kWh	-0.0001
Rate Rider for Incremental Capital (2012) - Effective Until April 3	\$/kWh	0.0003
Retail Transmission Rate – Network Service Rate	\$/kWh	0.0059
Retail Transmission Rate – Line and Transformation Connection	\$/kWh	0.005

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 37 of 42

## Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2012 Implementation Date May 1, 2012

This schedule supersedes and replaces all previously approved schedules of Rates,

EB-2011-0178

## STREET LIGHTING SERVICE CLASSIFICATION

APPLICATION

MONTHLY RATES AND CHARGES - Delivery Component		
Service Charge	\$	0.99
Rate Rider for Incremental Capital (2012) - Effective Until April 30	\$	0.02
Distribution Volumetric Rate	\$/kW	4.4982
Low Voltage Service Rate - Effective Until	\$/kW	0.182
Rate Rider for Global Adjustment Sub-Account (2011) – Applicat S	\$/kW	0.4747
Rate Rider for Deferral/Variance Account Disposition (2011) - Eff	\$/kW	0.0539
Rate Rider for Tax Change (2012) - Effective Until April 30, 2013	\$/kW	-0.0298
Rate Rider for Incremental Capital (2012) - Effective Until April 30	\$/kW	0.1066
Retail Transmission Rate – Network Service Rate	\$/kW	1.708
Retail Transmission Rate – Line and Transformation Connection S	\$/kW	1.4347

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 38 of 42

## Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2012 Implementation Date May 1, 2012

This schedule supersedes and replaces all previously approved schedules of Rates,

EB-2011-0178

# **STANDBY POWER - APPROVED ON AN INTERIM BASIS**

APPLICATION

MONTHLY RATES AND CHARGES - Delivery Component Distribution Volumetric Rate	#VALUE!
MONTHLY RATES AND CHARGES – Regulatory Component	

Wholesale Market Service Rate	\$/kWh	0.0052
Rural Rate Protection Charge	\$/kWh	0.0013
Standard Supply Service – Administrative Charge (if applicable)	\$	0.25

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 39 of 42

## Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2012 Implementation Date May 1, 2012

This schedule supersedes and replaces all previously approved schedules of Rates,

EB-2011-0178

### microFIT GENERATOR SERVICE CLASSIFICATION

This classification applies to an electricity generation facility contracted under the Ontario Power Authority's micoFIT program and connected to the distribuor's distribution system. Further servicing details are available in the distributor's Condition of Service.

### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the Distributor and any Code or Order of the Board, and amendments thereto as approved by the Board, which may be applicable to the administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any work or service done or furnished for the purpose of the distribution of electricity shall be made except as permitted by this schedule unless required by the Distributor's Licence

Unless specifically noted, this schedule does not contain any charges for the electricity commodity, beit under the Regulated Price Plan, a contract with a retailer or the

It should be noted that this schedule does not list any charges, assessments, or credits that are required by law to be invoiced by a distributor and that are not subject to Board approval, such as the Debt Retirement Charge, charges for the Ministry of Energy

#### **MONTHLY RATES AND CHARGES - Delivery Component**

Service Charge

\$

5.25

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 40 of 42

## Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2012 Implementation Date May 1, 2012

This schedule supersedes and replaces all previously approved schedules of Rates,

	EB-2011-0178
ALLOWANCES	
Transformer Allowance for Ownership - per kW of billing demanc \$/kW	(0.60)
Primary Metering Allowance for transformer losses – applied to n %	(1.00)

## SPECIFIC SERVICE CHARGES

### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the C Order of the Board, and amendments thereto as approved by the Board, which may be app administration of this schedule

No charges to meet the costs of any work or service done or furnished for the purpose of the shall be made except as permitted by this schedule, unless required by the Distributor's Lic of the Board, and amendments thereto as approved by the Board, or as specified herein.

It should be noted that this schedule does not list any charges, assessments, or credits tha invoiced by a distributor and that are not subject to Board approval, such as the Debt Retire the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustme Energy Benefit and the HST.

### **Customer Administration**

Arrears certificate	\$	15.00
Statement of account	\$	15.00
Request for other billing information	\$	15.00
Account history	\$	15.00
Returned cheque charge (plus bank charges)	\$	15.00
Legal letter charge	\$	15.00
Account set up charge/change of occupancy charge (plus c	\$	15.00
Special meter reads	\$	30.00
Neter dispute charge plus Measurement Canada fees (if me	\$	30.00
Non-Payment of Account		
Late Payment - per month	%	1.50
Late Payment - per annum	%	19.56
Disconnect/Reconnect at meter - during regular hours	\$	65.00
Disconnect/Reconnect at meter - after regular hours	\$	185.00
Disconnect/Reconnect at pole - during regular hours	\$	185.00
Disconnect/Reconnect at pole - after regular hours	\$	415.00
Install/Remove load control device - during regular hours	\$	65.00
Install/Remove load control device - after regular hours	\$	185.00
Specific Charge for Access to the Power Poles \$/pole/year	\$	22.35

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 41 of 42

## Kingston Hydro Corporation TARIFF OF RATES AND CHARGES Effective Date May 1, 2012 Implementation Date May 1, 2012

### This schedule supersedes and replaces all previously approved schedules of Rates, **RETAIL SERVICE CHARGES (if applicable)**

### APPLICATION

The application of these rates and charges shall be in accordance with the Licence of the E Order of the Board, and amendments thereto as approved by the Board, which may be app administration of this schedule.

No rates and charges for the distribution of electricity and charges to meet the costs of any furnished for the purpose of the distribution of electricity shall be made except as permitted required by the Distributor's Licence or a Code or Order of the Board, and amendments the Board, or as specified herein.

Unless specifically noted, this schedule does not contain any charges for the electricity con Regulated Price Plan, a contract with a retailer or the wholesale market price, as applicable

It should be noted that this schedule does not list any charges, assessments, or credits tha invoiced by a distributor and that are not subject to Board approval, such as the Debt Retire the Ministry of Energy Conservation and Renewable Energy Program, the Global Adjustme Energy Benefit and the HST.

Retail Service Charges refer to services provided by a distributor to retailers or customers r to the supply of competitive electricity

One-time charge, per retailer, to establish the service agree	\$	100.00
Monthly Fixed Charge, per retailer	\$	20.00
Monthly Variable Charge, per customer, per retailer	\$/cust.	0.50
Distributor-consolidated billing charge, per customer, per ret	\$/cust.	0.30
Retailer-consolidated billing credit, per customer, per retaile	\$/cust.	(0.30)
Service Transaction Requests (STR)		
Request fee, per request, applied to the requesting part	\$	0.25
Processing fee, per request, applied to the requesting p	\$	0.50
Request for customer information as outlined in Section 10.6.	3 and Chap	oter 11 of the I
Settlement Code directly to retailers and customers, if not del	ivered elec	tronically throu
Electronic Business Transaction (EBT) system, applied to the	requesting	j party
Up to twice a year	\$	no charg
More than twice a year, per request (plus incremental d	\$	2.00

#### LOSS FACTORS

If the distributor is not capable of prorating changed loss factors jointly with distribution rate will be implemented upon the first subsequent billing for each billing cycle.

Total Loss Factor – Secondary Metered Customer < 5,000 kW	1.0344
Total Loss Factor – Secondary Metered Customer > 5,000 kW	1.0180
Total Loss Factor – Primary Metered Customer < 5,000 kW	1.0241
Total Loss Factor – Primary Metered Customer > 5,000 kW	1.0078

Kingston Hydro Corporation Filed: 30 September 2011 EB-2011-0178 Exhibit 2 Page 42 of 42



### **Rate Class**

### General Service 50 to 4,999 kW

Monthly Rates and Charges	Current Rate	Applied For Rate
Service Charge	269.01	269.49
Smart Meter Funding Adder	1.00	-
Service Charge Rate Rider(s)	6.78	6.39
Distribution Volumetric Rate	1.92700	1.93047
Distribution Volumetric Rate Rider(s)	(0.39220)	0.15620
Low Voltage Volumetric Rate	0.25200	0.25200
Retail Transmission Rate – Network Service Rate	2.27970	2.36450
Retail Transmission Rate – Line and Transformation Connection Service Rate	1.98130	1.98630
Wholesale Market Service Rate	0.0052	0.0052
Rural Rate Protection Charge	0.0013	0.0013
Standard Supply Service – Administration Charge (if applicable)	0.25	0.25
Debt Retirement Charge (DRC)	0.0070	0.0070
Loss Factor	1.0241	1.0241

Consumption	1,095,000 kWh kWh		2,500 kW			Current Loss Fac	tor	1.0241		
			Load Factor	<u>60.0%</u>		Proposed Loss F	actor	1.0241	]	
General Service 50 to 4,999 kW	Volume	Current Rate (\$)	Current Charge (\$)	Volume	Proposed Rate (\$)	Proposed Charge (\$)	Change (\$)	Change (%)	% of Total Bill	
Energy First Tier (kWh)	1,121,389.50	0.0680	76,254.49	1,121,390	0.0680	76,254.49	0.00	0.00%	24438.06%	
Energy Second Tier (kWh)			0.00			0.00	0.00	0.00%	0.00%	
Sub-Total: Energy			76,254.49			76,254.49	0.00	0.00%	24438.06%	
Service Charge	1	269.01	269.01	1	269.49	269.49	0.48	0.18%	86.37%	
Service Charge Rate Rider(s)	1	7.78	7.78	1	6.39	6.39	-1.39	(17.87)%	2.05%	
Distribution Volumetric Rate	2,500	1.9270	4,817.50	2,500	1.9305	4,826.17	8.67	0.18%	1546.69%	
Low Voltage Volumetric Rate	2,500	0.2520	630.00	2,500	0.2520	630.00	0.00	0.00%	201.90%	
Distribution Volumetric Rate Rider(s)	2,500	(0.3922)	(980.50)	2,500	0.1562	390.50	1,371.00	(139.83)%	125.15%	
Total: Distribution			4,743.79			6,122.56	1,378.77	29.06%	1962.16%	
Retail Transmission Rate – Network Service Rate	2,560.25	2.2797	5,836.60	2,560.25	2.3645	6,053.71	217.11	3.72%	1940.10%	
Retail Transmission Rate – Line and Transformation Connection Service Rate	2,560.25	1.9813	5,072.62	2,560.25	1.9863	5,085.42	12.80	0.25%	1629.78%	
Total: Retail Transmission			10,909.23			11,139.14	229.91	2.11%	3569.87%	
Sub-Total: Delivery (Distribution and Retail Transmission)			15,653.02			17,261.69	1,608.68	10.28%	5532.03%	
Wholesale Market Service Rate	1,121,389.50	0.0052	5,831.23	1,121,389.50	0.0052	5,831.23	0.00	0.00%	1868.79%	
Rural Rate Protection Charge	1,121,389.50	0.0013	1,457.81	1,121,389.50	0.0013	1,457.81	0.00	0.00%	467.20%	
Standard Supply Service – Administration Charge (if applicable)	1	0.25	0.25	1	0.25	0.25	0.00	0.00%	0.08%	
Sub-Total: Regulatory			7,289.28			7,289.28			2336.07%	
Debt Retirement Charge (DRC)	1,095,000.00	0.00700	7,665.00	1,095,000	0.0070	7,665.00	0.00	0.00%	2456.48%	
Total Bill before Taxes			106,861.78			108,470.46	1,608.68	1.51%	34762.64%	
HST		13%	13,892.03		13%	14,101.16	209.13	1.51%	4519.14%	
Total Bill			120,753.81			122,571.62	1,817.80	1.51%	39281.79%	
Ontario Clean Energy Benefit (OCEB)		(10%)	-12,075.38		(10%)	-12,257.16				
Total Bill (less OCEB)			108,678.43			110,314.46	1,636.02	1.51%		

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 3 Page 1 of 6



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Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 3 Page 2 of 6



Ontario Energy Board 2012 IRM 3 Tax Savings Workform

Algoma Power Inc.

### <u>1. Info</u>

- 2. Table of Contents
- 3. Re-Based Billing Determinants and Rates
- 4. Re-Based Revenue from Rates
- 5. Z-Factor Tax Changes
- 6. Calculation of Tax Change Variable Rate Rider

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 3 Page 3 of 6



Ontario Energy Board 2012 IRM 3 Tax Savings Workform

Algoma Power Inc.

Enter your 2011 Base Monthly Fixed Charge and Distribution Volumetric Charge into columns labeled "Rate ReBal Base Service Charge" and "Rate ReBal Base Distribution Volumetric Rate kWh/kW" respectively.

#### Last COS Re-based Year was in 2011

Rate Group	Rate Class	Fixed Metric	Vol Metric	Re-based Billed Customers or Connections A	Re-based Billed kWh B		Rate ReBal Base Service Charge D	Rate ReBal Base Distribution Volumetric Rate kWh E	Base Distribution
RES	Residential	Customer	kWh	23,386	194,606,362		12.06	0.0148	
GSLT50	General Service Less Than 50 kW	Customer	kWh	3,244	93,096,784		24.83	0.0103	
GSGT50	General Service 50 to 4,999 kW	Customer	kW	347	259,610,762	701,859	269.01		1.9270
LU	Large Use	Customer	kW	3	152,017,673	297,737	4,959.68		1.0118
USL	Unmetered Scattered Load	Customer	kWh	164	2,275,040		11.09	0.0135	
SL	Street Lighting	Connection	kW	5,155	4,024,186	11,336	0.99		4.4901
SB	Standby Power - APPROVED ON AN INTERIM BASIS	Connection	kW						
NA	Rate Class 8	NA	NA						
NA	Rate Class 9	NA	NA						
NA	Rate Class 10	NA	NA						
NA	Rate Class 11	NA	NA						
NA	Rate Class 12	NA	NA						
NA	Rate Class 13	NA	NA						
NA	Rate Class 14	NA	NA						
NA	Rate Class 15	NA	NA						
NA	Rate Class 16	NA	NA						
NA	Rate Class 17	NA	NA						
NA	Rate Class 18	NA	NA						
NA	Rate Class 19	NA	NA						
NA	Rate Class 20	NA	NA						
NA	Rate Class 21	NA	NA						
NA	Rate Class 22	NA	NA						
NA	Rate Class 23	NA	NA						
NA	Rate Class 24	NA	NA						
NA	Rate Class 25	NA	NA						

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 3 Page 4 of 6



Ontario Energy Board 2012 IRM 3 Tax Savings Workform

Algoma Power Inc.

Calculating Re-Based Revenue from Rates. No input required.

### Last COS Re-based Year was in 2011

Rate Class	Re-based Billed Customers or Connectio ns A	Re-based Billed kWh B		Rate ReBal Base Service Charge D	Base Distributio n	Rate ReBal Base Distributio n Volumetric Rate kW F	Service Charge Revenue G = A * D *12	n Volumetric Rate Revenue kWh	Distributio n Volumetric Rate Revenue kW I = C * F	Revenue Requireme nt from Rates I
Residential	23,386	194,606,362	0	12.06	0.0148	0.0000	3,384,422	2,880,174	0	6,264,596
General Service Less Than 50 kW	3,244	93,096,784	0	24.83	0.0103	0.0000	966,582	958,897	0	1,925,479
General Service 50 to 4,999 kW	347	259,610,762	701,859	269.01	0.0000	1.9270	1,120,158	0	1,352,482	2,472,640
Large Use	3	152,017,673	297,737	4,959.68	0.0000	1.0118	178,548	0	301,250	479,799
Unmetered Scattered Load	164	2,275,040	0	11.09	0.0135	0.0000	21,825	30,713	0	52,538
Street Lighting	5,155	4,024,186	11,336	0.99	0.0000	4.4901	61,241	0	50,900	112,141
Standby Power - APPROVED ON AN IN	TI O	0	0	0.00	0.0000	0.0000	0	0	0	0
							5,732,777	3,869,784	1,704,632	11,307,193



### Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 3 Page 5 of 6

Algoma Power Inc.

#### This worksheet calculates the tax sharing amount.

Step 1: Press the <u>Update Button</u> (this will clear all input cells and reveal your latest cost of service re-basing year).

### Summary - Sharing of Tax Change Forecast Amounts

### For the 2011 year, enter any Tax Credits from the Cost of Service Tax Calculation (Positive #)

1. Tax Related Amounts Forecast from Capital Tax Rate Changes	2011	2012	
Taxable Capital	\$ -	\$	-
Deduction from taxable capital up to \$15,000,000	\$ -	\$	-
Net Taxable Capital	\$ -	\$	-
Rate	0.000%		0.000%
Ontario Capital Tax (Deductible, not grossed-up)	\$ -	\$	-
2. Tax Related Amounts Forecast from Income Tax Rate Changes	2011		2012
Regulatory Taxable Income	\$ 1,544,582	\$	1,544,582
Corporate Tax Rate	25.90%		24.06%
Tax Impact	\$ 400,095	\$	371,687
Grossed-up Tax Amount	\$ 557,623	\$	489,474
Tax Related Amounts Forecast from Capital Tax Rate Changes	\$ -	\$	-
Tax Related Amounts Forecast from Income Tax Rate Changes	\$ 557,623	\$	489,474
Total Tax Related Amounts	\$ 557,623	\$	489,474
Incremental Tax Savings		-\$	68,149
Sharing of Tax Savings (50%)		-\$	34,075

\$

-

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 3 Page 6 of 6



Algoma Power Inc.

This worksheet calculates a tax change volumetric rate rider. No input required. The outputs in column Q and S are to be entered into Sheet 17 of the 2012 IRM Rate Generator Model.

Rate Class	Total Revenue \$ by Rate Class A	Total Revenue % by Rate Class B = A / \$H	Total Z-Factor Tax Change\$ by Rate Class C = \$I * B	Billed kWh D	Billed kW E	Distribution Volumetric Rate kWh Rate Rider F = C / D	Distribution Volumetric Rate kW Rate Rider G = C / E
Residential	\$6,264,596.0776	55.40%	-\$18,879	#########	0	-\$0.0001	
General Service Less Than 50 kW	\$1,925,479	17.03%	-\$5,802	93,096,784	0	-\$0.0001	
General Service 50 to 4,999 kW	\$2,472,640	21.87%	-\$7,451	##########	701,859		-\$0.0106
Large Use	\$479,799	4.24%	-\$1,446	##########	297,737		-\$0.0049
Unmetered Scattered Load	\$52,538	0.46%	-\$158	2,275,040	0	-\$0.0001	
Street Lighting	\$112,141	0.99%	-\$338	4,024,186	11,336		-\$0.0298
Standby Power - APPROVED ON AN INTERIM B	A \$0	0.00%	\$0	0	0		
	\$11,307,193	100.00%	-\$34,075				
	Н		-				
			I				

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 4 Page 1 of 13

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### **Application Contact Information**

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Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 4 Page 2 of 13



Ontario Energy Board RTSR WORK FORM FOR ELECTRICITY DISTRIBUTORS

Kingston Hydro Corporation - EB-2011-0178 - IRM3

<u>1. Info</u>

2. Table of Contents

3. Rate Classes

4. RRR Data

5. UTRs and Sub-Transmission

6. Historical Wholesale

7. Current Wholesale

8. Forecast Wholesale

9. Adj Network to Current WS

10. Adj Conn. to Current WS

11. Adj Network to Forecast WS

12. Adj Conn. to Forecast WS

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 4 Page 3 of 13



Montario Energy Board **RTSR WORK FORM** FOR ELECTRICITY DISTRIBUTORS

Kingston Hydro Corporation - EB-2011-0178 - IRM3

Select the appropriate rate classes that appear on your most recent Board-Approved Tariff of Rates and Charges.
 Enter the RTS Network and Connection Rate as it appears on the Tariff of Rates and Charges

Rate Class	Unit	RTSR -	Network	RTSR	R - Connection
Residential General Service Less Than 50 kW General Service 50 to 4,999 kW Large Use Unmetered Scattered Load Street Lighting Standby Power - APPROVED ON AN INTERIM BASIS Choose Rate Class Choose Rate Class	kWh kWh kW kWh kW	\$ \$ \$ \$ \$	0.0057 0.0052 2.2797 2.7468 0.0057 1.6467	\$ \$ \$ \$ \$ \$	0.0050 0.0046 1.9813 2.3874 0.0050 1.4311
Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 4 Page 4 of 13



Ontario Energy Board RTSR WORK FORM FOR ELECTRICITY DISTRIBUTORS

Kingston Hydro Corporation - EB-2011-0178 - IRM3

In the green shaded cells, enter the most recent reported RRR billing determinants. Please ensure that billing determinants are non-loss adjusted.

