



Niagara-on-the-Lake Hydro Inc.

January 28, 2015

Ms. Kirsten Walli, Board Secretary
Ontario Energy Board
P.O. Box 2319
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Via RESS and e-mail

Niagara-on-the-Lake Hydro Inc.
2015 Price Cap IR Distribution Rate Application
Reply to OEB Staff, VECC and Energy Probe Submissions
OEB Case EB-2014-0097

Dear Ms. Walli

Niagara-on-the-Lake Hydro Inc. is pleased to submit its reply to the OEB staff, VECC and Energy Probe submissions regarding its 2015 Rate Application.

We would be pleased to provide any further information or details that you may require.

Yours truly

Timothy B. Curtis, President
Encl.

Cc
David Macintosh and Randy Aiken for Energy Probe
Michael Janigan and Shelley Grice for VECC
Stephen Vetsis, OEB staff

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Reply Submission
2015 Price Cap IR Distribution Rate Application
Niagara-on-the-Lake Hydro Inc.
EB-2014-0097

Introduction

NOTL is replying to the submissions from Board staff, VECC and Energy Probe on the following specific matters:

- i. Rate Generator Model:
 - a. Uniform Transmission Rates
 - b. Price Escalator
- ii. ICM - Incremental Capital Workform:
 - a. Threshold Parameters:
 - i. Price Escalator
 - ii. Growth
- iii. ICM – Incremental Revenue Requirement:
 - a. Depreciation Expense/CCA
- iv. ICM - Incremental Revenue Allocation
 - a. TCP4

A. Rate Generator Model

a. Uniform Transmission Rates

On Page 1 of the Board Staff submission, it states that:

“Board staff submits that the Uniform Transmission Rates (“UTRs”) in NOTL Hydro’s RTSR Workform should be updated to reflect the 2015 UTRs approved in Hydro One Network Inc.’s most recent transmission rate Application (EB-2014-0140).”

NOTL concurs and has updated the rate generator model, Sheet 15, to reflect these new UTR rates as follows:

Uniform Transmission Rates	Unit	Effective January 1, 2013	Effective January 1, 2014	Effective January 1, 2015
Rate Description		Rate	Rate	Rate
Network Service Rate	kW	\$ 3.63	\$ 3.82	\$ 3.78
Line Connection Service Rate	kW	\$ 0.75	\$ 0.82	\$ 0.86
Transformation Connection Service Rate	kW	\$ 1.85	\$ 1.98	\$ 2.00

The resulting revised NOTL RTR rates, from Sheet 23 of the updated rate generator model are as follows (also incorporating the updates in billing determinants submitted in item B ii below):



Ontario Energy Board

Incentive Regulation Model for 2015 Filers

Niagara-on-the-Lake Hydro Inc. - Niagara-on-the-Lake

This sheet lists proposed RTSRs for all classes. No input required.

Rate Class	Rate Description	Unit	Proposed Retail Transmission Rate
RESIDENTIAL	Retail Transmission Rate - Network Service Rate	\$/kWh	0.0076
RESIDENTIAL	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	0.0014
GENERAL SERVICE LESS THAN 50 KW	Retail Transmission Rate - Network Service Rate	\$/kWh	0.0069
GENERAL SERVICE LESS THAN 50 KW	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	0.0014
GENERAL SERVICE 50 TO 4,999 KW	Retail Transmission Rate - Network Service Rate	\$/kW	2.8188
GENERAL SERVICE 50 TO 4,999 KW	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kW	0.4944
GENERAL SERVICE 50 TO 4,999 KW	Retail Transmission Rate - Network Service Rate - Interval Metered	\$/kW	3.0466
GENERAL SERVICE 50 TO 4,999 KW	Retail Transmission Rate - Line and Transformation Connection Service Rate - Interval Metered	\$/kW	1.1890
UNMETERED SCATTERED LOAD	Retail Transmission Rate - Network Service Rate	\$/kWh	0.0069
UNMETERED SCATTERED LOAD	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	0.0014
STREET LIGHTING	Retail Transmission Rate - Network Service Rate	\$/kW	2.1255
STREET LIGHTING	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kW	0.3822

The updated rate generator model is submitted via RESS.

b. Price Escalator

In their submissions, VECC and Energy Probe submit that the updated price escalator of 1.60% released by the Board should be implemented. NOTL concurs. However, it is not possible for NOTL to update the rate generator model for this new value as Cell B15 in Sheet 24 is locked.