Rate Class	Unit	Non-Loss Adjusted Metered kWh	Non-Loss Adjusted Metered kW	Applicable Loss Factor	Load Factor	Loss Adjusted Billed kWh	Billed kW
Residential	kWh	189,807,088		1.0344		196,336,452	-
General Service Less Than 50 kW	kWh	92,291,447		1.0344		95,466,273	-
General Service 50 to 4,999 kW	kW	273,509,756	747,917		50.12%	273,509,756	747,917
Large Use	kW	148,872,806	289,659		70.44%	148,872,806	289,659
Unmetered Scattered Load	kWh	2,258,139		1.0344		2,335,819	-
Street Lighting	kW	4,402,842	12,188		49.51%	4,402,842	12,188
Standby Power - APPROVED ON AN INTERIM BASIS						-	-



Ontario Energy Board RTSR WORK FORM FOR ELECTRICITY DISTRIBUTORS Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 4 Page 5 of 13

Kingston Hydro Corporation - EB-2011-0178 - IRM3

RARA 1 – 2252 – which affects 1590

Hydro One Sub-Transmission Rate Rider 6A

Uniform Transmission Rates	Unit	Effe	ective	Eff	ective	Eff	ective
Rate Description		F	Rate	I	Rate	ŀ	Rate
Network Service Rate	kW	\$	2.97	\$	3.22	\$	3.22
Line Connection Service Rate	kW	\$	0.73	\$	0.79	\$	0.79
Transformation Connection Service Rate	kW	\$	1.71	\$	1.77	\$	1.77

Hydro One Sub-Transmission Rates	Unit	Ef	fective	Ef	fective	Ef	fective
Rate Description			Rate		Rate	I	Rate
Network Service Rate	kW	\$	2.65	\$	2.65	\$	2.65
Line Connection Service Rate	kW	\$	0.64	\$	0.64	\$	0.64
Transformation Connection Service Rate	kW	\$	1.50	\$	1.50	\$	1.50
Both Line and Transformation Connection Service Rate	kW	\$	2.14	\$	2.14	\$	2.14
Hydro One Sub-Transmission Rate Rider 6A	Unit	Ef	fective	Ef	fective	Ef	fective
Rate Description			Rate		Rate	1	Rate
RSVA Transmission network - 4714 - which affects 1584	kW	\$	0.0470	\$	0.0470	\$	0.0470
RSVA Transmission connection - 4716 - which affects 1586	kW	-\$	0.0250	-\$	0.0250	-\$	0.0250
RSVA LV - 4750 - which affects 1550	kW	\$	0.0580	\$	0.0580	\$	0.0580

kW

kW

-\$

\$

0.0750

0.0050

-\$

\$

0.0750

0.0050

-\$

\$

0.0750

0.0050



#### Ontario Energy Board RTSR WORK FORM FOR ELECTRICITY DISTRIBUTORS

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 4 Page 6 of 13

Kingston Hydro Corporation - EB-2011-0178 - IRM3

In the green shaded cells, enter billing detail for wholesale transmission for the same reporting period as the billing deter minants on Sheet "4. RRR Data". For Hydro One Sub-transmission Rates, if you are charged a *combined* Line and Transformer connection rate, please ensure that both the line connection and transformer connection columns are completed.

	her connection columns	s are completed	•						_					
IESO		Network			Line	Connecti	on		Transform	nation Co	onnectior	L	То	tal Line
Month	Units Billed	Rate		Amount	Units Billed	Rate	I	Amount	Units Billed	Rate	Amo	ınt	А	mount
January	73,423	\$2.97	\$	218,065	78,435	\$0.73	\$	57,258	78,435	\$1.71	\$ 13	4,124	\$	191,382
February	76,555	\$2.97	\$	227,368	76,555	\$0.73	\$	55,885	76,555	\$1.71		0,909	\$	186,794
March	59,880	\$2.97	\$	177,844	63,486	\$0.73	\$	46,345	63,486	\$1.71		8,561	\$	154,906
April	41,747	\$2.97	\$	123,989	61,497	\$0.73	\$	44,893	61,497	\$1.71		5,160	\$	150,053
May	71,340	\$2.97	\$	211,880	77,790	\$0.73	\$	56,787	77,790	\$1.71		3,021	\$	189,808
Iune	63,964	\$2.97	\$	189,973	75,252	\$0.73	\$	54,934	75,252	\$1.71		B,681	\$	183,615
July	50,224	\$2.97	э \$	149,165	55,253	\$0.73	\$	40,335	55,253	\$1.71		4,483	э \$	134,817
August	50,954	\$2.97	э \$	151,333	55,108	\$0.73	э \$	40,335	55,108	\$1.71		4,235	э \$	134,617
September	56,600	\$2.97	э \$	168,102	66,194	\$0.73	\$	40,229	66,194	\$1.71		4,233 3,192	э \$	161,513
October		\$2.97	э \$			\$0.73	\$			\$1.71		4,799	э \$	
November	42,439 79,254	\$2.97 \$2.97	э \$	126,044 235,384	43,742	\$0.73	\$ \$	31,932	43,742 93,240	\$1.71			ъ \$	106,730 227,506
December			φ \$		93,240		э \$	68,065				9,440	э \$	
December	55,185	\$2.97	¢	163,899	65,661	\$0.73	Ŷ	47,933	65,661	\$1.71	\$ II	2,280	¢	160,213
Total	721,565	\$ 2.97	7\$	2,143,046	812,213	\$ 0.73	\$	592,916	812,213	\$ 1.71	\$ 1,38	8,884	\$	1,981,800
HYDRO ONE		Network			Line	Connecti	on		Transform	nation Co	onnection	1	То	tal Line
Month	Units Billed	Rate		Amount	Units Billed	Rate	I	Amount	Units Billed	Rate	Amo	ınt	А	mount
January	49,491	\$2.65	\$	131,151	49,491	\$0.64	\$	31,674	49,491	\$1.50	\$ 7	4,237	\$	105,911
February	60,620	\$2.65	\$	160,643	60,620	\$0.64	\$	38,797	60,620	\$1.50		0,930	\$	129,727
March	68,604	\$2.65	\$	181,801	68,604	\$0.64	\$	43,907	68,604	\$1.50		2,906	\$	146,813
April	60,805	\$2.65	\$	161,136	60,805	\$0.64	\$	38,915	60,805	\$1.50		1,208	\$	130,123
May	30,147	\$2.65	\$	79,890	30,147	\$0.64	\$	19,294	30,147	\$1.50		5,221	\$	64,515
June	63,306	\$2.65	\$	167,761	63,306	\$0.64	\$	40,516	63,306	\$1.50		4,959	\$	135,475
July	71,741	\$2.65	\$	190,114	71,741	\$0.64	\$	45,914	71,741	\$1.50		7,612	\$	153,526
August	66,178	\$2.65	\$	175,372	66,178	\$0.64	\$	42,354	66,178	\$1.50		9,267	\$	141,621
September	58,168	\$2.65	\$	154,145	58,168	\$0.64	\$	37,228	58,168	\$1.50		7,252	\$	124,480
October	52,640	\$2.65	\$	139,496	52,640	\$0.64	\$	33,690	52,640	\$1.50		8,960	\$	112,650
November	77,783	\$2.65	\$	206,125	77,783	\$0.64	\$	49,781	77,783	\$1.50		6,675	\$	166,456
December	74,865	\$2.65	\$	198,392	74,865	\$0.64	\$	47,914	74,865	\$1.50		2,298	\$	160,212
Total	734,348	\$ 2.65	5\$	1,946,026	734,348	\$ 0.64	\$	469,984	734,348	\$ 1.50	\$ 1,10	1,525	\$	1,571,509
TOTAL		Network			Line	Connecti	on		Transform	nation Co	onnection	1	То	tal Line
Month	Units Billed	Rate		Amount	Units Billed	Rate	A	Amount	Units Billed	Rate	Amo	ınt	А	mount
January	122,914	\$2.84	¢	349,216	107 000	\$0.70	\$	88,932	127,926	\$1.63	¢	8,361	¢	297,293
· · ·		\$2.84 \$2.83	\$ \$	349,216 388,011	127,926	\$0.70 \$0.69	\$ \$		127,926 137,175	\$1.63 \$1.62		8,361 1,839	\$ ¢	
February	137,175				137,175			94,682					\$	316,521
March	128,484	\$2.80	\$	359,645	132,090	\$0.68	\$	90,252	132,090	\$1.60 \$1.61		1,467	\$	301,719
April	102,552	\$2.78	\$	285,125	122,302	\$0.69	\$	83,808	122,302	\$1.61 \$1.65		6,368	\$	280,176
May	101,487	\$2.87	\$	291,770	107,937	\$0.70	\$	76,081	107,937	\$1.65		8,242	\$	254,323
June	127,270	\$2.81	\$	357,734	138,558	\$0.69	\$	95,450	138,558	\$1.61		3,640	\$	319,090
July	121,965	\$2.78	\$	339,279	126,994	\$0.68	\$	86,249	126,994	\$1.59		2,095	\$	288,343
August	117,132	\$2.79	\$	326,705	121,286	\$0.68	\$	82,583	121,286	\$1.60		3,502	\$	276,085
September	114,768	\$2.81	\$	322,247	124,362	\$0.69	\$	85,550	124,362	\$1.61		0,444	\$	285,993
October	95,079	\$2.79	\$	265,540	96,382	\$0.68	\$	65,622	96,382	\$1.60		3,759	\$	219,380
November December	157,037 130,050	\$2.81 \$2.79	\$ \$	441,509 362,291	171,023 140,526	\$0.69 \$0.68	\$ \$	117,846 95,847	171,023 140,526	\$1.61 \$1.60		6,115 4,578	\$ \$	393,962 320,425
Total	1,455,913	\$ 2.81	1\$	4,089,072	1,546,561	\$ 0.69	\$	1,062,900	1,546,561	\$ 1.61	\$ 2,49	0,409	\$	3,553,309

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 4 Page 7 of 13



🚳 Ontario Energy Board RTSR WORK FORM **ELECTRICITY DISTRIBUTORS** 

FOR

Kingston Hydro Corporation - EB-2011-0178 - IRM3

The purpose of this sheet is to calculate the expected billing when current 2011 Uniform Transmission Rates are applied again st historical 2010 transmission units.

		_									_			_	_			
IESO		N	etwork			Line	Co	nnectio	n		Transform	nati	on Co	nne	ction	Total Line		
Month	Units Billed		Rate		Amount	Units Billed	]	Rate	Α	mount	Units Billed	]	Rate	4	Amount		Amount	
January	73,423	\$	3.2200		236,422	78,435			\$	61,964	78,435	\$	1.7700	\$	138,830	\$	200,794	
February	76,555	\$	3.2200	\$	246,507			0.7900	\$	60,478	76,555			\$	135,502	\$	195,981	
March	59,880	\$	3.2200		192,814	63,486	\$	0.7900	\$	50,154	63,486	\$	1.7700	\$	112,370	\$	162,524	
April	41,747	\$	3.2200	\$	134,425	61,497	\$	0.7900	\$	48,583	61,497	\$	1.7700	\$	108,850	\$	157,432	
May	71,340	\$	3.2200	\$	229,715	77,790	\$	0.7900	\$	61,454	77,790	\$	1.7700	\$	137,688	\$	199,142	
June	63,964	\$	3.2200	\$	205,964	75,252		0.7900	\$	59,449	75,252	\$	1.7700	\$	133,196	\$	192,645	
July		\$	3.2200	\$	161,721	55,253			\$	43,650	55,253			\$	97,798	\$	141,448	
August	50,954	\$	3.2200	\$	164,072	55,108	\$	0.7900	\$	43,535	55,108	\$	1.7700	\$	97,541	\$	141,076	
September	56,600	\$	3.2200	\$	182,252	66,194	\$	0.7900	\$	52,293	66,194	\$	1.7700	\$	117,163	\$	169,45	
October	42,439	\$	3.2200	\$	136,654	43,742	\$	0.7900	\$	34,556	43,742	\$	1.7700	\$	77,423	\$	111,980	
November	79,254	\$	3.2200	\$	255,198	93,240	\$	0.7900	\$	73,660	93,240	\$	1.7700	\$	165,035	\$	238,694	
December	55,185	\$	3.2200	\$	177,696	65,661	\$	0.7900	\$	51,872	65,661	\$	1.7700	\$	116,220	\$	168,092	
Total	721,565	\$	3.22	\$	2,323,439	812,213	\$	0.79	\$	641,648	812,213	\$	1.77	\$	1,437,617	\$	2,079,265	
HYDRO ONE		N	etwork			Line	Co	nnectio	n		Transform	nati	ion Co	nne	ection	т	otal Line	
Month	Units Billed		Rate		Amount	Units Billed	]	Rate	Α	mount	Units Billed	]	Rate	4	Amount		Amount	
January	49,491	\$	2.6970	\$	133,477	49,491	\$	0.6150	\$	30,437	49,491	\$	1.5000	\$	74,237	\$	104,673	
February		\$	2.6970	\$	163,492	60,620			\$	37,281	60,620			\$	90,930	\$	128,211	
March	68,604	\$	2.6970	\$	185,025	68,604		0.6150	s.	42,191	68,604		1.5000	\$	102,906	\$	145,097	
April	60,805	\$	2.6970	\$	163,991	60,805			\$	37,395	60,805			\$	91,208	\$	128,603	
May	30,147	\$	2.6970		81,306	30,147			s.	18,540	30,147			s	45,221	\$	63,761	
June	63,306	\$	2.6970	\$	170,736	63,306			\$	38,933	63,306			\$	94,959	\$	133,892	
July	71,741	\$	2.6970	\$	193,485	71,741			\$	44,121	71,741			\$	107,612	\$	151,732	
August	66,178	\$	2.6970	\$	178,482	66,178	\$	0.6150	\$	40,699	66,178	\$	1.5000	\$	99,267	\$	139,966	
September	58,168	\$	2.6970	\$	156,879	58,168			\$	35,773	58,168	\$	1.5000	\$	87,252	\$	123,025	
October	52,640	\$	2.6970	\$	141,970	52,640	\$	0.6150	\$	32,374	52,640	\$	1.5000	\$	78,960	\$	111,334	
November	77,783		2.6970	\$	209,781	77,783			\$	47,837	77,783			\$	116,675	\$	164,511	
December	74,865	\$	2.6970	\$	201,911			0.6150	\$	46,042	74,865	\$	1.5000	\$	112,298	\$	158,339	
Total	734,348	\$	2.70	\$	1,980,537	734,348	\$	0.62	\$	451,624	734,348	\$	1.50	\$	1,101,522	\$	1,553,146	
TOTAL		N	etwork			Line	Co	nnectio	n		Transform	nati	ion Co	nne	ection	т	otal Line	
Month	Units Billed		Rate		Amount	Units Billed	]	Rate	Α	mount	Units Billed	J	Rate	1	Amount		Amount	
January	122,914	\$	3.01	\$	369,899	127,926	\$	0.72	\$	92,401	127,926	\$	1.67	\$	213,066	\$	305,467	
February	137,175	\$	2.99	\$	409,999	137,175	\$	0.71	\$	97,760	137,175	\$	1.65	\$	226,432	\$	324,192	
March	128,484		2.94	\$	377,839	132,090			\$	92,345	132,090	\$	1.63	\$	215,276	\$	307,622	
April	102,552		2.91	\$	298,416	122,302		0.70		85,978	122,302		1.64		200,057	\$	286,035	
May	101,487	\$	3.06	\$	311,021	107,937			\$	79,995	107,937	\$	1.69	\$	182,909	\$	262,903	
June	127,270	\$	2.96	\$	376,700	138,558	\$		\$	98,382	138,558	\$	1.65	\$	228,155	\$	326,537	
July	121,965	\$	2.91		355,207	126,994			\$	87,771	126,994		1.62	\$	205,409	\$	293,180	
August	117,132		2.92		342,554		\$		\$	84,235	121,286	\$	1.62	\$	196,808	\$	281,043	
September	114,768	\$	2.95	\$	339,131	124,362			\$	88,067	124,362	\$	1.64	\$	204,415	\$	292,482	
October	95,079	\$	2.93	\$	278,624	96,382			\$	66,930		\$	1.62	\$	156,383	\$	223,31	
November	157,037	\$	2.96	\$	464,979	171,023			\$	121,496	171,023	\$	1.65	\$	281,709	\$	403,20	
								0.70		97,914		\$		\$	228,517		326,432	
December	130,050	\$	2.92	φ	379,607	140,526	Ф	0.70	φ	97,914	140,526	φ	1.05	φ	226,517	\$	520,452	

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 4 Page 8 of 13



Contario Energy Board RTSR WORK FORM FOR ELECTRICITY DISTRIBUTORS

Kingston Hydro Corporation - EB-2011-0178 - IRM3

The purpose of this sheet is to calculate the expected billing when forecasted 2012 Uniform Transmission Rates are applied against historical 2010 transmission units.

February       76,555       \$ 3,2200       \$ 246,507       76,555       \$ 0.7900       \$ 60,478       76,555       \$ 1.7700       \$ 135,502         March       59,880       \$ 3,2200       \$ 192,814       63,486       \$ 0.7900       \$ 50,154       63,486       \$ 1.7700       \$ 112,370         April       41,747       \$ 3,2200       \$ 122,814       61,497       \$ 0.7900       \$ 48,583       61,497       \$ 1.7700       \$ 112,370         May       71,340       \$ 3,2200       \$ 122,814       61,497       \$ 0.7900       \$ 48,583       61,497       \$ 1.7700       \$ 112,370         June       63,964       \$ 3,2200       \$ 205,964       75,252       \$ 0.7900       \$ 61,454       77,790       \$ 1.7700       \$ 133,196         July       50,224       \$ 3,2200       \$ 161,721       55,253       \$ 0.7900       \$ 43,650       55,253       \$ 1.7700       \$ 97,788         August       50,954       \$ 3,2200       \$ 161,721       55,253       \$ 0.7900       \$ 43,650       55,253       \$ 1.7700       \$ 97,784         September       56,660       \$ 3,2200       \$ 162,252       66,194       \$ 1.7700       \$ 117,163       \$ 77,423         October       42,439 <t< th=""><th>Total Line           Amount           \$ 200,794           \$ 195,981           \$ 162,524           \$ 157,432           \$ 199,142           \$ 192,645           \$ 141,448           \$ 141,448           \$ 169,457           \$ 168,092           \$ 203,694           \$ 20,79,266</th></t<>	Total Line           Amount           \$ 200,794           \$ 195,981           \$ 162,524           \$ 157,432           \$ 199,142           \$ 192,645           \$ 141,448           \$ 141,448           \$ 169,457           \$ 168,092           \$ 203,694           \$ 20,79,266
January       73,423       \$ 3,2200       \$ 236,422       78,435       \$ 0.7900       \$ 61,964       78,435       \$ 1.7700       \$ 138,830         February       76,555       \$ 3,2200       \$ 246,507       76,555       \$ 0.7900       \$ 60,478       76,555       \$ 1.7700       \$ 138,830         March       59,880       \$ 3,2200       \$ 192,814       63,486       \$ 0.7900       \$ 60,478       76,555       \$ 1.7700       \$ 112,370         April       41,747       \$ 3,2200       \$ 134,425       61,497       \$ 0.7900       \$ 61,454       77,790       \$ 1.7700       \$ 112,370         May       71,340       \$ 3,2200       \$ 229,715       77,790       \$ 0.7900       \$ 61,454       77,790       \$ 1.7700       \$ 137,688         June       63,964       \$ 3.2200       \$ 205,964       75,252       \$ 0.7900       \$ 43,650       55,253       \$ 1.7700       \$ 137,688         July       50,224       \$ 3.2200       \$ 164,072       55,108       \$ 0.7900       \$ 43,555       55,108       \$ 1.7700       \$ 97,581         August       50,954       \$ 3.2200       \$ 164,072       55,108       \$ 0.7900       \$ 43,555       51,108       \$ 1.7700       \$ 97,541       5	\$ 200,794 \$ 195,981 \$ 162,524 \$ 157,432 \$ 199,142 \$ 192,645 \$ 141,448 \$ 141,076 \$ 169,457 \$ 111,980 \$ 238,694 \$ 168,092
February       76,555       \$ 3,2200       \$ 246,507       76,555       \$ 0.7900       \$ 60,478       76,555       \$ 1.7700       \$ 135,502         March       59,880       \$ 3,2200       \$ 192,814       63,486       \$ 0.7900       \$ 50,154       63,486       \$ 1.7700       \$ 112,370         April       41,747       \$ 3,2200       \$ 134,425       61,497       \$ 0.7900       \$ 48,583       61,497       \$ 1.7700       \$ 112,370         May       71,340       \$ 3,2200       \$ 220,9715       77,790       \$ 0.7900       \$ 48,583       61,497       \$ 1.7700       \$ 133,196         June       63,964       \$ 3,2200       \$ 205,964       75,252       \$ 0.7900       \$ 43,650       55,253       \$ 1.7700       \$ 133,196         July       50,224       \$ 3,2200       \$ 161,721       55,253       \$ 0.7900       \$ 43,650       55,253       \$ 1.7700       \$ 97,788         August       50,954       \$ 3,2200       \$ 164,727       55,108       \$ 0.7900       \$ 43,650       55,253       \$ 1.7700       \$ 97,788         September       56,600       \$ 3,2200       \$ 164,072       55,108       \$ 0.7900       \$ 34,556       43,742       \$ 1.7700       \$ 117,163	\$ 195,981 \$ 162,524 \$ 157,432 \$ 199,142 \$ 192,645 \$ 141,448 \$ 141,076 \$ 169,457 \$ 111,980 \$ 238,694 \$ 166,932
March       59,880       \$ 3,2200       \$ 192,814       63,486       \$ 0,7900       \$ 50,154       63,486       \$ 1,7700       \$ 112,370         April       41,747       \$ 3,2200       \$ 134,425       61,497       \$ 0,7900       \$ 48,583       61,497       \$ 1,7700       \$ 108,850         May       71,340       \$ 3,2200       \$ 229,715       77,790       \$ 0,7900       \$ 61,454       77,790       \$ 17,700       \$ 108,850         June       63,964       \$ 3,2200       \$ 229,715       77,790       \$ 0,7900       \$ 61,454       77,790       \$ 117,00       \$ 113,3196         June       63,964       \$ 3,2200       \$ 161,721       55,253       \$ 0,7900       \$ 43,650       55,253       \$ 1,7700       \$ 97,788         August       50,954       \$ 3,2200       \$ 161,721       55,253       \$ 0,7900       \$ 43,535       55,108       \$ 1,7700       \$ 97,788         September       56,600       \$ 3,2200       \$ 182,252       66,194       \$ 0,7900       \$ 52,293       66,194       \$ 1,7700       \$ 117,163         October       42,439       \$ 3,2200       \$ 136,654       43,742       \$ 0,7900       \$ 34,556       43,742       \$ 1,7700       \$ 117,163         <	\$ 162,524 \$ 157,432 \$ 199,142 \$ 192,645 \$ 141,448 \$ 141,076 \$ 169,457 \$ 111,980 \$ 238,694 \$ 168,092
April       41,747       \$ 3,2200       \$ 134,425       61,497       \$ 0,7900       \$ 48,583       61,497       \$ 1,7700       \$ 108,850         May       71,340       \$ 3,2200       \$ 229,715       77,790       \$ 0,7900       \$ 61,454       77,790       \$ 1,7700       \$ 137,688         June       63,964       \$ 3,2200       \$ 205,964       75,252       \$ 0,7900       \$ 59,449       75,252       \$ 1,7700       \$ 133,196         July       50,224       \$ 3,2200       \$ 161,721       55,253       \$ 0,7900       \$ 43,650       55,253       \$ 1,7700       \$ 97,788         August       50,954       \$ 3,2200       \$ 164,072       55,108       \$ 0,7900       \$ 43,650       55,253       \$ 1,7700       \$ 97,784         September       56,600       \$ 3,2200       \$ 164,072       55,108       \$ 0,7900       \$ 43,555       55,108       \$ 1,7700       \$ 97,541         September       56,600       \$ 3,2200       \$ 182,252       66,194       \$ 0,7900       \$ 34,556       43,742       \$ 1,7700       \$ 77,423         November       79,254       \$ 3,2200       \$ 136,654       43,742       \$ 0,7900       \$ 73,660       93,240       \$ 1,7700       \$ 116,035       3200	\$ 157,432 \$ 199,142 \$ 192,645 \$ 141,448 \$ 141,076 \$ 169,457 \$ 111,980 \$ 238,694 \$ 168,092
May       71,340       \$ 3,2200       \$ 229,715       77,790       \$ 0.7900       \$ 61,454       77,790       \$ 1.7700       \$ 137,688         June       63,964       \$ 3,2200       \$ 205,964       75,252       \$ 0.7900       \$ 59,449       75,252       \$ 1.7700       \$ 133,196         July       50,224       \$ 3,2200       \$ 161,721       55,253       \$ 0.7900       \$ 43,650       55,253       \$ 1.7700       \$ 97,541         August       50,954       \$ 3,2200       \$ 161,072       55,108       \$ 0.7900       \$ 43,650       55,253       \$ 1.7700       \$ 97,541         September       56,600       \$ 3,2200       \$ 182,252       66,194       \$ 0.7900       \$ 52,293       66,194       \$ 1.7700       \$ 117,163         October       42,439       \$ 3,2200       \$ 136,654       43,742       \$ 0.7900       \$ 34,556       43,742       \$ 1.7700       \$ 77,423         November       79,254       \$ 3,2200       \$ 136,654       43,742       \$ 0.7900       \$ 73,660       93,240       \$ 1.7700       \$ 116,220         December       55,185       \$ 3,2200       \$ 177,696       65,661       \$ 0.7900       \$ 51,872       65,661       \$ 1.7700       \$ 116,220       \$ 116,220 <td>\$ 199,142 \$ 192,645 \$ 141,448 \$ 141,076 \$ 169,457 \$ 111,980 \$ 238,694 \$ 168,092</td>	\$ 199,142 \$ 192,645 \$ 141,448 \$ 141,076 \$ 169,457 \$ 111,980 \$ 238,694 \$ 168,092
June       63,964       \$ 3,220       \$ 205,964       75,252       \$ 0.7900       \$ 59,449       75,252       \$ 1.7700       \$ 133,196         July       50,224       \$ 3,2200       \$ 161,721       55,253       \$ 0.7900       \$ 43,650       55,253       \$ 1.7700       \$ 97,788         August       50,954       \$ 3,2200       \$ 164,072       55,108       \$ 0.7900       \$ 43,650       55,263       \$ 1.7700       \$ 97,788         September       56,600       \$ 3,2200       \$ 164,072       56,194       \$ 0.7900       \$ 43,535       55,108       \$ 1.7700       \$ 97,541         September       56,600       \$ 3,2200       \$ 166,654       43,742       \$ 0.7900       \$ 34,556       43,742       \$ 1.7700       \$ 117,163         October       42,439       \$ 3,2200       \$ 136,654       43,742       \$ 0.7900       \$ 34,556       43,742       \$ 1.7700       \$ 177,423         November       79,254       \$ 3,2200       \$ 255,198       93,240       \$ 0.7900       \$ 51,872       65,661       \$ 1.7700       \$ 165,035         December       55,185       \$ 3,220       \$ 177,696       65,661       \$ 0.790       \$ 51,872       65,661       \$ 1.7700       \$ 116,220	\$ 192,645 \$ 141,448 \$ 141,076 \$ 169,457 \$ 111,980 \$ 238,694 \$ 168,092
July       50,224       \$ 3,220       \$ 161,721       55,253       \$ 0,7900       \$ 43,650       55,253       \$ 1,7700       \$ 97,798         August       50,954       \$ 3,2200       \$ 164,072       55,108       \$ 0,7900       \$ 43,650       55,253       \$ 1,7700       \$ 97,798         September       56,600       \$ 3,2200       \$ 164,072       55,108       \$ 0,7900       \$ 43,535       55,108       \$ 1,7700       \$ 97,541         September       56,600       \$ 3,2200       \$ 182,252       66,194       \$ 0,7900       \$ 52,293       66,194       \$ 1,7700       \$ 117,163         October       42,439       \$ 3,2200       \$ 136,654       43,742       \$ 0,7900       \$ 34,556       43,742       \$ 1,7700       \$ 117,163         November       79,254       \$ 3,2200       \$ 136,654       43,742       \$ 0,7900       \$ 73,660       93,240       \$ 1,7700       \$ 116,200         December       55,185       \$ 3,2200       \$ 177,696       65,661       \$ 0,7900       \$ 51,872       65,661       \$ 1,7700       \$ 116,220         Total       721,565       \$ 3,22       \$ 2,323,439       812,213       \$ 0,79       \$ 641,648       812,213       \$ 1,77       \$ 1,437,617 </td <td>\$ 141,448 \$ 141,076 \$ 169,457 \$ 111,980 \$ 238,694 \$ 168,092</td>	\$ 141,448 \$ 141,076 \$ 169,457 \$ 111,980 \$ 238,694 \$ 168,092
August       50,954       \$ 3,2200       \$ 164,072       55,108       \$ 0.7900       \$ 43,535       55,108       \$ 1.7700       \$ 97,541         September       56,600       \$ 3,2200       \$ 182,252       66,194       \$ 0.7900       \$ 52,293       66,194       \$ 1.7700       \$ 117,163         October       42,439       \$ 3,2200       \$ 136,654       43,742       \$ 0.7900       \$ 34,556       43,742       \$ 1.7700       \$ 117,163         November       79,254       \$ 3,2200       \$ 136,654       43,742       \$ 0.7900       \$ 34,556       43,742       \$ 1.7700       \$ 77,423         December       79,254       \$ 3,2200       \$ 255,198       93,240       \$ 0.7900       \$ 73,660       93,240       \$ 1.7700       \$ 116,035         December       55,185       \$ 3,2200       \$ 177,696       65,661       \$ 0.7900       \$ 51,872       65,661       \$ 1.7700       \$ 116,220         Total       721,565       \$ 3,22       \$ 2,323,439       812,213       \$ 0.79       \$ 641,648       812,213       \$ 1.77       \$ 1,437,617	\$ 141,076 \$ 169,457 \$ 111,980 \$ 238,694 \$ 168,092
September         56,600         \$ 3,2200         \$ 182,252         66,194         \$ 0.7900         \$ 52,293         66,194         \$ 1.7700         \$ 117,163         3 2200         \$ 136,654         43,742         \$ 0.7900         \$ 34,556         43,742         \$ 1.7700         \$ 77,423         3 2200         \$ 136,654         43,742         \$ 0.7900         \$ 34,556         43,742         \$ 1.7700         \$ 77,423         3 2200         \$ 177,696         65,661         \$ 0.7900         \$ 73,660         93,240         \$ 1.7700         \$ 116,035         3 116,035         3 2200         \$ 177,696         65,661         \$ 0.7900         \$ 51,872         65,661         \$ 1.7700         \$ 116,220         3 116,2	\$ 169,457 \$ 111,980 \$ 238,694 \$ 168,092
September         56,600         \$ 3,2200         \$ 182,252         66,194         \$ 0.7900         \$ 52,293         66,194         \$ 1.7700         \$ 117,163         3 2200         \$ 136,654         43,742         \$ 0.7900         \$ 34,556         43,742         \$ 1.7700         \$ 77,423         3 2200         \$ 136,654         43,742         \$ 0.7900         \$ 34,556         43,742         \$ 1.7700         \$ 77,423         3 2200         \$ 177,696         65,661         \$ 0.7900         \$ 73,660         93,240         \$ 1.7700         \$ 116,035         3 116,035         3 2200         \$ 177,696         65,661         \$ 0.7900         \$ 51,872         65,661         \$ 1.7700         \$ 116,220         3 116,2	\$ 169,457 \$ 111,980 \$ 238,694 \$ 168,092
October       42,439       \$ 3,2200       \$ 136,654       43,742       \$ 0.7900       \$ 34,556       43,742       \$ 1.7700       \$ 77,423       \$         November       79,254       \$ 3,2200       \$ 255,198       93,240       \$ 0.7900       \$ 73,660       93,240       \$ 1.7700       \$ 165,035       \$       165,035       \$       165,035       \$       \$       162,035       \$       \$       116,220       \$       \$       116,220       \$       \$       116,220       \$       \$       116,220       \$       \$       \$       1,770       \$ 1,437,617       \$       \$       \$       \$       1,437,617       \$	\$ 238,694 \$ 168,092
November         79,254         \$ 3.2200         \$ 255,198         93,240         \$ 0.7900         \$ 73,660         93,240         \$ 1.7700         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 165,035         \$ 162,035 <td>\$ 238,694 \$ 168,092</td>	\$ 238,694 \$ 168,092
December         55,185         \$ 3,2200         \$ 177,696         65,661         \$ 0.7900         \$ 51,872         65,661         \$ 1.7700         \$ 116,220         \$ 116,220         \$ 177,617         \$ 116,220 <td>\$ 168,092</td>	\$ 168,092
Total 721,565 \$ 3.22 \$ 2,323,439 812,213 \$ 0.79 \$ 641,648 812,213 \$ 1.77 \$ 1,437,617	· · ·
	\$ 2,079,265
Transformation Connection	,
HYDRO ONE Network Line Connection Transformation Connection	Total Line
Month Units Billed Rate Amount Units Billed Rate Amount Units Billed Rate Amount	Amount
January 49,491 \$ 2.6970 \$ 133,477 49,491 \$ 0.6150 \$ 30,437 49,491 \$ 1.5000 \$ 74,237	\$ 104,673
February 60,620 \$ 2.6970 \$ 163,492 60,620 \$ 0.6150 \$ 37,281 60,620 \$ 1.5000 \$ 90,930	\$ 128,211
	\$ 145,097
	\$ 128,603
	\$ 63,761
	\$ 133,892
	\$ 151,732
	\$ 139,966
	\$ 123,025
	\$ 111,334
	\$ 164,511
	\$ 158,339
Total 734,348 \$ 2.70 \$ 1,980,537 734,348 \$ 0.62 \$ 451,624 734,348 \$ 1.50 \$ 1,101,522	\$ 1,553,146
TOTAL Network Line Connection Transformation Connection	Total Line
Month Units Billed Rate Amount Units Billed Rate Amount Units Billed Rate Amount	Amount
January 122,914 \$ 3.01 \$ 369,899 127,926 \$ 0.72 \$ 92,401 127,926 \$ 1.67 \$ 213,066	\$ 305,467
	\$ 324,192
	\$ 307,622
	\$ 286,035
	\$ 262,903
	\$ 326,537
	\$ 293,180
	\$ 281,043
	\$ 292,482
	\$ 223,313
	\$ 403,205
	\$ 326,432
Total 1,455,913 \$ 2.96 \$ 4,303,976 1,546,561 \$ 0.71 \$ 1,093,272 1,546,561 \$ 1.64 \$ 2,539,139	\$ 3,632,411

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 4 Page 9 of 13



Ontario Energy Board RTSR WORK FORM FOR ELECTRICITY DISTRIBUTORS

Kingston Hydro Corporation - EB-2011-0178 - IRM3

The purpose of this sheet is to re-align the current RTS Network Rates to recover current wholesale network costs.

Rate Class	Unit	 nt RTSR - etwork	Loss Adjusted Billed kWh	Loss Adjusted Billed kW	Billed Amount	Billed Amount %	Current Vholesale Billing	djusted RTSR letwork
Residential	kWh	\$ 0.0057	196,336,452	-	\$ 1,119,118	27.0%	\$ 1,160,755	\$ 0.0059
General Service Less Than 50 kW	kWh	\$ 0.0052	95,466,273	-	\$ 496,425	12.0%	\$ 514,894	\$ 0.0054
General Service 50 to 4,999 kW	kW	\$ 2.2797	273,509,756	747,917	\$ 1,705,026	41.1%	\$ 1,768,463	\$ 2.3645
Large Use	kW	\$ 2.7468	148,872,806	289,659	\$ 795,635	19.2%	\$ 825,237	\$ 2.8490
Unmetered Scattered Load	kWh	\$ 0.0057	2,335,819	-	\$ 13,314	0.3%	\$ 13,810	\$ 0.0059
Street Lighting	kW	\$ 1.6467	4,402,842	12,188	\$ 20,070	0.5%	\$ 20,817	\$ 1.7080
Standby Power - APPROVED ON AN INTERIM BASIS	0	\$ -	-	-	\$ -	0.0%	\$ -	\$ -
					\$ 4,149,588			

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 4 Page 10 of 13



Ontario Energy Board RTSR WORK FORM FOR ELECTRICITY DISTRIBUTORS

Kingston Hydro Corporation - EB-2011-0178 - IRM3

The purpose of this sheet is to re-align the current RTS Connection Rates to recover current wholesale connection costs.

Rate Class	Unit	 ent RTSR - nnection	Loss Adjusted Billed kWh	Loss Adjusted Billed kW	Billed Amount	Billed Amount %	Current Vholesale Billing	djusted RTSR onnection
Residential	kWh	\$ 0.0050	196,336,452	-	\$ 981,682	27.1%	\$ 984,143	\$ 0.0050
General Service Less Than 50 kW	kWh	\$ 0.0046	95,466,273	-	\$ 439,145	12.1%	\$ 440,246	\$ 0.0046
General Service 50 to 4,999 kW	kW	\$ 1.9813	273,509,756	747,917	\$ 1,481,848	40.9%	\$ 1,485,563	\$ 1.9863
Large Use	kW	\$ 2.3874	148,872,806	289,659	\$ 691,532	19.1%	\$ 693,265	\$ 2.3934
Unmetered Scattered Load	kWh	\$ 0.0050	2,335,819	-	\$ 11,679	0.3%	\$ 11,708	\$ 0.0050
Street Lighting	kW	\$ 1.4311	4,402,842	12,188	\$ 17,442	0.5%	\$ 17,486	\$ 1.4347
Standby Power - APPROVED ON AN INTERIM BASIS	0	\$ -	-	-	\$ -	0.0%	\$ -	\$ -
					\$ 3,623,328			

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 4 Page 11 of 13



Ontario Energy Board RTSR WORK FORM FOR ELECTRICITY DISTRIBUTORS

Kingston Hydro Corporation - EB-2011-0178 - IRM3

The purpose of this sheet is to update the re-align RTS Network Rates to recover forecast wholesale network costs.

Rate Class	Unit	,	ted RTSR - etwork	Loss Adjusted Billed kWh	Loss Adjusted Billed kW	Billed Amount	Billed Amount %	Forecast Vholesale Billing	roposed RTSR Jetwork
Residential	kWh	\$	0.0059	196,336,452	-	\$ 1,160,755	27.0%	\$ 1,160,755	\$ 0.0059
General Service Less Than 50 kW	kWh	\$	0.0054	95,466,273	-	\$ 514,894	12.0%	\$ 514,894	\$ 0.0054
General Service 50 to 4,999 kW	kW	\$	2.3645	273,509,756	747,917	\$ 1,768,463	41.1%	\$ 1,768,463	\$ 2.3645
Large Use	kW	\$	2.8490	148,872,806	289,659	\$ 825,237	19.2%	\$ 825,237	\$ 2.8490
Unmetered Scattered Load	kWh	\$	0.0059	2,335,819	-	\$ 13,810	0.3%	\$ 13,810	\$ 0.0059
Street Lighting	kW	\$	1.7080	4,402,842	12,188	\$ 20,817	0.5%	\$ 20,817	\$ 1.7080
Standby Power - APPROVED ON AN INTERIM BASIS	0	\$	-	-	-	\$ -	0.0%	\$ -	\$ -
						\$ 4,303,976			

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 4 Page 12 of 13



Ontario Energy Board RTSR WORK FORM FOR ELECTRICITY DISTRIBUTORS

Kingston Hydro Corporation - EB-2011-0178 - IRM3

The purpose of this sheet is to update the re-aligned RTS Connection Rates to recover forecast wholesale connection costs.

Rate Class	Unit	,	ted RTSR - nnection	Loss Adjusted Billed kWh	Loss Adjusted Billed kW	1	Billed Amount	Billed Amount %	V	Forecast Vholesale Billing	roposed RTSR onnection
Residential	kWh	\$	0.0050	196,336,452	-	\$	984,143	27.1%	\$	984,143	\$ 0.0050
General Service Less Than 50 kW	kWh	\$	0.0046	95,466,273	-	\$	440,246	12.1%	\$	440,246	\$ 0.0046
General Service 50 to 4,999 kW	kW	\$	1.9863	273,509,756	747,917	\$	1,485,563	40.9%	\$	1,485,563	\$ 1.9863
Large Use	kW	\$	2.3934	148,872,806	289,659	\$	693,265	19.1%	\$	693,265	\$ 2.3934
Unmetered Scattered Load	kWh	\$	0.0050	2,335,819	-	\$	11,708	0.3%	\$	11,708	\$ 0.0050
Street Lighting	kW	\$	1.4347	4,402,842	12,188	\$	17,486	0.5%	\$	17,486	\$ 1.4347
Standby Power - APPROVED ON AN INTERIM BASIS	0	\$	-	-	-	\$	-	0.0%	\$	-	\$ -
						\$	3,632,411				

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 4 Page 13 of 13



Contario Energy Board RTSR WORK FORM FOR ELECTRICITY DISTRIBUTORS

Kingston Hydro Corporation - EB-2011-0178 - IRM3

For Cost of Service Applicants, please enter the following Proposed RTS rates into your rates model.

For IRM applicants, please enter these rates into the 2012 Rate Generator.

Rate Class	Unit	sed RTSR etwork	oosed RTSR
Residential	kWh	\$ 0.0059	\$ 0.0050
General Service Less Than 50 kW	kWh	\$ 0.0054	\$ 0.0046
General Service 50 to 4,999 kW	kW	\$ 2.3645	\$ 1.9863
Large Use	kW	\$ 2.8490	\$ 2.3934
Unmetered Scattered Load	kWh	\$ 0.0059	\$ 0.0050
Street Lighting	kW	\$ 1.7080	\$ 1.4347
Standby Power - APPROVED ON AN INTERIM BASIS	0	\$ -	\$ -

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 1 of 38



Applicant Name	Kingston Hydro Corporation
Application Type	IRM3
LDC Licence Number	ED-2003-0057
Applied for Effective Date	May 1, 2012
Stretch Factor Group	II
Stretch Factor Value	0.4%
Last COS Re-based Year	2011
Last COS OEB Application Number	EB-2010-0136
ICM Billing Determinants for Growth - Numerator	2011 Re-Based Forecast
ICM Billing Determinants for Growth - Denominator	2010 Audited RRR

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 2 of 38



Ontario Energy Board Incremental Capital Workform

## **Table of Contents**

Sheet Name	Purpose of Sheet
A1.1 LDC Information	Enter LDC Data
A2.1 Table of Contents	Table of Contents
B1.1 Re-Based Bill Det & Rates	Set Up Rate Classes and enter Re-Based Billing Determinants and Tariff Rates
B1.2 Removal of Rate Adders	Removal of Rate Adders
B1.3 Re-Based Rev From Rates	Calculated Re-Based Revenue From Rates
B1.4 Re-Based Rev Reg	Detailed Re-Based Revenue From Rates
C1.1 Ld Act-Mst Rcent Yr	Enter Billing Determinants for most recent actual year
D1.1 Current Revenue from Rates	Enter Current Rates to calculate current rate allocation
E1.1 Threshold Parameters	Shows calculation of Price Cap and Growth used for incremental capital threshold calculation
E2.1 Threshold Test	Input sheet to calculate Threshold and Incremental Capital
E3.1 Summary of I C Projects	Summary of Incremental Capital Projects
E4.1 IncrementalCapitalAdjust	Shows Calculation of Incremental Capital Revenue Requirement
F1.1 Incr Cap RRider Opt A FV	Option A - Calculation of Incremental Capital Rate Rider - Fixed & Variable Split
F1.2 Incr Cap RRider Opt B Var	Option B - Calculation of Incremental Capital Rate Rider - Variable Allocation
Z1.0 OEB Control Sheet	Not Shown

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 3 of 38



# Ontario Energy Board

### Incremental Capital Workform

## Rate Class and Re-Based Billing Determinants & Rates

Select the appropriate Rate Groups and Rate Classes from the drop-down menus in Columns C and D respectively. Following your selection, all appropriate input cells will be shaded green.

	Last COS Re-based Year			2011					
	Last COS OEB Application Number			EB-2010-0136					
Rate Group	Rate Class	Fixed Metric	Vol Metric	Re-based Billed Customers or Connections A	Re-based Billed kWh B		Re-based Tariff Service Charge D	Re-based Tariff Distribution Volumetric Rate kWh E	Re-based Tariff Distribution Volumetric Rate kW F
RES	Residential	Customer	kWh	23,386	194,606,362		12.06	0.0148	
GSLT50	General Service Less Than 50 kW	Customer	kWh	3,244	93,096,784		24.83	0.0103	
GSGT50	General Service 50 to 4,999 kW	Customer	kW	347	259,610,762	701,859	269.01		1.9270
LU	Large Use	Customer	kW	3	152,017,673	297,737	4,959.68		1.0118
USL	Unmetered Scattered Load	Customer	kWh	164	2,275,040		11.09	0.0135	
SL	Street Lighting	Connection	kW	5,155	4,024,186	11,336	0.99		4.4901
SB	Standby Power - APPROVED ON AN INTERIM BASIS	Connection	kW						
NA	Rate Class 8	NA	NA						
NA	Rate Class 9	NA	NA						
NA	Rate Class 10	NA	NA						
NA	Rate Class 11	NA	NA						
NA	Rate Class 12	NA	NA						
NA	Rate Class 13	NA	NA						
NA	Rate Class 14	NA	NA						
NA	Rate Class 15	NA	NA						
NA	Rate Class 16	NA	NA						
NA	Rate Class 17	NA	NA						
NA	Rate Class 18	NA	NA						
NA	Rate Class 19	NA	NA						
NA	Rate Class 20	NA	NA						
NA	Rate Class 21	NA	NA						
NA	Rate Class 22	NA	NA						
NA	Rate Class 23	NA	NA						
NA	Rate Class 24	NA	NA						
NA	Rate Class 25	NA	NA						





#### Ontario Energy Board

Incremental Capital Workform

EB-2011-0178 Exhibit 5 Page 4 of 38

**Removal of Rate Adders** 

Last COS Re-based Year 2011

Last COS OEB Application Number

EB-2010-0136

Rate Class	Re-based Tariff Service Charge A	Re-based Tariff Distribution Volumetric Rate kWh B	Re-based Tariff Distribution Volumetric Rate kW C	Service Charge Rate Adders D	Distribution Volumetric kWh Rate Adders E	Distribution Volumetric kW Rate Adders F
Residential	12.06	0.0148	0.0000	0.00	0.0000	0.0000
General Service Less Than 50 kW	24.83	0.0103	0.0000	0.00	0.0000	0.0000
General Service 50 to 4,999 kW	269.01	0.0000	1.9270	0.00	0.0000	0.0000
Large Use	4,959.68	0.0000	1.0118	0.00	0.0000	0.0000
Unmetered Scattered Load	11.09	0.0135	0.0000	0.00	0.0000	0.0000
Street Lighting	0.99	0.0000	4.4901	0.00	0.0000	0.0000
Standby Power - APPROVED ON AN INTERIM BASIS	0.00	0.0000	0.0000	0.00	0.0000	0.0000





Contario Energy Board Incremental Capital Workform

## **Calculated Re-Based Revenue From Rates**

Last COS Re-based Year

2011

Last COS OEB Application Number

EB-2010-0136

Rate Class	Re-based Billed Customers or Connections A	Re-based Billed kWh B	Re-based Billed kW C	Re-based Base Service Charge D	Re-based Base Distribution Volumetric Rate kWh E	Re-based Base Distribution Volumetric Rate kW F	Service Charge Revenue G = A * D *12	Distribution Volumetric Rate Revenue kWh H = B * E	Distribution Volumetric Rate Revenue kW I = C * F	Revenue Requirement from Rates J = G + H + I
Residential	23,386	194,606,362	0	12.06	0.0148	0.0000	3,384,422	2,880,174	0	6,264,596
General Service Less Than 50 kW	3,244	93,096,784	0	24.83	0.0103	0.0000	966,582	958,897	0	1,925,479
General Service 50 to 4,999 kW	347	259,610,762	701,859	269.01	0.0000	1.9270	1,120,158	0	1,352,482	2,472,640
Large Use	3	152,017,673	297,737	4,959.68	0.0000	1.0118	178,548	0	301,250	479,799
Unmetered Scattered Load	164	2,275,040	0	11.09	0.0135	0.0000	21,825	30,713	0	52,538
Street Lighting	5,155	4,024,186	11,336	0.99	0.0000	4.4901	61,241	0	50,900	112,141
Standby Power - APPROVED ON AN IN	IT 0	0	0	0.00	0.0000	0.0000	0	0	0	0
							5,732,777	3,869,784	1,704,632	11,307,193



## **Detailed Re-Based Revenue From Rates**

Last COS Re-based Year

Last COS OEB Application Number

	2011	
_		
	EB-2010-0136	

Applicants Rate Base		1	Last	Rate R	e-based Amount	
Average Net Fixed Assets						
Gross Fixed Assets - Re-based Opening	\$	46,363,460	А			
Add: CWIP Re-based Opening	\$	62,500	в			
Re-based Capital Additions	\$	5,371,000	С			
Re-based Capital Disposals	\$	-	D			
Re-based Capital Retirements	\$	-	Е			
Deduct: CWIP Re-based Closing	\$	-	F			
Gross Fixed Assets - Re-based Closing	\$	51,796,960	G			
Average Gross Fixed Assets	Ŧ		-	\$	49,080,210	H = (A + G) / 2
Accumulated Depreciation - Re-based Opening	\$	16,370,377	Ι			
Re-based Depreciation Expense	\$	2,012,215	J			
Re-based Disposals	\$	-	К			
Re-based Retirements	\$	-	L			
Accumulated Depreciation - Re-based Closing	\$	18,382,592	Μ			
Average Accumulated Depreciation				\$	17,376,485	N = (I + M) / 2
verage Net Fixed Assets				\$	31,703,726	O = H - N
Vorking Capital Allowance						
Working Capital Allowance Base	\$	70,573,796	Р			
Working Capital Allowance Rate		15.0%	Q			
Vorking Capital Allowance				\$	10,586,069	R = P * Q
Rate Base				\$	42,289,795	S = O + R
Return on Rate Base						
Deemed ShortTerm Debt %		4.00%	Т	\$	1,691,592	W = S * T
Deemed Long Term Debt %		56.00%	U	\$	23,682,285	X = S * U
Deemed Equity %		40.00%	V	\$	16,915,918	Y = S * V
hort Term Interest		2.46%	Z	\$	41,613	AC = W * Z
ong Term Interest		5.01%	AA	\$	1,186,133	AD = X * AA
Return on Equity		9.58%	AB	\$	1,620,545	AE = Y * AB
Return on Rate Base				\$	2,848,291	AF = AC + AD + AE
Distribution Expenses						
OM&A Expenses	\$	6,357,503	AG			
Amortization	\$	2,012,215	AH			
Ontario Capital Tax (F1.1 Z-Factor Tax Changes)	\$	-	AI			
Grossed Up PILs (F1.1 Z-Factor Tax Changes)	\$	557,623	AJ			
Low Voltage			AK			
Transformer Allowance	\$	208,045	AL			
			AM			
			AN			
			AO	¢	0 435 396	
				\$	9,130,380	AP = SUM ( AG : AO )
Revenue Offsets	•					
Specific Service Charges	-5	268,031				
ate Payment Charges	-5	37,901				
Other Distribution Income	-\$ -\$ -\$ -\$	105,546		•		
Other Income and Deductions	-\$	272,118	AT	-\$	683,596	AU = SUM ( AQ : AT )
Revenue Requirement from Distribution Rates				\$	11,300,081	AV = AF + AP + AU
Rate Classes Revenue						
Rate Classes Revenue - Total (B1.1 Re-based Revenue - Gen)				\$	11,307,193	AW

B1.4 Re-Based Rev Req

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 7 of 38



#### Load Actual - Most Recent Year

Rate Class	Fixed Metric	: Vol Metric	Billed Customers or Connections	Billed kWh I	Billed kW	Base Service Charge	Base Distribution Volumetric Rate kWh	Base Distribution Volumetric Rate kW	E Service Charge Revenue	Distribution Volumetric E Rate Revenue kWh	Distribution Volumetric Rate Revenue kW	Total Revenue by Rate Class
			Α	в	С	D	E	F	G = A * D * 12	H = B * E	I = C * F	J = G + H + I
Residential	Customer	kWh	23,336	189,807,088	0	\$12.06	\$0.0148	\$0.0000	\$3,377,186	\$2,809,145	\$0	\$6,186,331
General Service Less Than 50 kW	Customer	kWh	3,264	92,291,447	0	\$24.83	\$0.0103	\$0.0000	\$972,541	\$950,602	\$0	\$1,923,143
General Service 50 to 4,999 kW	Customer	kW	341	273,509,756	747,917	\$269.01	\$0.0000	\$1.9270	\$1,100,789	\$0	\$1,441,236	\$2,542,025
Large Use	Customer	kW	3	148,872,806	289,659	\$4,959.68	\$0.0000	\$1.0118	\$178,548	\$0	\$293,077	\$471,625
Unmetered Scattered Load	Customer	kWh	158	2,258,139	0	\$11.09	\$0.0135	\$0.0000	\$21,027	\$30,485	\$0	\$51,512
Street Lighting	Connection	kW	5,118	4,402,842	12,188	\$0.99	\$0.0000	\$4.4901	\$60,802	\$0	\$54,725	\$115,527
Standby Power - APPROVED ON AN	Connection	kW	0	0	0	\$0.00	\$0.0000	\$0.0000	\$0	\$0	\$0	\$0
									\$5,710,893	\$3,790,232	\$1,789,038	\$11,290,163

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 8 of 38



This sheet is used to determine the applicants most current allocation of revenues (after the most recent revenue cost ratio adjustment, if applicable) to be used to calculate the incremental capital rate riders.