B. ICM - Incremental Capital Workform:

a. Threshold Parameters

i. Price Escalator

As mentioned above, in their submissions, VECC and Energy Probe submit that the updated price escalator of 1.60% released by the Board should be implemented in the ICM Workform Threshold Parameters. NOTL concurs and this change results in an updated Price Cap Index calculation of 1.30% in the ICM workform as shown below (and also as provided as Table 3.3 in NOTL's interrogatory response to Energy Probe – 2)

Table 3.3 – Threshold Parameters with Inflation Rate at 1.60%

Threshold Parameters					
Price Cap Index					
Price Escalator (GDP-IPI)		1.60%			
Less Productivity Factor		0.00%			
Less Stretch Factor		-0.30%			
Price Cap Index				1.30%	
Growth					
ICM Billing Determinants for Growth - Numerator :				<u>\$4,481,462</u>	A
ICM Billing Determinants for Growth - Denominator :				<u>\$4,423,271</u>	B
Growth				1.32%	C = A / B

ii. **Growth**

NOTL notes the Board staff position on the data in the growth calculation, and also notes the VECC and Energy Probe position on the data in the growth calculation. VECC and Energy Probe agree that the both the numerator and denominator in the calculation need to be based on the same input value, billed energy by class. Board staff submit that since the 2013 billing determinants are used across the filing modules, such as the RTSR Workform and ICM Workform, they should be consistent. Further they should reflect actual calendar consumption for the calendar year, including adjustments for unbilled amounts. For purposes of clarity, Board staff submits that NOTL Hydro should confirm the correct 2013 billing determinants to be used in its filing modules.

NOTL is submitting the following approach, in which the growth rate remains at 1.32% as per the Application:

- The numerator in the growth calculation in Table 3.3 above is the 2014 rebased forecast revenue (from Sheet B1.4 of the ICM workform). As such, it reflects the estimate of delivered kWh made in the 2014 COS Application, i.e. calendar year consumption.
- The 2013 denominator in the growth calculation should therefore also be based on calendar year consumption, for consistency. The denominator value in the calculation in Table 3.3 above is based on calendar year consumption of 183,801,851 kWh, as indicated on Pages 15 and 16 of the NOTL Manager's Summary, and Table 3.5, reproduced below.

Table 3.5 - 2013 Billing Determinants and Revenue

Load Actual - 2013 Actual												
Rate Class	Fixed Metric	Vol Metric	Billed Customers or Connections			Billed kWh	Billed kW					
			Connections	A	B			C				
Residential	Customer	kWh		7,061	67,855,093		0					
General Service Less Than 50 kW	Customer	kWh		1,226	35,118,069		0					
General Service 50 to 4,999 kW	Customer	kW		127	79,438,754		202,224					
Unmetered Scattered Load	Customer	kWh		22	222,197		0					
Street Lighting	Connection	kW		1,981	1,167,738		3,238					
Load Actual - 2013 Actual												
Rate Class	Fixed Metric	Vol Metric	Billed Customers or Connections			Base Service Charge	Base Distribution Volumetric Rate kWh	Base Distribution Volumetric Rate kW	Service Charge Revenue	Distribution Volumetric Rate Revenue kWh	Distribution Volumetric Rate Revenue kW	Total Revenue by Rate Class
			A	B	C							
Residential	Customer	kWh	7,061	67,855,093	0	\$17.94	\$0.0126	\$0.0000	\$1,519,984	\$854,974	\$0	\$2,374,959
General Service Less Than 50 kW	Customer	kWh	1,226	35,118,069	0	\$37.28	\$0.0112	\$0.0000	\$548,463	\$393,322	\$0	\$941,786
General Service 50 to 4,999 kW	Customer	kW	127	79,438,754	202,224	\$266.42	\$0.0000	\$2.1025	\$404,426	\$0	\$425,176	\$829,602
Unmetered Scattered Load	Customer	kWh	22	222,197	0	\$20.05	\$0.0060	\$0.0000	\$5,172	\$1,333	\$0	\$6,505
Street Lighting	Connection	kW	1,981	1,167,738	3,238	\$7.42	\$0.0000	\$29.0338	\$176,406	\$0	\$94,014	\$270,420
									\$2,654,451	\$1,249,630	\$519,191	\$4,423,271