#### Current Revenue from Rates

Rate Class	Fixed Metric	Vol Metric	Current Base Service Charge A	Current Base Distribution Volumetric Rate kWh B	Current Base Distribution Volumetric Rate kW C	Re-based Billed Customers or Connections D	Re-based Billed kWh E	Re-based Billed kW F	Current Base Service Charge Revenue G = A * D *12	Current Base Distribution Volumetric Rate kWh Revenue H = B * E	Current Base Distribution Volumetric Rate kW Revenue I = C * F	Total Current Base Revenue J = G + H + I	Service Charge % Total Revenue L = G / \$K	Distribution Volumetric Rate % Total Revenue M = H / \$K		
Residential	Customer	kWh	12.06	0.0148		23,386	194,606,362	0	3,384,422	2,880,174	0	6,264,596	29.9%	25.5%	0.0%	55.4%
General Service Less Than 50 kW	Customer	kWh	24.83	0.0103		3,244	93,096,784	0	966,582	958,897	0	1,925,479	8.5%	8.5%	0.0%	17.0%
General Service 50 to 4,999 kW	Customer	kW	269.01		1.9270	347	259,610,762	701,859	1,120,158	0	1,352,482	2,472,640	9.9%	0.0%	12.0%	21.9%
Large Use	Customer	kW	4,959.68		1.0118	3	152,017,673	297,737	178,548	0	301,250	479,799	1.6%	0.0%	2.7%	4.2%
Unmetered Scattered Load	Customer	kWh	11.09	0.0135		164	2,275,040	0	21,825	30,713	0	52,538	0.2%	0.3%	0.0%	0.5%
Street Lighting	Connection	kW	0.99		4.4901	5,155	4,024,186	11,336	61,241	0	50,900	112,141	0.5%	0.0%	0.5%	1.0%
Standby Power - APPROVED ON AN INTERIM BA	Connection	kW				0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%

5,732,777 3,869,784 1,704,632 11,307,193 50.7% 34.2% 15.1% 100.0%



Ontario Energy Board Incremental Capital Workform

## **Threshold Parameters**

#### Price Cap Index

Price Cap Index	0.18%
Less Stretch Factor	-0.40%
Less Productivity Factor	-0.72%
Price Escalator (GDP-IPI)	1.30%

#### Growth

Growth

ICM Billing Determinants for Growth - Numerator : 2011 Re-Based Forecast	\$11,290,163	А
ICM Billing Determinants for Growth - Denominator : 2010 Audited RRR		в

0.00% C = A / B



Ontario Energy Board
Incremental Capital
Workform

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 10 of 38

## **Threshold Test**

Year	2011	
Price Cap Index Growth Dead Band	0.18% 0.00% 20%	A B C
Average Net Fixed Assets Gross Fixed Assets Opening Add: CWIP Opening Capital Additions Capital Disposals Capital Retirements Deduct: CWIP Closing Gross Fixed Assets - Closing	\$46,363,460 \$62,500 \$5,371,000 \$- \$- \$- \$51,796,960	
Average Gross Fixed Assets	\$49,080,210	-
Accumulated Depreciation - Opening Depreciation Expense Disposals Retirements Accumulated Depreciation - Closing	\$16,370,377 \$2,012,215 \$- \$- \$18,382,592	D
Average Accumulated Depreciation	\$17,376,485	-
Average Net Fixed Assets	\$31,703,726	Ē
Working Capital Allowance Working Capital Allowance Base Working Capital Allowance Rate Working Capital Allowance	\$70,573,796 15% \$10,586,069	F
Rate Base	\$42,289,795	G = E + F
Depreciation D	\$ 2,012,215	н
Threshold Test	123 78%	I = 1 + ( G / H) * ( B + A * ( 1 + B)) + C

Threshold CAPEX

\$ 2,490,780 **J = H** \***I** 

E2.1 Threshold Test



Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 11 of 38

Ontario Energy Board Incremental Capital Workform

## Summary of Incremental Capital Projects (ICPs)

Number of ICPs 4

Project ID #	Incremental Capital Non-Discretionary Project Description	Incrementa I Capital CAPEX	Amortizatio n Expense	CCA
ICP 1	King Street 44kV Cable Re-build	1,860,000	31,040	148,800
ICP 2	Transformer Vault 6	565,000	12,223	45,200
ICP 3	Municipal Substation # 15	560,000	13,900	44,200
ICP 4	Transformer Vault 11	515,000	11,417	41,200
		3,500,000	68,580	279,400



**Incremental Capital** 

## **Incremental Capital Adjustment**

		\$ <i>`</i>	11,300,081	А
		\$	3,500,000	В
		\$	68,580	С
		\$	3,431,420	D = B - C
4.0%	Е	\$	137,257	G = D * E
56.0%	F	\$	1,921,595	H = D * F
2.46%	I	\$	3,377	K = G * I
5.01%	J	\$	96,244	L = H * J
		\$	99,620	M = K + L
40.0%	N	\$	1,372,568	P = D * N
9.58%	0	\$	131,492	Q = P * O
		\$	231,112	R = M + Q
	56.0% 2.46% 5.01% 40.0%	56.0% F 2.46% I 5.01% J 40.0% N	4.0% E \$ 56.0% F \$ 2.46% I \$ 5.01% J \$ .01% N \$ 9.58% O \$	4.0% <b>E</b> \$ 137,257 56.0% <b>F</b> \$ 1,921,595 2.46% <b>J</b> \$ 3,377 5.01% <b>J</b> \$ 96,244 <u>\$ 99,620</u> 40.0% <b>N</b> \$ 1,372,568 9.58% <b>O</b> \$ 131,492

Amortization Expense					
Amortization Expense - Incremental		с	\$	68,580	S
Grossed up PIL's					
Regulatory Taxable Income	(	0	\$	131,492	т
Add Back Amortization Expense	:	s	\$	68,580	U
Deduct CCA			\$	279,400	v
Incremental Taxable Income		-	-\$	79,328	W = T + U - V
Current Tax Rate (F1.1 Z-Factor Tax Changes)	28.3%	x			
PIL's Before Gross Up			-\$	22,410	Y = W * X
Incremental Grossed Up PIL's			-\$	31,234	Z = Y / (1 - X)
Ontario Capital Tax	7				l
Incremental Capital CAPEX			\$	3,500,000	AA
Less : Available Capital Exemption (if any)			\$	-	AB
Incremental Capital CAPEX subject to OCT		-	\$	3,500,000	AC = AA - AB
Ontario Capital Tax Rate (F1.1 Z-Factor Tax Changes)	0.000% <b>A</b>	D			
Incremental Ontario Capital Tax		-	\$	-	AE = AC * AD
Incremental Revenue Requirement	7				l
Return on Rate Base - Total	(	Q	\$	231,112	AF
Amortization Expense - Total			\$	68,580	AG
Incremental Grossed Up PIL's	:	z	-\$	31,234	AH
Incremental Ontario Capital Tax	4	١E	\$	-	AI
Incremental Revenue Requirement			\$	268,458	AJ = AF + AG + AH + AI





Ontario Energy Board Incremental Capital Workform

## Calculation of Incremental Capital Rate Rider - Option A Fixed and Variable

Rate Class	Service Charge % Revenue A	n Volumetric Rate % Revenue	Distributio n Volumetric Rate % Revenue kW C	Service Charge Revenue D = \$N * A	Distribution Volumetric Rate Revenue kWh E = \$N * B	Distribution Volumetric Rate Revenue kW F = \$N * C	Total Revenue by Rate Class G = D + E + F	Billed Customers or Connection s H		Billed kW J	Service Charge Rate Rider K = D / H / 12	Rate Rider	n Volumetric Rate kW
Residential	29.9%	25.5%	0.0%	\$ 80,353.86	\$ 68,381.87	\$-	\$ 148,735.73	23,386	3 194,606,362	2 0	\$0.286332	\$0.000351	
General Service Less Than 50 kW	8.5%	8.5%	0.0%	\$ 22,948.86	\$ 22,766.39	\$-	\$ 45,715.25	3,244	93,096,784	4 0	\$0.589521	\$0.000245	
General Service 50 to 4,999 kW	9.9%	0.0%	12.0%	\$ 26,595.09	\$-	\$ 32,111.00	\$ 58,706.09	347	259,610,762	2 701,859	\$6.386908	\$0.000000	\$0.045751
Large Use	1.6%	0.0%	2.7%	\$ 4,239.15	\$-	\$ 7,152.37	\$ 11,391.51	3	3 152,017,673	3 297,737	\$117.754062	\$0.000000	\$0.024022
Unmetered Scattered Load	0.2%	0.3%	0.0%	\$ 518.18	\$ 729.20	\$-	\$ 1,247.38	164	2,275,040	0 0	\$0.263302	\$0.000321	
Street Lighting	0.5%	0.0%	0.5%	\$ 1,454.01	\$-	\$ 1,208.48	\$ 2,662.49	5,155	5 4,024,186	6 11,336	\$0.023505	\$0.000000	\$0.106605
Standby Power - APPROVED ON AN IN	T 0.0%	0.0%	0.0%	\$-	\$-	\$-	\$-	C	) (	0 0			
				\$136,109.14	\$ 91,877.46	\$ 40,471.84	\$ 268,458.44						

-

Enter the above rate riders onto "Sheet 14. Proposed Rate\_Riders" in the 2012 OEB IRM3 Rate Generator as an "Rate Rider for Incremental

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 14 of 38



Ontario Energy Board Incremental Capital Workform

## **Calculation of Incremental Capital Rate Rider - Option B Variable**

Rate Class	Total Revenue \$ by Rate Class A	Total Revenue % by Rate Class B = A / \$H	Total Incremental Capital \$ by Rate Class C = \$I * B	Billed kWh D	Billed kW E	Distributio n Volumetric Rate kWh Rate Rider F = C / D	Distributio n Volumetric Rate kW Rate Rider G = C / E
Residential	\$6,264,596	55.40%	\$148,736	194,606,362	0	\$0.0008	
General Service Less Than 50 kW	\$1,925,479	17.03%	\$45,715	93,096,784	0	\$0.0005	
General Service 50 to 4,999 kW	\$2,472,640	21.87%	\$58,706	259,610,762	701,859		\$0.0836
Large Use	\$479,799	4.24%	\$11,392	152,017,673	297,737		\$0.0383
Unmetered Scattered Load	\$52,538	0.46%	\$1,247	2,275,040	0	\$0.0005	
Street Lighting	\$112,141	0.99%	\$2,662	4,024,186	11,336		\$0.2349
Standby Power - APPROVED ON AN IN	r \$0	0.00%	\$0	0	0		
	\$11,307,193	100.00%	\$268,458				
	Н					Enter the above	rate riders onto

"Sheet 14. Proposed Rate\_Riders" in the 2012 OEB IRM3 Rate Generator as an "Rate Rider for Incremental Capital"

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 15 of 38



Kingston Hydro Corporation

Using the pull-down menu below, please identify what year of the IRM cycle you are in. 1st year of IRM cycle

Name or General Description of Project

King Street 44kV Cable Re-build

#### **Details of Project**

Per attached Summary

		Depreciation			
Asset Component	Capital Cost	Rate	CCA Class	CCA Rate	
1 Ducts	720,000	2%	47	8%	
2 Manholes	320,000	2%	47	8%	
3 Cable	820,000	2%	47	8%	
4					
5					
	2012	2013	2014	2015	2016
Closing Net Fixed Asset	1,828,960	1,797,921	1,766,881	1,735,841	1,704,802
Amortization Expense	31,040	31,040	31,040	31,040	31,040
CCA	148,800	136,896	125,944	115,869	106,599

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 16 of 38



Contario Energy Board Incremental Capital Project

Summary

**Kingston Hydro Corporation** 

Name or General Description of Project King Street 44kV Cable Re-build

Asset Component
Ducts

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

		2012		2013		2014		2015		2016
	Fo	precasted	Fo	precasted	Fc	precasted	Fo	precasted	Fo	precasted
	\$ -		\$	720,000	\$	720,000	\$	720,000	\$	720,000
	\$	720,000	\$	1.1	\$	1.1	\$	1.1	\$	
	\$	720,000	\$	720,000	\$	720,000	\$	720,000	\$	720,000
	\$	-	\$	13,091	\$	26,182	\$	39,273	\$	52,364
2%	\$	13,091	\$	13,091	\$	13,091	\$	13,091	\$	13,091
	\$	13,091	\$	26,182	\$	39,273	\$	52,364	\$	65,455
	\$	-	\$	706,909	\$	693,818	\$	680,727	\$	667,636
	\$	706,909	\$	693,818	\$	680,727	\$	667,636	\$	654,545
	\$	353,455	\$	700,364	\$	687,273	\$	674,182	\$	661,091

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

_					
	\$-	\$ 662,400	\$ 609,408	\$ 560,655	\$ 515,803
	\$ 720,000	\$-	\$-	\$-	\$-
	\$ 720,000	\$ 662,400	\$ 609,408	\$ 560,655	\$ 515,803
	\$ -	\$-	\$-	\$-	\$-
	\$ 720,000	\$ 662,400	\$ 609,408	\$ 560,655	\$ 515,803

×						
	\$ 57,600	\$ 52,992	\$ 48,753	\$ 44,852	\$ 41,264	
	\$ 662,400	\$ 609,408	\$ 560,655	\$ 515,803	\$ 474,539	

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 17 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project King Street 44kV Cable Re-build

Asset Component Manholes

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

		2012		2013		2014		2015		2016
	Fo	precasted	Fo	precasted	Fc	precasted	Fo	precasted	Fo	precasted
	\$	-	\$	320,000	\$	320,000	\$	320,000	\$	320,000
	\$	320,000	\$	1.1	\$	1.1	\$	1.1	\$	
	\$	320,000	\$	320,000	\$	320,000	\$	320,000	\$	320,000
	\$	-	\$	5,333	\$	10,667	\$	16,000	\$	21,333
2%	\$	5,333	\$	5,333	\$	5,333	\$	5,333	\$	5,333
	\$	5,333	\$	10,667	\$	16,000	\$	21,333	\$	26,667
	\$	-	\$	314,667	\$	309,333	\$	304,000	\$	298,667
	\$	314,667	\$	309,333	\$	304,000	\$	298,667	\$	293,333
	\$	157,333	\$	312,000	\$	306,667	\$	301,333	\$	296,000

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ -	\$ 294,400	\$ 270,848	\$ 249,180	\$ 229,246
	\$ 320,000	\$ -	\$ -	\$ -	\$ -
	\$ 320,000	\$ 294,400	\$ 270,848	\$ 249,180	\$ 229,246
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 320,000	\$ 294,400	\$ 270,848	\$ 249,180	\$ 229,246
47					

,					
	\$ 25,600	\$ 23,552	\$ 21,668	\$ 19,934	\$ 18,340
	\$ 294,400	\$ 270,848	\$ 249,180	\$ 229,246	\$ 210,906

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 18 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project King Street 44kV Cable Re-build

Asset Component

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

		2012		2013		2014		2015		2016
	Fo	precasted								
	\$	-	\$	820,000	\$	820,000	\$	820,000	\$	820,000
	\$	820,000	\$		\$		\$		\$	-
	\$	820,000	\$	820,000	\$	820,000	\$	820,000	\$	820,000
	\$	-	\$	12,615	\$	25,231	\$	37,846	\$	50,462
2%	\$	12,615	\$	12,615	\$	12,615	\$	12,615	\$	12,615
	\$	12,615	\$	25,231	\$	37,846	\$	50,462	\$	63,077
	\$	-	\$	807,385	\$	794,769	\$	782,154	\$	769,538
	\$	807,385	\$	794,769	\$	782,154	\$	769,538	\$	756,923
	\$	403,692	\$	801,077	\$	788,462	\$	775,846	\$	763,231

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ -	\$ 754,400	\$ 694,048	\$ 638,524	\$ 587,442
	\$ 820,000	\$ -	\$ -	\$ -	\$ -
	\$ 820,000	\$ 754,400	\$ 694,048	\$ 638,524	\$ 587,442
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 820,000	\$ 754,400	\$ 694,048	\$ 638,524	\$ 587,442
47					

·					
	\$ 65,600	\$ 60,352	\$ 55,524	\$ 51,082	\$ 46,995
	\$ 754,400	\$ 694,048	\$ 638,524	\$ 587,442	\$ 540,447

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 19 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project King Street 44kV Cable Re-build

Asset Component

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

	2	2012	2	2013		2014	2	2015		2016
	Fore	ecasted	Fore	ecasted	For	recasted	Fore	ecasted	For	ecasted
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	1.1	\$	1.1	\$	1.1	\$	1.1	\$	
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
0%	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
0					
0%					
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 20 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project King Street 44kV Cable Re-build

Asset Component

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

	2	2012	2	2013		2014	2	2015		2016
	Fore	ecasted	Fore	ecasted	For	recasted	Fore	ecasted	For	ecasted
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	1.1	\$	1.1	\$	1.1	\$	1.1	\$	
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
0%	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
0					
0%					
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$	\$ -	\$ -	\$ -	\$ -

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 21 of 38



**Kingston Hydro Corporation** 

Using the pull-down menu below, please identify what year of the IRM cycle you are in. 1st year of IRM cycle

Name or General Description of Project

**Transformer Vault 11** 

#### **Details of Project**

Per attached Summary

		Depreciation			
Asset Component	Capital Cost	Rate	CCA Class	CCA Rate	
1 Cable Chambers	250,000	2%	47	8%	
2 Transformers	40,000	3%	47	8%	
3 Switches	135,000	3%	47	8%	
4 Cable	90,000	3%	47	8%	
5					
	2012	2013	2014	2015	2016
Closing Net Fixed Asset	503,583	492,167	480,750	469,333	457,917
Amortization Expense	11,417	11,417	11,417	11,417	11,417
CCA	41,200	37,904	34,872	32,082	29,515

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 22 of 38



Ontario Energy Board Incremental Capital Project Summary

#### **Kingston Hydro Corporation**

Name or General Description of Project Transformer Vault 11

Asset Component

Cable Chambers

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

			2012		2013		2014		2015		2016
		Fo	precasted								
		\$	-	\$	250,000	\$	250,000	\$	250,000	\$	250,000
		\$	250,000	\$	1.1	\$	1.1	\$	1.1	\$	
		\$	250,000	\$	250,000	\$	250,000	\$	250,000	\$	250,000
		\$		\$	4,167	\$	8,333	\$	12,500	\$	16,667
2	2%	\$	4,167	\$	4,167	\$	4,167	\$	4,167	\$	4,167
		\$	4,167	\$	8,333	\$	12,500	\$	16,667	\$	20,833
		\$	-	\$	245,833	\$	241,667	\$	237,500	\$	233,333
		\$	245,833	\$	241,667	\$	237,500	\$	233,333	\$	229,167
		\$	122,917	\$	243,750	\$	239,583	\$	235,417	\$	231,250

### For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ -	\$ 230,000	\$ 211,600	\$ 194,672	\$ 179,098
	\$ 250,000	\$ -	\$ -	\$ -	\$ -
	\$ 250,000	\$ 230,000	\$ 211,600	\$ 194,672	\$ 179,098
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 250,000	\$ 230,000	\$ 211,600	\$ 194,672	\$ 179,098
47					

\$ 20,000	\$ 18,400	\$ 16,928	\$ 15,574	\$ 14,328
\$ 230,000	\$ 211,600	\$ 194,672	\$ 179,098	\$ 164,770

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 23 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project Transformer Vault 11

Asset Component Transformers

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

		2012		2013		2014		2015		2016
	Fo	recasted								
	\$	-	\$	40,000	\$	40,000	\$	40,000	\$	40,000
	\$	40,000	\$		\$		\$		\$	
	\$	40,000	\$	40,000	\$	40,000	\$	40,000	\$	40,000
	\$	-	\$	1,143	\$	2,286	\$	3,429	\$	4,571
3%	\$	1,143	\$	1,143	\$	1,143	\$	1,143	\$	1,143
	\$	1,143	\$	2,286	\$	3,429	\$	4,571	\$	5,714
	\$	-	\$	38,857	\$	37,714	\$	36,571	\$	35,429
	\$	38,857	\$	37,714	\$	36,571	\$	35,429	\$	34,286
	\$	19,429	\$	38,286	\$	37,143	\$	36,000	\$	34,857

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

\$	-	\$ 36,800	\$ 33,856	\$ 31,148	\$ 28,656
\$	40,000	\$ -	\$ -	\$ -	\$ -
\$	40,000	\$ 36,800	\$ 33,856	\$ 31,148	\$ 28,656
\$	-	\$ -	\$ -	\$ -	\$ -
\$	40,000	\$ 36,800	\$ 33,856	\$ 31,148	\$ 28,656

\$ 3,200	\$ 2,944	\$ 2,708	\$ 2,492	\$ 2,292
\$ 36,800	\$ 33,856	\$ 31,148	\$ 28,656	\$ 26,363

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 24 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project Transformer Vault 11

Asset Component Switches

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

		2012		2013		2014		2015	2016	
	Fo	precasted	Forecasted		Fc	Forecasted		Forecasted		precasted
	\$		\$	135,000	\$	135,000	\$	135,000	\$	135,000
	\$	135,000	\$		\$	-	\$	-	\$	-
	\$	135,000	\$	135,000	\$	135,000	\$	135,000	\$	135,000
	\$	-	\$	3,857	\$	7,714	\$	11,571	\$	15,429
3%	\$	3,857	\$	3,857	\$	3,857	\$	3,857	\$	3,857
	\$	3,857	\$	7,714	\$	11,571	\$	15,429	\$	19,286
	\$	-	\$	131,143	\$	127,286	\$	123,429	\$	119,571
	\$	131,143	\$	127,286	\$	123,429	\$	119,571	\$	115,714
	\$	65,571	\$	129,214	\$	125,357	\$	121,500	\$	117,643

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ -	\$ 124,200	\$ 114,264	\$ 105,123	\$ 96,713
	\$ 135,000	\$ -	\$ -	\$ -	\$ -
	\$ 135,000	\$ 124,200	\$ 114,264	\$ 105,123	\$ 96,713
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 135,000	\$ 124,200	\$ 114,264	\$ 105,123	\$ 96,713
47					

υ.					
	\$ 10,800	\$ 9,936	\$ 9,141	\$ 8,410	\$ 7,737
	\$ 124,200	\$ 114,264	\$ 105,123	\$ 96,713	\$ 88,976

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 25 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project Transformer Vault 11

Asset Component

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

	2012		2013			2014		2015		2016
	Forecasted		Forecasted		Forecasted		Forecasted		Forecasted	
	\$	-	\$	90,000	\$	90,000	\$	90,000	\$	90,000
	\$	90,000	\$		\$	-	\$	-	\$	-
	\$	90,000	\$	90,000	\$	90,000	\$	90,000	\$	90,000
	\$	-	\$	2,250	\$	4,500	\$	6,750	\$	9,000
3%	\$	2,250	\$	2,250	\$	2,250	\$	2,250	\$	2,250
	\$	2,250	\$	4,500	\$	6,750	\$	9,000	\$	11,250
	\$	-	\$	87,750	\$	85,500	\$	83,250	\$	81,000
	\$	87,750	\$	85,500	\$	83,250	\$	81,000	\$	78,750
	\$	43,875	\$	86,625	\$	84,375	\$	82,125	\$	79,875

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ -	\$ 82,800	\$ 76,176	\$ 70,082	\$ 64,475
	\$ 90,000	\$ -	\$ -	\$ -	\$ -
	\$ 90,000	\$ 82,800	\$ 76,176	\$ 70,082	\$ 64,475
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 90,000	\$ 82,800	\$ 76,176	\$ 70,082	\$ 64,475
47					

_					
\$	7,200	\$ 6,624	\$ 6,094	\$ 5,607	\$ 5,158
\$	82,800	\$ 76,176	\$ 70,082	\$ 64,475	\$ 59,317

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 26 of 38



Ontario Energy Board Incremental Capital Project Summary

2012

2013

**Kingston Hydro Corporation** 

Name or General Description of Project Transformer Vault 11

Asset Component

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

	Forec	asted	Fore	casted	For	ecasted	Fore	ecasted	For	ecasted
	\$	-	\$		\$	-	\$	-	\$	-
	\$	14	\$		\$	-	\$	1.0	\$	
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	
0%	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$		\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-

2014

2015

2016

### For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
0					
0%					
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$	\$ -	\$ -	\$ -	\$ -
Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 27 of 38



**Kingston Hydro Corporation** 

Using the pull-down menu below, please identify what year of the IRM cycle you are in. 1st year of IRM cycle

Name or General Description of Project

Municipal Substation # 15

#### **Details of Project**

Per attached Summary

		Depreciation			
Asset Component	Capital Cost	Rate	CCA Class	CCA Rate	
1 Structure	20,000	2%	3	5%	
2 Switchgear	540,000	3%	47	8%	
3					
4					
5					
	2012	2013	2014	2015	201
Closing Net Fixed Asset	546,100	532,200	518,300	504,400	490,500
Amortization Expense	13,900	13,900	13,900	13,900	13,900
CCA	44,200	40,694	37,467	34,497	31,763

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 28 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project Municipal Substation # 15

Asset Component
Structure

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

		2012		2013		2014		2015		2016
	Fo	recasted	Forecasted		Fo	Forecasted		Forecasted		recasted
	\$	-	\$	20,000	\$	20,000	\$	20,000	\$	20,000
	\$ 20,000		\$	-	\$	-	\$	-	\$	-
	\$ 20,000		\$	20,000	\$	20,000	\$	20,000	\$	20,000
	+ ==,===									
	\$	-	\$	400	\$	800	\$	1,200	\$	1,600
2%	\$	400	\$	400	\$	400	\$	400	\$	400
	\$	400	\$	800	\$	1,200	\$	1,600	\$	2,000
	\$	-	\$	19,600	\$	19,200	\$	18,800	\$	18,400
	\$	19,600	\$	19,200	\$	18,800	\$	18,400	\$	18,000
	\$	9,800	\$	19,400	\$	19,000	\$	18,600	\$	18,200

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

\$	-	\$ 19,000	\$ 18,050	\$ 17,148	\$ 16,290
\$	20,000	\$ -	\$ -	\$ -	\$ -
\$	20,000	\$ 19,000	\$ 18,050	\$ 17,148	\$ 16,290
\$	-	\$ -	\$ -	\$ -	\$ -
\$	20,000	\$ 19,000	\$ 18,050	\$ 17,148	\$ 16,290

\$ 1,000	\$ 950	\$ 903	\$ 857	\$ 815
\$ 19,000	\$ 18,050	\$ 17,148	\$ 16,290	\$ 15,476

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 29 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project Municipal Substation # 15

Asset Component
Switchgear

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

		2012		2013		2014		2015		2016
	Fo	precasted	Fo	precasted	Fo	precasted	Fo	precasted	Fo	precasted
	\$		\$	540,000	\$	540,000	\$	540,000	\$	540,000
	\$ 540,000 \$ 540,000		\$		\$		\$		\$	-
	\$	540,000	\$	540,000	\$	540,000	\$	540,000	\$	540,000
	+ • • • • • • • • • • • • • • • • • • •									
	\$	-	\$	13,500	\$	27,000	\$	40,500	\$	54,000
3%	\$	13,500	\$	13,500	\$	13,500	\$	13,500	\$	13,500
	\$	13,500	\$	27,000	\$	40,500	\$	54,000	\$	67,500
	\$	-	\$	526,500	\$	513,000	\$	499,500	\$	486,000
	\$	526,500	\$	513,000	\$	499,500	\$	486,000	\$	472,500
	\$	263,250	\$	519,750	\$	506,250	\$	492,750	\$	479,250

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ -	\$ 496,800	\$ 457,056	\$ 420,492	\$ 386,852
	\$ 540,000	\$ -	\$ -	\$ -	\$ -
	\$ 540,000	\$ 496,800	\$ 457,056	\$ 420,492	\$ 386,852
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 540,000	\$ 496,800	\$ 457,056	\$ 420,492	\$ 386,852
47					

·						
\$	5	43,200	\$ 39,744	\$ 36,564	\$ 33,639	\$ 30,948
\$	5	496,800	\$ 457,056	\$ 420,492	\$ 386,852	\$ 355,904

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 30 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project Municipal Substation # 15

Asset Component

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

		2012	1	2013		2014		2015		2016
	For	ecasted	For	ecasted	Fo	recasted	For	ecasted	For	ecasted
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$		\$		\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
0%	\$	-	\$		\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
0					
0%					
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 31 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project Municipal Substation # 15

Asset Component

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

	2	012	2	2013		2014	2	2015		2016
	Fore	ecasted	Fore	ecasted	For	recasted	Fore	ecasted	For	ecasted
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$		\$		\$	1.1	\$		\$	
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
0%	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$		\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
0					
0%					
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 32 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project Municipal Substation # 15

Asset Component

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

		2012	1	2013		2014		2015		2016
	For	ecasted	For	ecasted	Fo	recasted	For	ecasted	For	ecasted
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$		\$		\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
0%	\$	-	\$		\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-
	\$	-	\$	-	\$	-	\$	-	\$	-

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ 	\$	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -
0					
0%					
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 	\$ -	\$ -	\$ -	\$ -

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 33 of 38



**Kingston Hydro Corporation** 

Using the pull-down menu below, please identify what year of the IRM cycle you are in. 1st year of IRM cycle

Name or General Description of Project

**Transformer Vault 6** 

#### **Details of Project**

Per attached Summary

		Depreciation			
Asset Component	Capital Cost	Rate	CCA Class	CCA Rate	
1 Duct banks	65,000	2%	47	8%	
2 Switches	135,000	3%	47	8%	
3 Cable Chambers	250,000	2%	47	8%	
4 Transformers	40,000	3%	47	8%	
5 Cable	75,000	3%	47	8%	
	2012	2013	2014	2015	2016
Closing Net Fixed Asset	552,777	540,553	528,330	516,106	503,883
Amortization Expense	12,223	12,223	12,223	12,223	12,223
CCA	45,200	41,584	38,257	35,197	32,381

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 34 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project Transformer Vault 6

Asset Component
Duct banks

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

		2012		2013		2014		2015		2016
	Fo	recasted								
	\$	-	\$	65,000	\$	65,000	\$	65,000	\$	65,000
	\$	65,000	\$	-	\$	-	\$	-	\$	-
	\$	65,000	\$	65,000	\$	65,000	\$	65,000	\$	65,000
	\$	-	\$	1,182	\$	2,364	\$	3,545	\$	4,727
2%	\$	1,182	\$	1,182	\$	1,182	\$	1,182	\$	1,182
	\$	1,182	\$	2,364	\$	3,545	\$	4,727	\$	5,909
	\$	-	\$	63,818	\$	62,636	\$	61,455	\$	60,273
	\$	63,818	\$	62,636	\$	61,455	\$	60,273	\$	59,091
	\$	31,909	\$	63,227	\$	62,045	\$	60,864	\$	59,682

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ -	\$ 59,800	\$ 55,016	\$ 50,615	\$ 46,566
	\$ 65,000	\$ -	\$ -	\$ -	\$ -
	\$ 65,000	\$ 59,800	\$ 55,016	\$ 50,615	\$ 46,566
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 65,000	\$ 59,800	\$ 55,016	\$ 50,615	\$ 46,566
47					

\$ 5,200	\$ 4,784	\$ 4,401	\$ 4,049	\$ 3,725
\$ 59,800	\$ 55,016	\$ 50,615	\$ 46,566	\$ 42,840

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 35 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project Transformer Vault 6

Asset Component
Switches

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

		2012		2013		2014		2015		2016
	Fo	precasted	Fc	recasted	Fc	recasted	Fo	precasted	Fc	precasted
	\$	-	\$	135,000	\$	135,000	\$	135,000	\$	135,000
	\$	135,000	\$		\$		\$		\$	-
	\$	135,000	\$	135,000	\$	135,000	\$	135,000	\$	135,000
	\$	-	\$	3,857	\$	7,714	\$	11,571	\$	15,429
3%	\$	3,857	\$	3,857	\$	3,857	\$	3,857	\$	3,857
	\$	3,857	\$	7,714	\$	11,571	\$	15,429	\$	19,286
	\$	-	\$	131,143	\$	127,286	\$	123,429	\$	119,571
	\$	131,143	\$	127,286	\$	123,429	\$	119,571	\$	115,714
	\$	65,571	\$	129,214	\$	125,357	\$	121,500	\$	117,643

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ -	\$ 124,200	\$ 114,264	\$ 105,123	\$ 96,713
	\$ 135,000	\$ -	\$ -	\$ -	\$ -
	\$ 135,000	\$ 124,200	\$ 114,264	\$ 105,123	\$ 96,713
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 135,000	\$ 124,200	\$ 114,264	\$ 105,123	\$ 96,713
47					

υ.					
	\$ 10,800	\$ 9,936	\$ 9,141	\$ 8,410	\$ 7,737
	\$ 124,200	\$ 114,264	\$ 105,123	\$ 96,713	\$ 88,976

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 36 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project Transformer Vault 6

Asset Component Cable Chambers

Average Net Fixed Assets

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

		2012		2013		2014		2015		2016
	Fo	precasted	Fo	precasted	Fc	precasted	Fo	precasted	Fo	precasted
	\$	-	\$	250,000	\$	250,000	\$	250,000	\$	250,000
	\$	250,000	\$		\$		\$		\$	-
	\$	250,000	\$	250,000	\$	250,000	\$	250,000	\$	250,000
	\$	-	\$	4,167	\$	8,333	\$	12,500	\$	16,667
2%	\$	4,167	\$	4,167	\$	4,167	\$	4,167	\$	4,167
	\$	4,167	\$	8,333	\$	12,500	\$	16,667	\$	20,833
	\$	-	\$	245,833	\$	241,667	\$	237,500	\$	233,333
	\$	245,833	\$	241,667	\$	237,500	\$	233,333	\$	229,167
	\$	122,917	\$	243,750	\$	239,583	\$	235,417	\$	231,250

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ -	\$ 230,000	\$ 211,600	\$ 194,672	\$ 179,098
	\$ 250,000	\$ -	\$ -	\$ -	\$ -
	\$ 250,000	\$ 230,000	\$ 211,600	\$ 194,672	\$ 179,098
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 250,000	\$ 230,000	\$ 211,600	\$ 194,672	\$ 179,098
47					

_					
\$	20,000	\$ 18,400	\$ 16,928	\$ 15,574	\$ 14,328
\$	230,000	\$ 211,600	\$ 194,672	\$ 179,098	\$ 164,770

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 37 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project Transformer Vault 6

Asset Component Transformers

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

		2012		2013		2014		2015		2016
	Fo	recasted								
	\$	-	\$	40,000	\$	40,000	\$	40,000	\$	40,000
	\$	40,000	\$		\$		\$		\$	-
	\$	40,000	\$	40,000	\$	40,000	\$	40,000	\$	40,000
	\$	-	\$	1,143	\$	2,286	\$	3,429	\$	4,571
3%	\$	1,143	\$	1,143	\$	1,143	\$	1,143	\$	1,143
	\$	1,143	\$	2,286	\$	3,429	\$	4,571	\$	5,714
	\$	-	\$	38,857	\$	37,714	\$	36,571	\$	35,429
	\$	38,857	\$	37,714	\$	36,571	\$	35,429	\$	34,286
	\$	19,429	\$	38,286	\$	37,143	\$	36,000	\$	34,857

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ -	\$ 36,800	\$ 33,856	\$ 31,148	\$ 28,656
	\$ 40,000	\$ -	\$ -	\$ -	\$ -
	\$ 40,000	\$ 36,800	\$ 33,856	\$ 31,148	\$ 28,656
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 40,000	\$ 36,800	\$ 33,856	\$ 31,148	\$ 28,656
47					

\$ 3,200	\$ 2,944	\$ 2,708	\$ 2,492	\$ 2,292
\$ 36,800	\$ 33,856	\$ 31,148	\$ 28,656	\$ 26,363

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 5 Page 38 of 38



Ontario Energy Board Incremental Capital Project Summary

**Kingston Hydro Corporation** 

Name or General Description of Project Transformer Vault 6

Asset Component

## **Average Net Fixed Assets**

#### **Net Fixed Assets**

Opening Capital Investment Capital Investment Closing Capital Investment

Opening Accumulated Amortization Amortization Closing Accumulated Amortization

Opening Net Fixed Assets Closing Net Fixed Assets Average Net Fixed Assets

	2012			2013		2014		2015		2016
	Fo	recasted	Fo	recasted	Fo	recasted	Fo	recasted	Forecasted	
	\$	-	\$	75,000	\$	75,000	\$	75,000	\$	75,000
	\$	75,000	\$	-	\$	-	\$	-	\$	-
	\$	75,000	\$	75,000	\$	75,000	\$	75,000	\$	75,000
	\$	-	\$	1,875	\$	3,750	\$	5,625	\$	7,500
3%	\$	1,875	\$	1,875	\$	1,875	\$	1,875	\$	1,875
	\$	1,875	\$	3,750	\$	5,625	\$	7,500	\$	9,375
	\$	-	\$	73,125	\$	71,250	\$	69,375	\$	67,500
	\$	73,125	\$	71,250	\$	69,375	\$	67,500	\$	65,625
	\$	36,563	\$	72,188	\$	70,313	\$	68,438	\$	66,563

## For PILs Calculation

#### UCC

Opening UCC Capital Additions UCC Before Half Year Rule Half Year Rule (1/2 Additions - Disposals) Reduced UCC CCA Rate Class CCA Rate CCA Closing UCC 20122013201420152016ForecastedForecastedForecastedForecastedForecasted

	\$ -	\$ 69,000	\$ 63,480	\$ 58,402	\$ 53,729
	\$ 75,000	\$ -	\$ -	\$ -	\$ -
	\$ 75,000	\$ 69,000	\$ 63,480	\$ 58,402	\$ 53,729
	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 75,000	\$ 69,000	\$ 63,480	\$ 58,402	\$ 53,729
47					

\$ 6,000	\$ 5,520	\$ 5,078	\$ 4,672	\$ 4,298
\$ 69,000	\$ 63,480	\$ 58,402	\$ 53,729	\$ 49,431

1

## 2012 INCREMENTAL CAPITAL EXPENDITURES

This section provides details on the 2012 incremental projects totalling \$3.5 million. These
investments support Kingston Hydro's business objectives of prudent and sustainable
investments in:

- public and employee safety;
- business system performance and reliability;
- 7 regulatory compliance;

8 while meeting asset end-of-life replacement and long term planning requirements.

9 Table 1 contains a breakdown of the estimated capital expenditures for the incremental10 capital projects followed by project descriptions.

## 11 Table 1 – Incremental Capital Project Expenditures

2012 Incremental Capital Projects	
King St 44kV Underground Cable Rebuild (M454) <sup>1</sup>	\$ 1,860,000
Transformer Vault (TV6) Rebuild <sup>1</sup>	\$ 565,000
Substation No.15 Circuit Breakers Retrofit <sup>1</sup>	\$ 560,000
Transformer Vault 11 (TV11) Rebuild <sup>1</sup>	\$ 515,000
Total	\$ 3,500,000

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 2 of 20

1	Project: King St 44kV Underground	d Cable	Rebuild	
2	Category: Operations	Driver:	Asset Failure	Capital: \$1,860,000
3	Commencement Date: March 201	2	In-Service Date: June	2012

4

## 5 **Project Description**

6 Kingston Hydro proposes to replace the M454 cable with modern tree retardant cross-linked 7 polyethylene (TR-XLPE) cable in concrete encased ducts to eliminate the combined risk of 8 worker safety in congested electrical manholes, cable failure due to accelerated insulation 9 degradation caused by moisture ingress in the direct buried portions (as well as potential 10 mechanical damage) and sustained outages due to failing splices.

11 The M454 line is a 44kV underground 500MCM Paper Insulated Lead Sheathed Cable 12 (PILC) located southwest of the downtown core that features long direct buried segments in a 13 public park, leaving the cable vulnerable to accelerated insulation deterioration and 14 mechanical damage (see key plan in Figure 1). Most PILC cable failures occur due to 15 mechanical stresses, such as failing joints (splices) or mechanical damage [1]. Currently, 16 there are up to 5 splices existing on this line. The M454 is approximately 1.4km long and is 17 single conductor per cable per duct except for the direct buried portions, which spans 400m. 18 The M454 cable is a priority for replacement due to the number of splices and the criticality of 19 the service provided to Kingston General Hospital (KGH) as the M454 is the normal supply 20 route.

21 The following factors are indicative of the need to replace the M454 cable:

Employee Safety: several electrical manholes on the M454 line are shared with
 embedded customer's 5kV circuits (i.e. Queens University and KGH). Moreover, two
 of Kingston Hydro's own 5kV circuits also share manhole space with the M454 cable.
 This congestion creates unsafe working conditions for staff when working on 5kV
 circuits, compounded by the presence of water at manholes (see Figure 2). The
 proposed rebuild would relocate the M454 by installing new 44kV concrete-encased

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 3 of 20

TR-XLPE cables passing through new, dedicated manholes, relieving the congestion
 in the existing manholes, and improving worker safety.

Condition: Oil leaks from 44kV PILC splice on M454 as well as neighbouring 5kV circuits have been periodically detected at electrical manholes during inspections (refer to Figure 3). This has become an increased concern for Kingston Hydro due to the environmental issues associated with oil leaks. Although these leaks are promptly repaired, specialized contractors have to be secured to effect repairs at an increased s cost to Kingston Hydro.

9 Criticality: the M454 normally supplies KGH and the Queen's-owned 15MW natural • 10 gas cogeneration (cogen) plant, to Frontenac TS. Kingston Hydro is fed by two 11 transmission stations (Gardiner TS in the West and Frontenac TS in the North East). 12 The Demand Response 3 program, involving Queen's University, Utilities Kingston 13 and the IESO stipulates that the M454 cable be available in the event that the hospital 14 requires backup power provided by the cogen. The M454 is the only acceptable power route due to the availability of communications-assisted protection at Frontenac 15 16 TS for the cogen plant.

17 Operability: As Kingston Hydro begins the process of rebuilding Substation No.1, the • 18 normal supply route from Frontenac TS to the downtown core/KGH/Queens/Hotel 19 Dieu Hospital will shift to Gardiner TS. Given the current condition of the M454 line, 20 power quality given this longer supply route is a concern. Better quality power will be 21 achieved by reducing the risk of low-voltage issues, and potential equipment damage 22 to sensitive hospital equipment during the multi-year planned replacement work of 23 Substation No.1 starting in 2013. That is, replacement of the M454 cable would 24 compensate for the voltage drop on the longer, alternate route from Gardiner TS to 25 KGH, Hotel Dieu and the downtown commercial core by increasing the current 26 carrying capacity from 500MCM PILC to 1000MCM TR-XLPE.

Maintainability: Kingston Hydro staff are experienced in performing transition splices
 between TR-XLPE and PILC at the 5kV voltage level; however, they are not equipped

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 4 of 20

with the experience or tools to perform splices between 44kV PILC and 1000MCM
 46kV rated TR-XLPE, or 46kV PILC-to-PILC splices. This work requires specialized
 expertise, and in the event of full mechanical failure of a splice, would result in an
 extended outage, on the order of 1-2 weeks, to bring in external services.

Because failure of major equipment, such as 44kV PILC cable, typically leads to sustained
interruption of service (in this case the inoperability of the cogen impacting our commitment to
KGH and the DR3 program) and high replacement cost, Kingston Hydro believes that it would
be more cost-effective to install concrete encased TR-XLPE, rather than reinvesting further in
the existing PILC M454 and M455 sections, starting with M454 in 2012.

## 10 Cost Breakdown

13	Total	\$1,860,000
12	Materials and Contracts	<u>\$1,800,000</u>
11	Labour and Vehicles	\$60,000

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 5 of 20



2 Figure 1 – Key Plan of Existing 44kV PILC Cables and Existing Electric Manholes

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 6 of 20



2 Figure 2 – Congested Manhole – 3 x 5kV Circuits and 44kV circuit M454

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 7 of 20



1

2 Figure 3 – Leaking Oil from 5kV PILC Splice at EM54

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 8 of 20



- 1
- 2 Figure 4 44kV PILC Circuit M454 Oil Leakage and Corrosion at Mechanical Pressure
- 3 **Points (Manhole Duct Entrances) at EM54**

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 9 of 20



2 Figure 5 – Patch Repair of a 44kV Splice for Cable M454 in EM54

3

- 4 [1] Diagnosis on Oil-Paper Insulation with the method of the Return Voltage Measurement Oil
- 5 Paper Insulation, D. Kamenka and M. Beigert.
- 6 [2] 44kV PILC Test Report for Utilities Kingston, H. Oetjen, HDW Electronics, December7 2005.

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 10 of 20

#### 1 **Project:** Transformer Vault (TV6) Rebuild

2 **Category:** Operations **Driver:** Asset Failure

Capital: \$565,000

3 **Commencement Date:** March 2012 **In-Service Date:** June 2012.