- NOTL therefore submits that the growth calculation of 1.32% in Table 3.3 above is correct. The resulting Threshold CAPEX is \$1,851,339 as per Table 3.2 in NOTL's interrogatory response to Energy Probe – 2 and reproduced below:

Threshold Test

Year	2014	
Price Cap Index	1.30%	A
Growth	1.32%	B
Dead Band	20%	C
Average Net Fixed Assets		
Gross Fixed Assets Opening	\$ 44,938,119	
Add: CWIP Opening	\$ -	
Capital Additions	\$ 1,285,000	
Capital Disposals	-\$ 477,000	
Capital Retirements	\$ -	
Deduct: CWIP Closing	\$ -	
Gross Fixed Assets - Closing	\$ 45,746,119	
Average Gross Fixed Assets	<u>\$ 45,342,119</u>	
Accumulated Depreciation - Opening	\$ 23,010,427	
Depreciation Expense	\$ 1,005,631	D
Disposals	-\$ 447,000	
Retirements	\$ -	
Accumulated Depreciation - Closing	\$ 23,569,057	
Average Accumulated Depreciation	<u>\$ 23,289,742</u>	
Average Net Fixed Assets	<u>\$ 22,052,377</u>	E
Working Capital Allowance		
Working Capital Allowance Base	\$ 22,105,278	
Working Capital Allowance Rate	11%	
Working Capital Allowance	<u>\$ 2,431,581</u>	F
Rate Base	<u>\$ 24,483,958</u>	G = E + F
Depreciation	D \$ 1,005,631	H
Threshold Test	184.10%	I = 1 + (G / H) * (B + A * (1 + B)) + C
Threshold CAPEX	\$ 1,851,339	J = H * I

- NOTL concurs with Board staff regarding consistency in 2013 billing determinants across filing modules. Specifically, the determinants in Sheet 6 (variance accounts) and Sheet 14 (RTSRs) in the rate generator model should also be calendar year delivered volumes. The “metered kWh” in Sheet 6 are from the 2014 COS Application and as such reflect estimated calendar year volumes. The RTSR data in the 2015 Application were billed data.

Notwithstanding Board staff comments¹ that staff had no concern with the RTSR workform provided with the Application, but recognizing the Board staff comments referred to above regarding consistency, NOTL proposes to replace these Sheet 14 data by calendar year delivered data, as follows and as updated in the uploaded rate generator model.



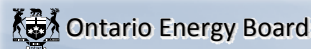
In the green shaded cells, enter the most recent reported RRR billing determinants. Please ensure that billing determinants are non-loss adjusted.