4

## 5 **Project Description**

6 TV6 is located on the corner of Princess St. and Bagot St. and supplies 120/208V to local 7 retail businesses. TV6 has been identified by staff as the top priority for vault replacement 8 due to significant structural and electrical equipment degradation and unsafe working 9 conditions as supported by an external December 2010 Structural Assessment. Its location at 10 the corner of one of the busiest downtown intersections, and outside a store front, also leads 11 to commercial, pedestrian and vehicular disruption during maintenance or inspection 12 activities.

- 13 A structural engineer was retained for a structural assessment of several vaults and • 14 manholes in December 2010 and found significant deterioration in the walls on the 15 north and west sides in TV6. The north wall was of significant concern because it is 16 adjacent to the foundation wall of a customer's building. If structural failure, i.e. 17 collapse, of the north wall were to occur, the customer's foundation wall would also 18 likely collapse. Consequently, rebuilding the vault or significant remediation was 19 recommended. Due to vault location and access issues, the more cost effective option 20 was found to be relocation and a rebuild of the entire vault on Bagot St. around the 21 corner just north of TV6's current location.
- Electrically, TV6 features a technologically obsolete oil switch, which is inoperable
   when live, a transformer at end-of-life and several 5kV PILC cable splices. The oil
   switches in Kingston Hydro's underground distribution system, originally installed
   approximately 40 years ago, are unsafe to operate under load due to slow-moving
   deteriorated mechanical contacts in the switch tank which are prone to arcing when
   operated under load. The flash hazard for workers operating these switches is

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 11 of 20

exacerbated by the confined working conditions in the vault. This presents a worker 1 2 safety concern for Kingston Hydro. Current safe work practice requires Kingston 3 Hydro staff to de-energize and ground the switches (a 2 to 3 hour process) before 4 operating them, resulting in extended outages and contributing to increased SAIDI 5 and SAIFI (system performance and reliability indicators which are considered 6 "worse" as the values increase). This causes extended outages for customers that 7 would not occur with modern equipment. In response to this condition, Kingston 8 Hydro's current standard is to replace oil switches with a Vista Gear switch, which 9 uses modern vacuum and SF6 interrupting technology and is rated to operate under 10 load thus greatly reducing arc flash risk, improving worker safety, and reducing 11 outage duration, improving system reliability and performance.

Therefore, at TV6, Kingston Hydro plans to replace the transformer and the oil switch with a SF6 Vista Gear switch, the end-of-life transformer as well as primary cable (from PILC to TR-XLPE). The cable replacement will extend to TV7 and requires coordination with TV7 electric upgrades discussed in the 2012 Capital Plan project descriptions included in this submission.

#### 16 Cost Breakdown

Labour and	Vehicles		\$75,000
	Labour and	Labour and Vehicles	Labour and Vehicles

- 19 Total.....\$565,000

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 12 of 20



1

2 Figure 6 – TV6 Corroded Beams



3

4 Figure 7 – TV6 Corroded Wall Reinforcement

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 13 of 20



1

2 Figure 8 – TV6 End-of-Life Submersible Transformer

3

4



5 Figure 9 – TV6 End-of-Life Oil Switch

1	Project: Substation No.15 Circuit B	reakers Retrofit	
2	Category: Operations	Driver: Asset Failu	re <b>Capital:</b> \$560,000
3	Commencement Date: January 20	12 In-Service	Date: September 2012

4

#### 5 **Project Description**

6 MS#15 is located on the corner of Esdon Street and Dauphin Avenue in the North East 7 section of Central Kingston and serves primarily residential load including several apartment 8 buildings as well as a French Language primary school with a total peak load of 9 approximately 2.5MVA. This project involves retrofitting (replacing) 5kV circuit breakers and 10 relocating the battery charger and SCADA equipment to a separate control hut enclosure with 11 improved insulation, ventilation and cooling.

The breaker's mechanical operating mechanism has been deemed unreliable by the manufacturer. Kingston Hydro was advised by the breaker manufacturer in Fall 2010 that the 5kV breakers at this substation were obsolete and not repairable. A failure of this mechanism would cause the entire breaker to fail to operate, and worst case, remain closed into an electrical fault, causing worker injury as well as significant utility and customer equipment damage.

The non-insulated and poorly ventilated walk-in metalclad enclosure is also prone to 18 19 overheating during the summer months which has led to premature failure of the SCADA 20 electronics currently located inside causing difficulty for system operators to monitor and 21 maintain service. All solid-state (vintage electronic) protection relays at this substation will be 22 replaced with modern microprocessor-based protection relays and SCADA communication 23 equipment, facilitating Kingston Hydro's system wide replacement of the obsolete SCADA 24 Remote Telemetry Units (RTU) hardware with modern SCADA infrastructure that will 25 increase system operator visibility and control thereby improving reliability and performance 26 as well as providing technical reports to engineering staff for long term asset management.

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 15 of 20

Properly functioning substation circuit breakers is key to ensuring worker and equipment safety at the station, customer equipment protection and maintaining system performance reliability (by detecting and clearing faults); therefore, Kingston Hydro considers replacement of MS#15's mechanically deficient 5kV switchgear a prudent course of action. Refer to Figure 10 for a photo capturing the mechanical deficiencies in MS#15.

6 The scope of work at MS#15 is similar to the MS#3 substation circuit breaker retrofit project 7 submitted in Kingston Hydro's 2011 COS Rate Application (file #EB-2010-0136). For further 8 detail on the particularities of the circuit breaker mechanism failure issues, the reader is 9 referred to Appendix B "KH-EPRInterrogatoryResponse" which contains a detailed response 10 provided by Kingston Hydro to an interrogatory initiated by the Energy Probe Research 11 Foundation.

## 12 Cost Breakdown

15	Total	\$560,000
14	Materials and Contracts	<u>\$530,000</u>
13	Labour and Vehicles	\$30,000

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 16 of 20



- 1
- 2 Figure 10 MS#15 Circuit Breaker Failed Breaker Mechanical Operating Mechanism

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 17 of 20

1	Project: Transformer Vault 11 (TV	11) Rebu	lild	
2	Category: Operations	Driver:	Inspection	Capital: \$515,000
3	Commencement Date: March 20	12	In-Service Date: June	2012

#### 4 **Project Description**

5 TV11 is located at the corner of King Street East and Clarence Street in downtown Kingston 6 and contains an end-of-life 500kVA transformer, an end-of-life oil switch (which is inoperable 7 when live) and a load break centre. The vault is located under the sidewalk with one end 8 towards the intersection and the other extending under the sidewalk along King St. The vault 9 houses several primary (5kV) cables supplying local businesses including two hotels, a 10 marina and a restaurant.

11 A structural assessment performed in December 2010 (refer to Appendix A "2010 Structural 12 Assessment of UK Vaults and Manholes\_Dec2010") found that TV11's roof slabs and beams 13 are significantly deteriorated and will require replacement. However, due to electrical worker 14 safety requirements, to perform any structural work all primary voltage cables must be 15 isolated and de-energized. Since TV11 houses several PILC primary cables, this safety 16 requirement includes shutting down even those loads that can be backed up due to the fact 17 that the alternate 5kV supply cable is also located in TV11. Thus, any civil remediation work 18 at this vault will lead to extended outages on the order of a week, resulting in significant 19 financial losses for customers.

Therefore, to minimize the service disruption to a matter of hours rather than days, Kingston Hydro plans to perform the civil and electric upgrade work using a two stage approach consisting of:

- Vault structure rebuild and civil works
- Electrical equipment installation and transfer of primary services.
- As in TV6, TV11 contains an oil switch which was originally installed
   approximately 40 years ago, is unsafe to operate under load and presents a

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 18 of 20

flash hazard for workers operating these switches in the confined working 1 2 conditions in the vault. Current practice requires Kingston Hydro staff to de-3 energize and ground the switches (a 2 to 3 hour process) before operating 4 them, resulting in extended outages and contributing to increased SAIDI and 5 SAIFI (system performance and reliability indicators which are considered 6 "worse" as the values increase). This creates extended outages for our 7 customers that would not occur with more modern equipment. In response to 8 this condition, Kingston Hydro's current standard is to replace oil switches with 9 a Vista Gear switch, which uses modern vacuum and SF6 interrupting 10 technology and is rated to operate under load thus significantly reducing arc 11 flash risk and improving worker safety, and reducing outage duration, 12 improving system performance and reliability.

13 Therefore, Kingston Hydro plans to replace the oil switch in TV11 with a SF6 Vista Gear 14 switch, the end-of-life transformer as well as primary PILC cable with TR-XLPE. Furthermore, 15 because TV11 is currently in a strategic location and is the feed for primary cables to 16 customer vaults TV65. TV66 and TV75. Kingston Hydro plans to decommission the existing 17 vault and convert it into a manhole by replacing the roof slabs, thus providing much needed 18 access for workers to pull cable for future cable upgrades and maintain existing splices. To 19 address the electric upgrades, a new vault structure will be constructed further southwest on 20 King St (away from the intersection) so that a new transformer, switchgear and associated 21 cabling can be installed. Finally, the old electrical equipment will be decommissioned after the 22 transfer of services is complete thus minimizing service interruption.

#### 23 Cost Breakdown

25	Materials and	Contracts	<u>\$465,000</u>
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26 Total.....\$515,000

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 19 of 20



1

2 Figure 11 – TV11 Corroded Beams and Roof Slab Structural Deterioration

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Page 20 of 20



- 1
- 2 Figure 12 TV11 Corroded Beams and 1.5m Shelf



- 3
- 4 Figure 13 TV11 Oil Switch

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Appendix A

# APPENDIX A

# **Electric Utility Vaults and Manholes**

# **Structural Assessment**

## &

# **Temporary Shoring Recommendations**

# **Electrical Utility Vaults and Manholes**

# Structural Assessment & Temporary Shoring Recommendations

Utilities Kingston Project No. UK 10-23

December 16, 2010

RONEY ENGINEERING LIMITED Consulting Structural Engineers

1.	Introduction		
2.	Review of the Vaults and Electrical Manholes		
3.	Governing Structural Design Standards		
4.	Vault Assessment and Shoring Recommendations		
	4.1	Vault TV04	4
	4.2	Vault TV06	5
	4.3	Vault TV07	6
	4.4	Vault TV11	7
	4.5	Vault TV18	8
	4.6	Vault TV37	8
	4.7	Vault TV62	9
5.	Electrical Manholes Assessment and Shoring Recommendations		11
	5.1	Manhole EM207	11
	5.2	Manhole EM211	11
	5.3	Manhole EM213	12
	5.4	Manhole EM214	13
	5.5	Manhole EM215	14
	5.6	Manhole EM261	14
	5.7	Manhole EM262	15

## Appendix

## Photographs

Vault TV04	P1
Vault TV06	P2
Vault TV07	Р3
Vault TV11	P4
Vault TV18	P5
Vault TV37	P6
Vault TV62	P7
Manhole EM207	P8
Manhole EM211	Р9
Manhole EM213	P10, P11, P12
Manhole EM214	P13 & P14
Manhole EM215	P15
Manhole EM261	P16 & P17
Manhole EM262	P18

# 1. INTRODUCTION

In accordance with the terms of reference for the Electrical Utility Vault Structural Assessment and Design project, Roney Engineering Ltd. has carried out an initial assessment of the present physical condition of the vaults identified as TV04, TV06, TV07, TV11, TV18, TV37 and TV62, and the electrical manholes identified as EM207, EM211, EM213, EM214, EM215, EM261, and EM262. The purpose of this assessment is to identify any conditions which may be of structural concern and to recommend temporary shoring requirements where necessary, until such time as the full replacement of the top slabs, and any other remediation, takes place. Since the replacement of the roof slabs will, in many cases, be timed to coincide with other city projects, such as repaving operations, some of these structures may not be outfitted with new roof slabs for some time. This assessment work was carried out on November 29<sup>th</sup> and 30<sup>th</sup>, 2010.

# 2. **REVIEW OF THE VAULTS AND MANHOLES**

The physical condition of vaults TV06, TV07, TV11, TV18, and TV37 was assessed in 2002 by J. T. Watson & Associates (Watson). Roney Engineering Ltd. carried out an on-site review of vaults TV06, TV07, TV11, and TV18 in late October and early November of 2008, and temporary shoring measures were recommended in the report that followed. The Watson report, and the previous report by this office, were compared to the recent observations in order to identify the progression of deterioration of the previously assessed structures.

The current Roney Engineering investigation was not intended to duplicate the work of the Watson report and the previous Roney report, and therefore this study should be read together with those documents in order to provide a more complete picture of the condition of these vaults.

In addition to the previously assessed vaults there were a number of vaults assessed for which no previous assessments were provided. None of the electrical manholes were previously assessed.

# 3. GOVERNING STRUCTURAL DESIGN STANDARDS

The structural design of reinforced concrete is most commonly carried out in Canada in accordance with CSA Standard A23.3-04, *"Design of Concrete Structures."* This is the standard referenced in the Ontario Building Code 2006. Additional design, materials and construction criteria specific to precast concrete are specified in CSA Standard A23.4-05, *"Precast Concrete – Materials and Construction."* The temporary shoring shall consist of structural wood framing. The wood shoring shall be designed in accordance with CSA Standard CAN/CSA-O86-01 (including supplement CAN/CSA-O86S1-05), *"Engineering Design in*"
*Wood."* These design standards do not include the specification of the loads to be used in the design of the structures.

The specification of design loads for structures may be found in a number of places. For buildings, the loads are specified in Part 4 of the Ontario Building Code (OBC). The Building Code Act applies to all structures occupying an area greater than 10 square metres, to smaller structures if they contain plumbing, and to a number of other specifically designated structures. Another common source of loadings associated with traffic is CSA Standard CAN/CSA-S6-06, *"Canadian Highway Bridge Design Code"* (CHBDC). It should be noted that the scope of the CHBDC is for the design of highway bridges in Canada. It specifically states, in clause 1.1.1, that it *"is not intended to apply to public utility structures."* Notwithstanding this statement, it is entirely within the prevue of the Utility to specify whatever loads it desires so long as they are not less than those in the OBC.

In the Request for Proposals for this assignment, Utilities Kingston specified that the design take into account the CL-625 Truck Loading requirements of the Canadian Highway Bridge Design Code, CSA Standard CSA-S6-00. Since the latest edition of the standard is CAN/CSA-S6-06, we have assumed that the Utility would prefer the use of the current version.

The CHBDC maximum wheel load is specified as 87.5 kN for single axle loading, reduced by 70% for sidewalks. These loads shall be used in the design of the new replacement vault components, and shall be applied in accordance with the requirements of the governing legislation, the Ontario Building Code (not the CHBDC). The OBC specifies the concentrated design loads to be used for structures placed beneath sidewalks and driveways be distributed over an area of 750mm x 750mm, and that the structures also be designed for a minimum uniformly distributed load of 12 kPa, considered separately from the concentrated loads.

The load carrying capacity of the existing vault roof structures was not analysed.

## 4. VAULT ASSESSMENTS & SHORING RECOMMENDATIONS

## 4.1 Vault TV04

Location:	Beneath the sidewalk adjacent to 275 Bagot Street, and extending slightly beneath the building to the east.
Inside Dimensions:	2.515m x 5.69m x 2.115m high.
Roof:	Cast in place concrete slab supported on perimeter walls and steel beams, with 2 precast concrete removable slabs, each approximately 914mm wide. Main W250 steel beam spans the long direction of the vault (north-south). Smaller W200 beams support the sides of the removable slabs. The main

	concrete roof slabs are generally in good condition; however, the portion of the roof of this structure to the east of the W250 appears to be a concrete slab that was constructed separately from the main roof slab. This latter portion extends beneath the floor of the adjacent building. It is exhibiting some minor spalling and deterioration. The steel beams are not galvanized and all are exhibiting significant signs of corrosion.
Walls:	The north, south and west walls of this vault are composed of concrete. The east wall consists of concrete masonry. All walls were found to be generally in good condition.
Recommendations:	The deterioration of the steel beams has progressed to the point where their capacity has been adversely affected. Temporary shoring of the W250 beam is warranted until permanent repairs may be carried out. Permanent repairs will be challenging since the W250 beam is located beneath, and provides support to, the exterior wall of the adjacent building.

#### 4.2 Vault TV06

Location:	Beneath the sidewalk at the northwest corner of the intersection of Princess Street and Bagot Street.
Inside Dimensions:	2.515m x 7.95m x 2.819m high
Roof:	The roof structure of this vault currently consists of a number of relatively new pre-cast concrete slabs supported on 8 pre- existing steel beams. An older cast-in-place portion of roof remains at the east end of the vault. The newer slabs were installed sometime after the 2008 assessment.
	The existing cast-in-place concrete roof slabs were found to be exhibiting indications of significant cracking and potential corrosion of the embedded reinforcement. This was noted in the previous assessment and temporary shoring was recommended and subsequently installed. The temporary shoring remains in place at this time.
	A number of new galvanized steel beams were in place and were found to be performing well. One pre-existing non- galvanized steel beam remains. It has suffered significant corrosion and is currently shored at this time.

Walls:	A portion of the north wall of this vault was found to be exhibiting significant delamination and spalling. There was evidence of corrosion of the reinforcement within the wall. Its condition has clearly worsened since our 2008 assessment. Spalling was also observed at the upper portion of the west wall.
Recommendations:	The existing temporary shoring within the vault should remain in place until permanent repairs can be undertaken.
	The deterioration of the north wall of this vault is of particular concern, particularly since this wall is immediately adjacent to the foundation wall of the adjacent building. Temporary shoring for the wall is not currently envisioned, though conditions could change if the deterioration of the wall continues, as it inevitably will. The wall of the vault should be periodically inspected until such time as the vault is either remediated or replaced.
Vault TV07	
Location:	West side of Montreal Street just south of Princess Street. Eastern portion of vault extends beneath the roadway.
Inside Dimensions:	2.69m x 6.1m x 3.2m high (varies)
Roof:	The roof structure of this vault consists of three removable concrete slabs with non-removable cast-in-place concrete structure on the north, south and east sides of the removable panels. There are five steel beams supporting the roof slab, three of which are partially encased within the concrete. The configuration of the roof framing is illustrated on drawings TV7-2 and TV7-3, issued previously.
	Widespread, though non-serious, spalling was noted on the underside of the concrete roof slab. Significant spalling and deterioration was observed around the grating opening at the south end of the vault. Localized areas of rust staining were observed, suggesting the presence of corroding steel within. Cracking and evidence of delamination was observed at the side of the north-south concrete-encased steel beam. This suggests that the hidden portions of the beam are suffering from corrosion. Significant corrosion was also noted on the exposed regions of the steel beams. All but one of the steel beams have been shored, as per the February 2009 recommendations. However, the remaining unshored beam

	has now deteriorated to the point where it, too, will require temporary shoring.
Walls:	The walls of the vault were found to be generally in good condition. Some minor spalling was noted, though none was considered structurally serious at this time.
Recommendations:	Temporary shoring is recommended to provide additional support to the one currently unshored steel beam. All other shoring shall remain in place.
Vault TV11	
Location:	Beneath the sidewalk at the south-east corner of the intersection of King Street and Clarence.
Inside Dimensions:	2.44m x 8.02m x 2.87m high (1.7m high at north end)
Roof:	The roof structure of the vault consists of six removable concrete slabs, each measuring approximately 813mm wide by2718mm, a central non-removeable slab approximately 1.6m in width, and a cast in place portion at the north end, approximately 1.525m wide. The roof slabs are supported on eight steel beams spanning in the east-west direction, and one header beam adjacent to the access opening. Four of the beams are galvanized.
	The existing concrete roof slabs were found to be exhibiting significant indications of cracking, spalling and the onset of corrosion of the embedded reinforcement. The degree of deterioration noted during our cursory review is becoming of serious concern.
	The non-galvalized steel beams that support the slabs were found to be suffering from widespread corrosion, though in most cases the corrosion had not yet reached the point where the structural integrity has been significantly degraded. There was, however, significant deterioration near the ends of the beams at three locations that will require attention. In 2009, shoring was recommended for each of these locations; however, only one location is currently shored.
Walls:	No indication of significant structural distress was noted.
Recommendations:	Provide the additional shoring as previously recommended.

The existing roof slabs require replacement since their structural integrity can no longer be assured. Until the slabs are replaced, we recommend that temporary bollards be provided to prevent heavy vehicles from driving over the vault.

## 4.5 Vault TV18

Location:	Beneath the sidewalk at the east side of Ontario Street, just north of Brock.
Inside Dimensions:	2.69m x 3.12m x 2.97m high
Roof:	The roof structure of the vault consists of six removable concrete slabs and a central non-removable slab containing the access opening. The roof slabs are supported on seven steel beams spanning in the east-west direction, and one header beam adjacent to the access opening.
	The existing concrete roof slabs were found to be exhibiting indications of moderate cracking and evidence of localized corrosion of embedded steel elements. Evidence of recent flexural cracking was noted at the underside of the slabs. One of the slabs was spalled on the underside, revealing the reinforcement within. The degree of deterioration noted during our cursory review is becoming of concern.
	The steel beams that support the slabs were found to be suffering from significant surface corrosion. Severe corrosion of the flanges of the central beam at its west end has compromised the structural integrity of this beam. Temporary shoring is currently in place to address the concerns related to the steel beams.
Walls:	No indication of significant structural distress was noted.
Recommendations:	The roof structure of this vault should be removed and replaced. Until the slabs are replaced, we recommend that temporary bollards be provided to prevent heavy vehicles from driving over the vault. The temporary shoring should also remain in place until permanent repairs are carried out.
Vault TV37	
Location:	Beneath the side walk on the west side of Drayton Street,

near Princess Street.

Inside Dimensions:	2.45m x 6.16m x 2.63m high
Roof:	The roof slab consists of a 140mm thick cast-in-place concrete slab with 4 precast concrete removable slabs. The roof structure consists of a one-way slab system supported on 6 non-galvanized steel beams. The beams span in the east- west direction.
	The concrete slabs were found to be generally in good condition. Spalling at the underside of the cast-in-place slab was noted in a number of locations, exposing the reinforcement. The reinforcement clearly lacks proper concrete cover at these locations and is exhibiting minor corrosion.
	The steel beams are all exhibiting surface corrosion. The corrosion has progressed to the point where temporary shoring is warranted at 5 of the 6 beams.
	A stop sign had been installed at the south-east corner of the vault. The post for the sign has penetrated the roof of the vault.
Walls:	No indication of significant structural distress was noted.
Recommendations:	Temporary shoring should be provided for 5 of the deteriorated steel beams. Since the concrete slabs are generally in good condition, with the exception of some spalling where insufficient cover was provided for the reinforcement, we recommend that localized repairs to the spalled areas be carried out to preserve the integrity of the slabs.

## 4.7 Vault TV62

Location:	Just outside of east wall of Stages nightclub, 393 Princess Street.
Inside Dimensions:	1.695m x 5.537m x 2.44m high.
Roof:	The roof structure of this vault consists of a 114mm concrete slab placed over 38mm non-composite steel deck supported on three S130 steel beams, spanning in the east-west direction.

The top surface of the vault slab appears to have been retopped recently. The topping appeared to be in good physical condition. The steel deck at the underside of the roof slab was found to be exhibiting significant corrosion and was entirely missing in some areas, exposing the underside of the concrete.

Where non-composite steel deck is present at the underside of a concrete slab, it may either be acting simply as a form for a self-supporting reinforced concrete slab, or it may be serving as the primary means of support for the nonstructural concrete topping. We were not able to determine which is the case here, though we suspect the former. We did not find any significant evidence of corrosion of embedded reinforcement. If the slab is of self supporting reinforced concrete construction then the deterioration of the steel deck is of little consequence, structurally. However if the slab is relying on the deck for support then the current deterioration of the deck is such that the top slab would not be considered to be in a safe condition.

The steel beams were exhibiting minor surface corrosion, but were generally found to be in acceptable condition.

- Walls: The north, south and east walls of the vault are of cast-inplace concrete construction. The west wall is the original foundation wall of the adjacent building. It consists of hollow clay tile. No indication of significant structural distress was noted.
- Recommendations: We recommend that the owner of the vault be asked to provide structural drawings of the vault roof slab's construction in order to determine the purpose of the steel deck. Following assessment of that documentation the structural implications of the deterioration may be determined. If no documentation is available, we recommend that further investigation be carried out to determine the size and placement of any reinforcement that may be present within the roof slab.

## 5. ELECTRICAL MANHOLE ASSESSMENTS & SHORING RECOMMENDATIONS

## 5.1 Manhole EM207

Location:	Beneath the sidewalk at the north-west corner of the intersection of Princess and Wellington Streets.
Inside Dimensions:	Octagonal manhole with an inscribed diameter of 2.44m
Roof:	The top slab is approximately 267mm thick concrete. Significant delamination of the concrete was noted over a portion of the ceiling and a wide crack was evident at the edges of the manhole opening. Corrosion of the reinforcement was visible through the crack.
Walls:	No indication of significant structural distress was noted.
Recommendations:	Though temporary shoring of the roof slab is not yet warranted, further spalling of the concrete may be expected leading to an acceleration of the corrosion of the reinforcement. The existing slab could be repaired using purpose made patching materials and procedures though the limited access and the presence of wiring within the manhole could prove problematic. Ultimately it may be more cost effective to replace the top slab in its entirety. There is currently insufficient depth between the top of the manhole roof slab and the existing sidewalk to cast a new structural slab over the existing, as was done to remediate EM 218.

## 5.2 Manhole EM211

Location:	Beneath the sidewalk at the west side of Bagot Street between Princess and Brock Streets.
Inside Dimensions:	Triangular configuration 2.43m x 2.4m x 1.93m high
Roof:	The top slab consists of a 241mm concrete slab, the top of which is located approximately 267mm below the surface of the sidewalk above. The underside of the slab was found to be generally in good condition.
Walls:	The walls were found to consist of poured concrete. A horizontal crack was noted at the west wall at the interface between the top of the wall and the roof slab. The crack

	continues at both the north and south walls, though it migrates towards the top of the duct banks in those walls. A similar horizontal crack was noted at the top of the east wall, along with pattern cracking above the duct bank entry. A series of cracks were evident on the north-east wall as well. The lower portion of the walls appeared to be in good condition.
Recommendations:	The walls of this manhole likely span from the base slab to the top slab. The presence of cracks between the wall and the top slab are of concern. We recommend that these cracks be repaired using injected epoxy in order to restore the connection between the walls and the top slab.
Manhole EM213	
Location:	Beneath the sidewalk on the south side of Princess Street between Bagot and Wellington (west of EM214).
Inside Dimensions:	2.43m x 2.74m
Roof:	Roof consists of a cast in place concrete slab supported on three sides on cast-in-place concrete walls and on what appears to be a concrete beam, as well as on two W200 steel beams.
	The underside of concrete slab was generally found to be in good condition with no significant signs of deterioration, except around the manhole access. There, significant delamination has occurred, along with corrosion of the now exposed concrete. The top surface is exhibiting significant cracking. The cracking, however, is not currently of structural concern, though the presence of the cracks will result n further penetration of chloride-laden moisture which will accelerate the deterioration of these slabs. The region to the south of the concrete beam, viewed from the underside, appears to be of different construction. The region is very narrow and not really of consequence. In it, there is evidence of the remnants of plywood forms and some voids.
	Severe corrosion was noted on the steel beam bearing on the north wall. Significant corrosion was noted throughout the steel beams.
Walls:	The walls on three sides consist of cast-in-place concrete. The remaining wall is clay tile, possibly over concrete masonry. A void was noted immediately beneath the

	Recommendations:	<ul><li>bearing point for the steel beam where it bears on the east wall. The mortar joists of the clay tile wall were found to be deteriorated and in need of repair. A hole had been crudely broken through this wall. A roughly horizontal joint, or crack, was observed in the east wall approximately 495mm below the ceiling.</li><li>Provide grout under the bearing point for one of the steel beams. Provide temporary shoring at the steel beam that bears on the north wall. Repointing of clay tile wall and infilling of hole through wall.</li></ul>
5.4	Manhole EM214	
	Location:	South side of Princess Street between Bagot and Wellington
	Inside Dimensions:	2.085m x 3.112m x 2.337m high + .965m x 1.099m x 2.337m high
	Roof:	The roof consists of a cast in place concrete slab, approximately 200mm thick, supported on non-galvanized steel beams, and on the perimeter walls. The concrete ledge for the vent grating has spalled, leaving the grating inadequately supported on one side, and the grating has been deformed under load as a result. The reinforcement at the spalled ledge is visible and was found to be severely corroded.
		Two W200 steel beams span parallel to Princess Street. These beams are exhibiting varying degrees of corrosion, most significantly on their bottom flanges. Smaller S150 beams frame into the W200 beams around the access opening. These beams are in somewhat better shape, though they, too, are corroded.
		The manhole consists of two 'rooms'. At the smaller room, the wood forms for the roof slab were abandoned in place and there is an adjacent portion of unformed concrete mass.
	Walls:	The north and east walls consist of parged concrete, whereas the west and south walls are of parged concrete masonry construction. The west masonry wall is exhibiting cracking at the mortar joints and signs of expose to moisture that is leading to spalling damage of the masonry. The east concrete wall has suffered spalling damage and cracking, particularly in the vicinity of the duct bank opening, and appears to be showing signs of inward bulging. Widespread spalling of

Page 14

the parging was evident.	Spalling of the concrete at the
bearing location for the s	teel beam at the roof was noted.

Recommendations: Replace damaged grating. Provide temporary shoring for steel beams (3 locations). Walls in distress – temporary shoring of walls required. Localized repairs to roof slab recommended.

#### 5.5 Manhole EM215

Location:	Southwest corner of Princess and Wellington Streets.
Inside Dimensions:	Octagonal manhole with an inscribed diameter of 2.44m
Roof:	The top slab is approximately 533mm thick concrete. Significant delamination of the concrete was noted over a portion of the ceiling. Significant corrosion of the reinforcement was visible.
Walls:	No indication of significant structural distress was noted.
Recommendations:	Though temporary shoring of the roof slab is not yet warranted, further spalling of the concrete may be expected leading to an acceleration of the corrosion of the reinforcement. The existing slab could be repaired using purpose made patching materials and procedures though the limited access and the presence of wiring within the manhole could prove problematic. Ultimately it may be more cost effective to replace the top slab in its entirety. There is currently insufficient depth between the top of the manhole roof slab and the existing sidewalk to cast a new structural slab over the existing, as was done to remediate EM 218.
Manhole FM261	

## 5.6 Manhole EM261

Location:	Beneath the street at the northwest corner of Ontario and Brock Streets
Inside Dimensions:	Approximately 1.75m x 1.85m x 1.19m clear height.
Roof:	Concrete slab, at least 330mm thick. Some spalling evident. Embedded steel beams visible at some spall locations. Possible old rails. Significant surface corrosion was evident on the embedded steel elements.
Walls:	Walls are of clay brick construction. Severe cracking and

	inward movement noted. Portion of wall at corner removed to permit connection with adjacent manhole – this further weakened the structure.
Recommendations:	Walls are damaged to point where replacement is warranted. This structure is particularly vulnerable due to its placement beneath a street and by the fact that its walls were weakened when they were partially removed at one corner to connect into the adjacent manhole.
Manhole EM262	
Location:	Beneath the sidewalk at the northwest corner of Ontario and Brock Streets
Inside Dimensions:	Octagonal manhole with an inscribed diameter of 2.464m
Roof:	Underside of concrete slab appears to be in good condition. One location exhibiting evidence of rust staining – not significant at this time.
Walls:	No indication of significant structural distress was noted. A passageway connects this tunnel to adjacent manhole 261.
Recommendations:	No remediation or shoring required at this time.

Prepared by:



Chris D. Roney, P.Eng., BDS



Photo 1



Photo 2



Photo 3







Photo 5



Photo 1



Photo 2



Photo 3





Photo 4



Photo 5



Photo 1



Photo 2







Photo 5

Pho	oto	3





Photo 1



Photo 4



Photo 2



Photo 3



Photo 5



Photo 6

RONEY	ENGINEERING	PROJECT: Electrical Utility Vaults & Manholes — Structural Assessment	Vault TV11	
CONSULTING STRUCTURAL ENGINEERS	KINGSTON ONTARIO 542-3092	LOCATION: Kingston, Ontario	SCALE: nts	DWG.NO: <b>PA</b>
ENGINEERS	5+2-5092	FOR: Utilities Kingston	DATE: 12/16/2010	P4



Photo 1



Photo 2



Photo 3







Photo 5



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5

RONEY		PROJECT: Electrical Utility Vaults & Manholes — Structural Assessment	TITLE: Vault TV37	
CONSULTING STRUCTURAL ENGINEERS	KINGSTON ONTARIO 542-3092	LOCATION: Kingston, Ontario	SCALE: nts	DWG.NO:
ENGINEERS	542-3092	FOR: Utilities Kingston	DATE: 12/16/2010	P6



Photo 1



Photo 2



Photo 3







Photo 5







Photo 2





Photo 4

RONEY	ENGINEERING	PROJECT: Electrical Utility Vaults & Manholes — Structural Assessment	TITLE: Electrical Ma	nhole EM207
CONSULTING STRUCTURAL ENGINEERS	KINGSTON ONTARIO 542-3092	LOCATION: Kingston, Ontario	SCALE: nts	DWG.NO:
ENGINEERS	542-3092	FOR: Utilities Kingston	DATE: 12/16/2010	<b>P8</b>



Photo 1





Photo 4

Photo 2



Photo 3

RONEY	ENGINEERING LIMITED	<sup>PROJECT:</sup> Electrical Utility Vaults & Manholes — Structural Assessment		nhole EM211
CONSULTING STRUCTURAL ENGINEERS	KINGSTON ONTARIO 542–3092	LOCATION: Kingston, Ontario	SCALE: nts	DWG.NO:
ENGINEERS	342-3092	FOR: Utilities Kingston	DATE: 12/16/2010	P9



Photo 1





Photo 4

Photo 2



Photo 3



Photo 5

RONEY		PROJECT: Electrical Utility Vaults & Manholes — Structural Assessment		nhole EM213
CONSULTING STRUCTURAL ENGINEERS	KINGSTON ONTARIO 542–3092	LOCATION: Kingston, Ontario	SCALE: nts	DWG.NO:
LINGINEERS	542-3092	FOR: Utilities Kingston	DATE: 12/16/2010	<b>P10</b>



Photo 6



Photo 8



Photo 7



Photo 9

RONEY	ENGINEERING	PROJECT: Electrical Utility Vaults & Manholes — Structural Assessment	TITLE: Electrical Ma	nhole EM213
CONSULTING STRUCTURAL ENGINEERS	KINGSTON ONTARIO 542–3092	LOCATION: Kingston, Ontario	SCALE: nts	DWG.NO:
ENGINEERS	5+2-3092	FOR: Utilities Kingston	DATE: 12/16/2010	P11



Photo 10



Photo 12



Photo 11



Photo 13

RONEY		PROJECT: Electrical Utility Vaults & Manholes — Structural Assessment	TITLE: Electrical Ma	nhole EM213
CONSULTING STRUCTURAL ENGINEERS	KINGSTON ONTARIO 542—3092	LOCATION: Kingston, Ontario	SCALE: nts	DWG.NO:
LINGINEERS	542-3092	FOR: Utilities Kingston	DATE: 12/16/2010	P12



Photo 1





Photo 4

Photo 2



Photo 3









Photo 6





Photo 9

Photo 7



Photo 8





RONEY	ENGINEERING	PROJECT: Electrical Utility Vaults & Manholes — Structural Assessment	TITLE: Electrical Ma	nhole EM214
CONSULTING STRUCTURAL ENGINEERS	KINGSTON ONTARIO 542–3092	LOCATION: Kingston, Ontario	SCALE: nts	DWG.NO: <b>P14</b>
ENGINEERS	542-3092	FOR: Utilities Kingston	DATE: 12/16/2010	<b>Г 14</b>





Photo 2











Photo 2





Photo 4

RONEY	ENGINEERING			nhole EM261
CONSULTING STRUCTURAL ENGINEERS	KINGSTON ONTARIO 542–3092	LOCATION: Kingston, Ontario	SCALE: nts	DWG.NO:
ENGINEERS	342-3092	FOR: Utilities Kingston	DATE: 12/16/2010	<b>P16</b>





Photo 6



RONEY	ENGINEERING	PROJECT: Electrical Utility Vaults & Manholes — Structural Assessment	TITLE: Electrical Ma	nhole EM261
CONSULTING STRUCTURAL ENGINEERS	KINGSTON ONTARIO 542–3092	LOCATION: Kingston, Ontario	SCALE: nts	DWG.NO:
LIGHTERS	5+2-5092	FOR: Utilities Kingston	DATE: 12/16/2010	P17



Photo 1



Photo 2



Photo 3







Photo 5

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 6 Appendix B

## **APPENDIX B**

## **Kingston Hydro**

**Energy Probe Interrogatory Response** 

Interrogatory # 52

## Ref: Updated Evidence of February 4, 2011, Appendix A

#### With respect to the Substation No. 3 Circuit Breakers Project, please provide the following:

## a) The date upon which Kinston Hydro was advised that the 5kV breakers at this substation were obsolete and not repairable.

Kingston Hydro was advised about the 5kV breakers at Substation No.3 on October 6, 2010 when field staff updated the Electric Priority Database stating that the 5kV breakers at Substation No.3 "...continually need to be repaired in order to operate them. Need to look at replacing with retrofits or new Switch Gear Line".

While undertaking routine maintenance and testing in September 2010, Utilities Kingston found 8 of 11 breakers at Substation No.3 would not operate (Close) in the test position. Staff had to strip parts from two breakers of the same make and model located at Substation No.15 in order to repair and return all eight faulty breakers at Substation No.3 to service. It took two weeks to complete the breaker repairs. The two breakers at Substation No.15 from which parts were taken are now permanently out-of-service leaving no spare parts for future repairs.

In addition to the recent maintenance challenge, there have also been difficulties in obtaining replacement parts for these breakers. A breaker that was shipped out to the manufacturer's repair shop was not returned to Kingston Hydro until 17 months later (August 2010), due to the difficulty they experienced in sourcing replacement parts from Europe. That returned breaker was determined to be unusable as a result of the dislodgement of a critical component during routine shipping.

Field staff also considered a long history of maintenance problems with the breakers at Substation No.3 and Substation No.15 when advising that the 5kV breakers at this substation were obsolete and not repairable. These maintenance problems include the latch for charging motors, the spring charging mechanism, and linkage pin locking clips. The most recent repair of one breaker was due to structural problems with several components including a lever, steel plate and a shock absorber.

# b) Do all 11 of the circuit breakers need to be replaced at the same time, or can the circuit breakers be replaced one a time over a period of time, using the breakers that are replaced as backup for those not replaced? Please explain.

It has been determined that all 11 circuit breakers at Substation No.3 should be replaced at the same time for the following reasons:

- The breakers have typically failed to Close when operated from the Open position in the past. However, there is concern that the breakers may fail to Open from the Closed position while in-service thus posing a safety hazard to staff and the public.
- Staff have noted clips and other parts dislodging from the switchgear during maintenance and testing. There is a potential safety risk of exposing workers to an arc-flash hazard in the event that a part dislodges while the breaker is in-service and causes a flash-over within a breaker cell.
- Since the entire substation must be de-energized whenever one or more circuit breakers are replaced, it is much less of an inconvenience to customers, as well as more efficient and cost-effective from a switching and labour perspective, to replace all 11 circuit breakers.
- The circuit breakers are clearly a problem. Using the same breakers as back-up to deal with failures, would not be prudent, as it would simply be creating the situation whereby a similar failure may result again, creating safety risks to staff and the public, as well as customer power outages. Kingston Hydro does not consider it appropriate to delay the replacement of these circuit breakers.

1

## 2012 CAPITAL EXPENDITURES OVERVIEW

This section provides details on the 2012 capital program which consists of projects totalling
\$2.525 million. The capital program supports Kingston Hydro's business objectives of prudent
and sustainable investments in:

- 5 public and employee safety
- 6 business system performance and reliability
- 7 regulatory compliance
- 8 while meeting asset end-of-life replacement and long term planning requirements.
- 9 2012 will see Kingston Hydro continuing its focus on systematic replacement of:
- Deteriorated overhead and underground infrastructure, specifically, poles, overhead
   lines, PILC cable and transformer vaults (including vintage oil switches which have to
   be de-energized to operate and end-of-life submersible transformers).
- Major substation equipment such as transformers and switchgear (circuit breakers)
   due to operability issues and obsolescence.
- Electromechanical and solid state substation relays (which are first generation electronic relays installed in the 1970s and 1980s) with modern microprocessor based electronic substation relays due to obsolescence, improving protection and control schemes, and ultimately, worker and equipment safety.
- Table 1 contains a breakdown of the estimated capital expenditures by project, followed bysummaries for those projects valued above the \$55,000 materiality threshold.

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 2 of 22

## 1 Table 1 – Capital Project Expenditures

2012 Electric Capital Plan	
Deteriorated Overhead and Underground Infrastructure Replacement	\$ 1,100,000
SCADA	\$ 285,000
Transformer Vault (TV41) Electric Upgrades	\$ 230,000
Transformer Vault (TV7) Electric Upgrades	\$ 150,000
Substation No.1 Rebuild – Preliminary Engineering	\$ 150,000
Transformer Vault (TV54) Electric Upgrades	\$ 130,000
Meters	\$ 125,000
Substation No.2 Relay Replacement	\$ 80,000
Annual Overhead & Underground Services	\$ 60,000
Substation No.11 44kV Autotransfer Controls & Protection	\$ 50,000
Substation Structures	\$ 50,000
44kV Motor Operated Switch	\$ 40,000
Substation Apparatus	\$ 40,000
Tools & Equipment	\$ 35,000
Total	\$ 2,525,000

2Category: OperationsDriver: InspectionCapital: \$1,100,0003Commencement Date: January 2012In-Service Date: December 2012	1	Project: Deteriorated Overhead and Underground Infrastructure Replacement			
3 Commencement Date: January 2012 In-Service Date: December 2012	2	Category: Operations	Drive	er: Inspection	Capital: \$1,100,000
	3	Commencement Date: Januar	y 2012	In-Service Date:	December 2012

4

## 5 **Project Description**

6 The 2012 Deteriorated Overhead and Underground Infrastructure Replacement program will 7 continue to fund replacement of deteriorated poles and associated line rebuilds, unforeseen 8 cable failures, and other localized deficiencies identified through the annual overhead and 9 underground infrastructure inspection program. Replacement of deteriorated poles directly 10 improves public safety by eliminating the risk of pole collapse and downed live lines if vehicle 11 collisions, or even inadvertent contact by snow removal or landscaping equipment, occurs.

12 This program typically consists of numerous small projects, involving single pole 13 replacements as well as replacement of short sections of overhead line or cable (many of 14 which are below the materiality threshold). However, when several consecutive deteriorated 15 poles are identified, major line rebuilds are proposed to achieve economies of scale.

#### 16 Cost Breakdown

	Labour and Vehicles	
18	Materials and Contracts	<u>\$830,000</u>
19	Total	\$1,100,000
Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 4 of 22

#### 1 **Project:** SCADA

2 Category: Operations Driver: Asset Failure

**Capital:** \$285,000

3 Commencement Date: January 2012 In-Service Date: December 2012

4

#### 5 **Project Description**

6 Kingston Hydro is in the process of implementing a number of initiatives which started in 7 2010 and will extend through 2015, involving various hardware and software components of 8 its Supervisory Control and Data Acquisition (SCADA) system. 2012 will see installation of 9 the SCADA master system in the form of new servers and workstations. These upgrades are 10 aimed at enhancing the reliability, security, and functionality of its now obsolete SCADA 11 system. Many of these projects result from an internal SCADA system assessment begun in 12 2008 and completed in early 2009. This assessment determined that aging SCADA system 13 components - most installed almost 20 years ago - are very near failure. Since the time of 14 this assessment Kingston Hydro has also determined that both new and used replacement 15 parts are no longer available for purchase. Several service failures were recently 16 experienced. Fortunately, in-house spare parts were available, however this inventory of 17 spare components is approaching critically low levels. Kingston Hydro will inevitably 18 experience more failures of the equipment at all levels of the existing SCADA system if 19 upgrades are not implemented in the near term. A summary of the planned expenditures by 20 initiative for 2012 is as follows:

#### 21 Table 2 – SCADA 2012 Planned Expenditures

Initiative	2012 Expenditures
Servers and Workstations	\$279,000
Test/Development Lab	\$6,000
Total	\$285,000

22

The entire SCADA upgrade plan for Kingston Hydro's assets is estimated to cost \$975,000, with costs spread relatively evenly throughout the 2010 to 2015 project period. One exception to equal cost distribution occurs in 2012 when the system servers and workstations replacement is planned. This major replacement will increase the 2012 budget to an approximate value of \$285,000.

6 The components of the 2012 expenditures are described in more detail below.

 Servers and Workstations: This initiative involves replacing aging SCADA servers and workstations located at John Counter Boulevard, Kingston Hydro's headquarters. The existing servers and workstation are 16 years old, and have recently exhibited increasingly frequent failures which have disrupted service to customers. The expense associated with support and maintenance increases as the system ages, accelerating the decision to replace. Replacement will provide more stable levels of support, and will reduce the frequency and duration of service failures.

14 Test/Development Lab: This initiative, also arising from recommendations of the • 15 SCADA system assessment, involves the design and installation of a software and 16 hardware solution to provide SCADA engineers and technicians with the ability to 17 develop, test, troubleshoot, and recreate equipment and software issues in a 18 controlled test environment. Use of a controlled test environment has become a best 19 practice in the organization's IT environment, for many of the same reasons as noted 20 above. More specifically, the test environment will be designed in such a way as to 21 enable the following:

22

Troubleshooting of field issues by recreating them in a controlled environment;

- 23 o Testing of new firmware and software releases without affecting the live
   24 system;
- 25 o Evaluating new products so informed decisions can be made regarding
   26 replacement;
- 27 o In-house training in a safe and controlled setting;

1	<ul> <li>Testing of potential logic modifications in a controlled setting, and;</li> </ul>
2	<ul> <li>Knowledge retention without the need to practice on the live system.</li> </ul>
3	Cost Breakdown
4	Labour and Vehicles\$65,000
5	Materials
6	Total\$285,000

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 7 of 22

1	Project: Transformer Vault 41 (TV41) Electric Upgrades					
2	Category: Operations	Driver:	Inspection	Capital: \$230,000		
3	Commencement Date: February 2	2012	In-Service Date: June	e 2012		

4

#### 5 **Project Description**

6 TV41 is located on Notch Hill Road, and services two apartment buildings, 24 houses and a 7 sewage pumping station. Currently, the vault contains an oil switch (inoperable when live) 8 and an oil-filled transformer. The oil switch is responsible for distributing 5kV power from the 9 substation feeder to primary service customers in the surrounding area, while the transformer 10 feeds local town homes and streetlights. Both the switch gear (oil switch) and the transformer 11 have reached end-of-life. As in TV6, TV11 and TV7, the existing oil switch in TV41 is 12 inoperable when live due to arc hazards present when operating the switch handle. 13 Therefore, Kingston Hydro also plans on replacing the transformer and oil switch with a SF6 14 Vista Gear switch significantly improving worker safety, reducing outage duration and 15 improving system performance and reliability. Figure 1 shows the vault's oil switch.

This project is an example of Kingston Hydro's strategy of relocating underground equipment to above ground sites where such relocation is possible and economically feasible to improve worker safety and access. As such, Kingston Hydro plans to decommission the vault which will include removal and replacement of the existing transformer and switchgear, above ground, as well as complete an environmental assessment to identify any oil contamination from the transformer or oil switch.

Further deferral of this project would result in ongoing extended outages for oil switch deenergization, maintenance and inflated (i.e. poor) reliability indices. It is essential that this project be completed before commencing replacement of direct buried 5kV PILC for the associated feeder in the future.

During 2011, in the course of managing Substation No. 3 and Substation No.11 projects,
Kingston Hydro concluded that increases to Substations 3 and 11 budgets would achieve

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 8 of 22

improved worker safety and protection achieved by specifying arc blast rated switchgear to
meet utility best practice for arcflash requirements as stated in CAN/ULC S-801-10 "Standard
on Electric Utility Workplace Electrical Safety for Generation, Transmission and Distribution".
Therefore, although originally planned for 2011 (refer to Kingston Hydro's COS Rate
Application OEB File #EB-2010-0136), Kingston Hydro chose to defer TV41 to 2012 because
of unavailable funds due to budget reallocation to substations No. 3 and No. 11.

### 7 Cost Breakdown

8	Labour and Vehicles	\$35,000
9	Materials and Contracts	<u>\$195,000</u>
10	Total	\$230,000

### 11



12

13 Figure 1 – TV41 End-of-Life Oil Switch

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 9 of 22

1	Project: Transformer Vault (TV7) Electric Upgrades				
2	Category: Operations	Driver: Asset Failu	re	Capital: \$150,000	
3	Commencement Date:	May 2012	In-Service Date: June	2012	

4

#### 5 **Project Description**

TV7 is located on the corner of Princess St. and Montreal St. The vault supplies a 5kV radial
primary voltage feed to a theatre and 120/208V secondary voltage to approximately 40
businesses located within a one to two block radius. Built in 1964, TV7 is located mainly
under the sidewalk but extends partially under the roadway.

10 Structurally, a number of beams supporting the vault's ceiling show significant 11 corrosion, as noted by the structural consultant in the December 2010 Structural 12 Assessment (see Appendix A "2010 Structural Assessment of UK Vaults and 13 Manholes"). The recommendation was to shore the beams until full remediation could 14 be undertaken. Given the deteriorated condition of the vault ceiling, Kingston Hydro plans to rebuild the vault ceiling with precast self supporting slabs and extend the 15 16 sidewalk to cover the portion of the vault currently extending into the roadway thus 17 better protecting the vault's electrical equipment from vehicle loads. Structural 18 reinforcement and sidewalk extension will also improve public safety (removes the 19 issue of vehicles parking on the vault ceiling) as well as worker safety from 20 unnecessary structural loads on the vault roof while performing work.

Electrically, significant corrosion has been identified in the transformer housing, as
 shown in Figure 3, during routine inspections likely due to the damp conditions in the
 vault. Moreover, similar to TV6 and TV11, the existing oil switch in TV7 is inoperable
 when live due to arc hazards present when operating the switch handle. Therefore,
 Kingston Hydro also plans on replacing the transformer and oil switch with a SF6
 Vista Gear switch significantly improving worker safety, reducing outage duration and
 improving system performance and reliability.

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 10 of 22

Therefore, Kingston Hydro plans to replace the roof slabs and beams, extend the sidewalk to
 ensure long term protection for the public, employees and equipment, replace the oil switch in
 TV11 with a SF6 Vista Gear switch, replace the end-of-life transformer, and finally, replace
 the primary PILC cable with TR-XLPE.

Like TV41, although originally planned for 2011 (refer to Kingston Hydro's COS Rate
Application OEB File #EB-2010-0136), Kingston Hydro chose to defer civil upgrades of TV7
to 2012 because of unavailable funds due to budget reallocation to substations No. 3 and No.
11. Kingston Hydro concluded that budget increases to substation No. 3 and 11 would
achieve improved worker safety and protection achieved by specifying arc blast rated
switchgear per CAN/ULC S-801-10.

11



12

13 Figure 2 – TV7 Corroded Beams

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 11 of 22



1

2 Figure 3 – TV7 End of Life Transformer

3

## 4 Cost Breakdown

5	Labour and Vehicles	\$12,000
6	Materials	<u>\$138,000</u>
7	Total	\$150,000

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 12 of 22

1	Project: Substation No. 1 Rebuild – Preliminary Engineering					
2	Category: Operations	Driver:	Asset Failure	Capital: \$150,000		
3	Commencement Date: January 20	012	In-Service Date:	December 2012		

4

#### 5 **Project Description**

Substation MS1 has served Kingston Hydro customers for more than 50 years since its last
major refurbishment in 1957. Today, Kingston Hydro considers Substation MS1 to be one of
its highest priorities for capital renewal projects due to the criticality, reliability, condition and
maintainability aspects of this facility.

10 One of the key factors contributing to the criticality of Substation MS1 is the number of 11 customers served by this substation. MS1 plays a pivotal role in distributing power to the downtown core of Kingston at both 44kV and 5kV voltage levels. There is one 44kV circuit 12 13 breaker protecting the 44kV underground distribution system that serves two hospitals, one data centre and two multi-use high-rise developments. These multi-use developments 14 15 contain a retirement home, two hotels, residential apartments/condominiums, office space 16 and retail space. There are also twelve 5kV circuit breakers serving approximately 3600 17 residential, commercial and institutional customers.

There are several risks associated with continuing to defer plans for the refurbishment and 18 19 upgrade of substation MS1. One of the greatest risks is the failure of one or more power 20 transformers which would have a significant impact on reliability since this type of failure 21 would trip the station differential protection scheme resulting in a disruption to both the 44kV 22 and 5kV supply to the downtown core. Another risk is an extensive and extended outage to 23 the 5kV distribution of substation MS1 since seven of the twelve 5kV feeders at MS1 cannot 24 be easily or fully off-loaded to another substation. Extended outages to the 5kV distribution of 25 MS1 could also impact the wellbeing of businesses and residents in the downtown core 26 especially if an outage occurred during the coldest days of the winter months.

Kingston Hydro expects the rebuild of substation MS1 will be a multi-million dollar and multiyear project. The project budget and project schedule are difficult to determine until a detailed
assessment of the existing site is complete. However, Kingston Hydro foresees the following
priorities for the rebuild:

- Make ready work such as asbestos removal
- 6 Ground Grid upgrades
- 7 Power Transformer replacement
- 8 44kV switchgear replacement
- 9 5kV switchgear replacement
- 10 In 2012, Kingston Hydro plans to initiate engineering studies to develop concepts and plans
- 11 for the MS1 rebuild.
- 12 Cost Breakdown
- 13 Contracts ......<u>\$150,000</u>
- 14 Total.....\$150,000

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 14 of 22



Figure 4 – Substation No. 1 - Water Cooled 3MVA Transformer (1 of 6)



Figure 5 – Substation No. 1 Water Cooling System Plumbing (1 of 6 transformers)

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 15 of 22

1	Project: Transformer Vault (TV 54) Electric Upgrades				
2	Category: Operations	Driver: Asset Failure	Capital: \$130,000		
3	Commencement Date: April 2012	In-Service Date:	August 2012		

4

#### 5 **Project Description**

Kingston Hydro owns two legacy transformers installed in a customer-owned underground 6 7 vault at Transformer Vault (TV) 54 located on Westdale Avenue and Bath Road. The vault 8 transformers supply different secondary voltage levels (600V and 120/240V) to a commercial 9 plaza and have reached end of life. During routine inspections staff noted an oil leak from the transformer with a service voltage of 120/240V, which guickly deteriorated further to failure. 10 11 Additionally, a temporary steel plate was placed over the top of the vault due to poor 12 structural condition. To compound matters further, the primary 3 conductor PILC cable that 13 normally feeds the commercial plaza via TV54, apartment buildings and a bank, failed at the 14 end of 2005. Since then, Kingston Hydro has been relying on an alternate 5kV supply. This PILC cable is also direct buried and located under Bath Road which is a major arterial road. 15

16 As part of this project, Kingston Hydro plans to replace the faulted PILC cable section with 17 concrete encased TR-XLPE cable in duct and install a new riser pole. To improve worker 18 access and safety to TV54, Kingston Hydro plans to abandon the underground vault and 19 replace it with a padmount transformer located at grade which requires installation of a new 20 concrete pad, a new 5kV pad mount transformer, reconfiguration of adjacent riser poles and 21 installation of approximately ninety metres of new feeder cable. The customer is also required 22 to upgrade the existing 600V and 120/240V services to a single 600/347V service before the 23 padmount transformer can be installed. The following photos show the replacement of the 24 failed transformer and the poor structural condition of the vault.

Like TV7 and TV41, although originally planned for 2011 (refer to Kingston Hydro's COS Rate Application OEB File #EB-2010-0136), Kingston Hydro chose to defer TV54 electric

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 16 of 22

1 upgrade work to 2012 because of unavailable funds due to budget reallocation to substations

2 No. 3 and No. 11 to achieve improved worker safety and protection.

## 3 Cost Breakdown

6	Total	\$130,000
5	Materials and Contracts	<u>\$105,000</u>
4	Labour and Vehicles	\$25,000

- 7
- 8



9

10 Figure 6 – Failed Transformer

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 17 of 22



2 Figure 7 – Deteriorated Vault Structure and Low Vault Headroom

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 18 of 22

#### 1 **Project:** Meters

2	Category: Metering	Driver	Customer	Capital: \$125,000
3	Commencement Date: January	/ 2012	In-Service Date:	December 2012

4

#### 5 **Project Description**

6 This line item in the projected capital expenditures includes costs for the purchase and 7 installation of new interval and demand meters for new services and unforeseen meter 8 failures, and excludes any costs associated with smart meters.

9 For commercial customers consuming in excess of 200 kW, the interval meter is used.10 Approximately 10 customers could move to interval metering in 2012.

Demand meter customers who typically consume greater than 50 kW but less than 200 kW continues to be validated and exchanged with the new smart meter in 2011. This population of customers can, with periodic review, be reclassified as General Service < 50 kW. Additionally, without this upgrade a small subset of the meter population will continue to require a manual meter read. For these reasons it was deemed appropriate to migrate to the new technology.

Outside of the smart meter deployment, meters may be purchased for a number of different reasons, including replacement of meters beyond end-of-life, meters at or beyond the expiry date of their seals, upgrades of some customers from demand meters to interval meters, and meter installations resulting from expansion of the distribution network.

Historically, Kingston Hydro has administered a program for monitoring of its distribution
 meters to ensure meters are operating accurately and the condition of the seals meets or
 exceeds standards mandated by the *Electricity and Gas Inspection Act*.

Kingston Hydro has not included any capital expenditures for replacement of kWh-only
 meters in 2012 due to the province-wide implementation of smart meters which began in

2010 and is near completion as of September 2011. It has however included expected costs
 associated with the following in establishing capital expenditures for 2012:

- Potential to add approximately 16 interval metered customers.
- New kWh meter installation for additional new services in 2012.
- 5 Replacement of defective meters.

### 6 Cost Breakdown

- 7 Materials.....<u>\$125,000</u>
- 8 Total.....\$125,000

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 20 of 22

1	Project: Substation No.2 Relay Replacement				
2	Category: Operations	Driver:	Asset Failure	Capital: \$80,000	
3	Commencement Date: January 20	012	In-Service Date:	December 2012	

4

#### 5 **Project Description**

6 Substation No.2 is located at the intersection of Macdonnell Street and Brock Street in central 7 Kingston. The feeders from this substation supply a medical office complex, an events hall 8 and residential load, with a peak demand of approximately 5MVA. The feeder protection 9 relays are of early 1980s solid state electronic vintage and are technologically obsolete. One 10 relay failed in late 2009 and could not be replaced due to the lack of replacement parts. 11 Failure of a 5kV feeder protection relay could result in worker injury as well as utility and 12 customer equipment damage.

13 Therefore, Kingston Hydro proposes to replace these solid state relays with modern 14 Integrated Electronic Device (IED) microprocessor based protection relays. As of 2011, 15 Kingston Hydro has established a standard IED relay model to be implemented in future 16 substation upgrades. These relays provide better worker and equipment protection through 17 the availability of group settings, increased safety through one-button options for live line 18 work, detailed event reports providing key fault information to Engineering staff, and the 19 ability to maintain near real time two-way communication with the Operations Centre through 20 SCADA allowing for faster restoration. Coordinated SCADA and communication upgrades will 21 also be required to take advantage of the features offered by the IED relays since the existing 22 SCADA RTUs are also technologically obsolete.

Deferring the project would increase the risks of additional relays failing resulting in the loss
 of protection, increased public and worker safety risks as well as potential damage to utility
 and customer equipment.

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 21 of 22

#### 1 Cost Breakdown

2 Labour and Vehicles\$35,0	00
-----------------------------	----

- 3 Materials.....\$45,000
- 4 Total.....\$80,000

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 7 Page 22 of 22

1	Project: Annual Overhead & Under	ground	Services	
2	Category: Operations	Driver:	Customer	Capital: \$60,000
3	Commencement Date: January 20	012	In-Service Date: D	ecember 2012

4

## 5 **Project Description**

6 This item represents a large number of small projects to be completed during the year driven 7 primarily by customer requirements. The scope of this project includes new commercial and 8 industrial service connections, including primary and secondary transformations and/or 9 extensions, requests for equipment relocation and in-fill projects sometimes including 10 purchase and installation of various pieces of equipment. Many of these types of projects 11 include a recoverable component; however the capital addition amount of \$60,000 is net of 12 that.

#### 13 Cost Breakdown

14	Labour and Vehicles	.\$48,000
15	Materials and Contracts	. <u>\$12,000</u>
16	Total	.\$60,000

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 8 Page 1 of 3

2012 Electric Capital Plan						
King St U/G Cable Rebuild (M454)	\$	1,860,000				
Poles - Deteriorated	\$	1,100,000				
Substation No.1 Rebuild	\$	150,000				
Transformer Vault TV7 Oil Switch and Cable Replacement	\$	150,000				
Transformer Vault TV6 Oil Switch and Cable Replacement	\$	565,000				
Substation No.15 Circuit Breakers Switchgear	\$	560,000				
Transformer Vault 11 (TV11) Vault Rebuild	\$	515,000				
SCADA	\$	285,000				
Transformer Vault 41 (TV41)	\$	230,000				
TV 54 Westdale at Bath - Vault Upgrade	\$	130,000				
Meters	\$	125,000				
Substation No.2 Relays	\$	80,000				
Annual Overhead & Underground Services	\$	60,000				
Substation No.11 44kV Autotransfer Controls & Protection	\$	50,000				
44kV Motor Operated Switch	\$	40,000				
Substation Structures	\$	50,000				
Tools & Equipment	\$	35,000				
Substation Apparatus	\$	40,000				
Total	\$	6,025,000				

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 8 Page 2 of 3

2013 Electric Capital Plan						
44kV Cable Bath and Princess lead 4/0 cable	\$	100,000				
Annual Overhead & Underground Services	\$	60,000				
Meters	\$	125,000				
Ontario @ Place D'Armes (Padmount Vistagear)	\$	100,000				
Poles - Deteriorated	\$	1,000,000				
Princess St Reconstruction (Phase 2 - Part 1)	\$	600,000				
Queen at Ontario (PadmountTx)	\$	50,000				
Refeed Bellevue House (eliminate direct feed from MS#6)	\$	50,000				
Seaforth Rd U/G Cable Replacement	\$	100,000				
Substation No.1 Rebuild	\$	1,100,000				
Substation No.11 44kV Cable Feeds & Two 5kV Feeds	\$	170,000				
Substation No.12 44 Feed	\$	50,000				
Substation No.2 44 Autotransfer	\$	50,000				
Substation No.2 44 Feed	\$	100,000				
Tools & Equipment	\$	45,000				
Transformer Vault 3 (TV3) vistagear, secondary panel and Tx	\$	200,000				
Transformer Vault 8 (TV8) Princess at Sydenham - Vault rebuild, Vistagear, Tx	\$	100,000				
Transformer Vault 9 (TV9) Clergy St Tx and Vistagear	\$	100,000				
Barrie St. Reconstruction (south of Clergy) - OH and U/G	\$	2,000,000				
Total	\$	6,100,000				

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 8 Page 3 of 3

2014 Electric Capital Plan							
Poles - Deteriorated	\$	1,200,000					
Princess St Reconstruction (Phase 2 - Part 2)	\$	900,000					
Substation No.1 Rebuild	\$	1,000,000					
Substation No.4 Circuit Breakers and Tx	\$	2,300,000					
Frontenac TS M4/M5 Pilot Wire	\$	200,000					
Annual Overhead & Underground Services	\$	60,000					
Meters	\$	125,000					
Tools & Equipment	\$	45,000					
Substation No.6 Relays	\$	85,000					
Transformer Vault Rebuilds	\$	200,000					
Total	\$	6,115,000					

# OVERVIEW OF LOST REVENUE ADJUSTMENT MECHANISM AND RELIEF REQUESTED

#### 3 Overview

As part of its 2011 Cost of Service Rate Application, Kingston Hydro was awarded relief under the Lost Revenue Adjustment Mechanism (LRAM) for CDM efforts until the end of 2009. As part of its application for 2012 rates, Kingston Hydro requests LRAM relief for revenues lost in 2010. The success of Kingston Hydro's CDM has caused quantifiable distribution revenue losses in 2010 as a result of decreases in kilowatt hour (kWh) consumption and kilowatt (kW) demand related to the implementation of OPA conservation programs over the past 5 years.

In applying for LRAM adjustments Kingston Hydro followed the Board's "Guidelines for Electricity Distributor Conservation and Demand Management" Board File No. EB-2008-0037 issued on March 28, 2008 (the "CDM Guidelines"). The CDM Guidelines describe the Board's policies and procedures with respect to applications for LRAM and SSM recovery associated with distribution rate funded and OPA funded CDM activities.

In conjunction with the CDM Guidelines, the Board's proceeding on *"Conservation and Demand Management ("CDM") Input Assumptions"* Board File No. EB-2008-0352 provides policy guidance on CDM input assumptions. By letter issued January 27, 2009, the Board endorsed the OPA's CDM input assumptions. In accordance with both these documents, Kingston Hydro submits a request to recover historical revenues lost. There have been no CDM specific adjustments outside of the existing load forecasting methodology undertaken for this application.

In preparing the LRAM application, Kingston Hydro also undertook a review of all its eligible programs for the purpose of determining its LRAM claim. Kingston Hydro has determined quantifiable revenue losses caused as the result of Kingston Hydro's implementation of OPA sponsored programs from 2005-2010, and is not requesting relief for lost revenues that may

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 9 Page 2 of 4

1 have been caused through OPA Program initiatives in which it did not play a central role, or

2 Kingston Hydro Community Initiatives that have results which are difficult to quantify.

#### 3 Calculation of Proposed LRAM and Relief Requested

The proposed LRAM and relief requested in this application has been calculated on the same
basis and methodology as that which was approved in the applicant's 2011 Cost of Service
Application.

7 Lost revenue has been calculated by first quantifying the actual kWh consumption and kW 8 demand reductions achieved by Kingston Hydro's administration of Ontario Power Authority programs from 2006 through 2010 by rate class, then multiplying these reductions by the 9 10 appropriate Board-approved variable distribution charge. The calculation does not include any Regulatory Asset Recovery through rate riders. Kingston Hydro has prepared its LRAM 11 application in accordance with the CDM Guidelines and most recently published OPA 12 Assumptions and Measures List. LRAM is available for programs funded by the OPA and 13 14 implemented by the distributor within its licensed service area. Distributors may only recover LRAM claims for revenue losses that can be attributed to the distributor's involvement in the 15 16 program. Kingston Hydro is relying upon the OPA's verification of CDM program related electricity savings as evidence of third party verification for its LRAM claim. Final OPA 17 18 verification for conservation results will be released in Q4 2011, and should they differ from the amounts reported herein, an adjustment shall be filed at that time as per OPA and OEB 19 instructions. 20

This LRAM application includes lost revenues from 2010 to be recovered in the 2012 rate year. As such Kingston Hydro requests that interest charges be applied to calculated lost revenue amounts in order to maintain the value of the unrecovered funds between the time of loss and the time of payment and to cover associated financing costs. Recovery of the LRAM claim will be from the residential, GS<50 kW, GS>50 kW, Large User and Unmetered Scattered Load classes, as these are the classes that have participated in and benefitted from Kingston Hydro administered OPA electricity conservation programs. Kingston Hydro

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 9 Page 3 of 4

- 1 has applied the carrying costs to the customer classes in the same proportion as the total lost
- 2 revenue amounts.

# 3 Table 1: Kingston Hydro LRAM Calculation based on OPA Program Results

	Annual Saving	gs	Monthly S	Savings		Rat	е		LRAM Awar	rd (Cumulative)				
LRAM Customer Class	kWh	kW	kWh	kW	\$/kWh	\$/kWh	\$/kW	\$/kW	kWh kW					
2006 Residential General Service <50 kW General Service >50kW Large User USL SL SeL	1,861,814	1,803	155,151 0 0 0	0 0 1,803 0 0 0	Jan-Apr 0.0135 0.0106	May-Dec J 0.0125 0.0099	an-Apr 1 1.7146 0.5885	May-Dec 1.7931 0.9851		4				
Total	1,861,814	1,803		1,803										
2007 Residential General Service <50 kW General Service >50kW Large User USL SL SeL	1,583,370 0	468 21	131,947 0 0 0	0 0 468 21 0 0	0.0125 0.0099	0.0126 0.01	1.7931 0.9851	1.8902 0.994						
Total	1,583,370	490		490										
2008 Residential General Service <50 kW General Service >50kW Large User USL SL C-1	1,079,028 1,368,422	1,401	89,919 114,035 0 0	0 0 1,401 0 0 0	0.0126 0.01	0.0126 0.01	1.8902 0.994	1.8056 0.992	Recovered in 20	)11 CoS Application				
SeL Total	2,447,450	1,401		0 1,401										
2009 Residential General Service <50 kW General Service >50kW Large User USL SL SeL	178,250 476,446	23 0	14,854 39,704 0 0	0 0 23 0 0 0 0	0.0126 0.01	0.0127 0.01	1.8056 0.992	1.8128 0.996						
Total 2010 Residential General Service <50 kW General Service >50kW Large User USL SL SEL	90,712 1,089,142 11,680	203 0	7,559 90,762 0 0 973	0 0 203 0 0	0.0127 0.01 0.012	0.0126 0.0099 0.012	1.8128 0.996	1.7961 0.9877	\$60,554 \$29,144 \$84,7 \$140	\$29,144	Car Q1 Q2 Q3 Q4 Annual	rying Charge 1.20% 0.89% 0.55% 0.55% 0.80%	Rate \$483 \$232 \$672 \$2 \$1 \$0 \$0 \$0	TOTAL LRAM CLAIM 2010)
Total	1,191,534	203		ļ					\$89,838 \$84,5	525 \$174,364			\$1,391	<u>\$175,754</u>

Kingston Hydro Corporation Filed: 30 September, 2011 EB-2011-0178 Exhibit 9 Page 4 of 4

### 1 **Proposed Rate Riders and Bill Impacts**

Kingston Hydro proposes that amounts claimed under the 2010 LRAM be recovered through
a rate rider as outlined in Table 2 below, and that the LRAM rate rider be implemented
effective May 1, 2012 for a period of one year beginning May 1, 2012 and ending April 30,
2013.

### 6 Table 2 – 2012 LRAM Claim and Proposed Rate Rider

	Residential	General Service <50	General Service >50 to 4,999	Large User	Unmetered Scattered Load	Street Lighting
Annualized Lost	61,037	29,377	84,942	257	141	
Revenue						
Amount						
Recovered						
over 1 yr						
Annual Volume	194,606,36	93,096,7	701,859	297,737	2,275,040	11,336
	2 kWh	84 kWh	kW	kW	kWh	kW
Rate Rider	0.0003	0.003	0.1210	0.0009	0.0001	0.0000
Rate Rider Proce	eds 53,382	27,929	84,925	268	228	
Over(Under) Rec	overy 2,655	1,448	17	(11)	(86)	

8 9

7

10 The total bill impacts of the proposed LRAM rate riders for all rate classes is less than .01% 11 as such Kingston Hydro submits that its LRAM claim in the amount of \$175,754 has a 12 minimal impact on the total bill impacts for the affected rate classes.