Rate Class	Rate Description	Unit	Non-Loss Adjusted Metered kWh	Non-Loss Adjusted Metered kWh	Applicable Loss Factor	Load Factor	Loss Adjusted Billed kWh	Billed kWh
RESIDENTIAL	Retail Transmission Rate - Network Service Rate	\$/kWh	67,855,093	-	1.0379	-	70,426,801	-
RESIDENTIAL	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	67,855,093	-	1.0379	-	70,426,801	-
GENERAL SERVICE LESS THAN 50 KW	Retail Transmission Rate - Network Service Rate	\$/kWh	35,118,069	-	1.0379	-	36,449,044	-
GENERAL SERVICE LESS THAN 50 KW	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	35,118,069	-	1.0379	-	36,449,044	-
GENERAL SERVICE 50 TO 4,999 KW	Retail Transmission Rate - Network Service Rate	\$/kW	36,248,273	100,252	-	0.00%	-	100,252
GENERAL SERVICE 50 TO 4,999 KW	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kW	36,248,273	100,252	-	0.00%	-	100,252
GENERAL SERVICE 50 TO 4,999 KW	Retail Transmission Rate - Network Service Rate - Interval Metered	\$/kW	43,190,481	90,561	-	0.00%	-	90,561
GENERAL SERVICE 50 TO 4,999 KW	Retail Transmission Rate - Line and Transformation Connection Service Rate - Interval Metered	\$/kW	43,190,481	101,972	-	0.00%	-	101,972
UNMETERED SCATTERED LOAD	Retail Transmission Rate - Network Service Rate	\$/kWh	222,197	-	1.0379	-	230,618	-
UNMETERED SCATTERED LOAD	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	222,197	-	1.0379	-	230,618	-
STREET LIGHTING	Retail Transmission Rate - Network Service Rate	\$/kW	1,167,738	3,238	-	0.00%	-	3,238
STREET LIGHTING	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kW	1,167,738	3,238	-	0.00%	-	3,238

Rate Description	Unit	Non-Loss Adjusted Metered kWh
Retail Transmission Rate - Network Service Rate	\$/kWh	67,855,093
Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	67,855,093
Retail Transmission Rate - Network Service Rate	\$/kWh	35,118,069
Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	35,118,069
Retail Transmission Rate - Network Service Rate	\$/kW	36,248,273
Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kW	36,248,273
Retail Transmission Rate - Network Service Rate - Interval Metered	\$/kW	43,190,481
Retail Transmission Rate - Line and Transformation Connection Service Rate - Interval Metered	\$/kW	43,190,481
Retail Transmission Rate - Network Service Rate	\$/kWh	222,197
Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	222,197
Retail Transmission Rate - Network Service Rate	\$/kW	1,167,738
Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kW	1,167,738

¹ On Page 1 of Board staff submission.

- The resulting updated RTSR rates are as follows:



Incentive Regulation Model for 2015 Filers

Niagara-on-the-Lake Hydro Inc. - Niagara-on-the-Lake

This sheet lists proposed RTSRs for all classes. No input required.

Rate Class	Rate Description	Unit	Proposed Retail Transmission Rate
RESIDENTIAL	Retail Transmission Rate - Network Service Rate	\$/kWh	0.0076
RESIDENTIAL	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	0.0014
GENERAL SERVICE LESS THAN 50 KW	Retail Transmission Rate - Network Service Rate	\$/kWh	0.0069
GENERAL SERVICE LESS THAN 50 KW	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	0.0014
GENERAL SERVICE 50 TO 4,999 KW	Retail Transmission Rate - Network Service Rate	\$/kW	2.8188
GENERAL SERVICE 50 TO 4,999 KW	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kW	0.4944
GENERAL SERVICE 50 TO 4,999 KW	Retail Transmission Rate - Network Service Rate - Interval Metered	\$/kW	3.0466
GENERAL SERVICE 50 TO 4,999 KW	Retail Transmission Rate - Line and Transformation Connection Service Rate - Interval Metered	\$/kW	1.1890
UNMETERED SCATTERED LOAD	Retail Transmission Rate - Network Service Rate	\$/kWh	0.0069
UNMETERED SCATTERED LOAD	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kWh	0.0014
STREET LIGHTING	Retail Transmission Rate - Network Service Rate	\$/kW	2.1255
STREET LIGHTING	Retail Transmission Rate - Line and Transformation Connection Service Rate	\$/kW	0.3822

C. ICM – Incremental Revenue Requirement:

a. Depreciation Expense/CCA

In their submission, Board staff noted that in the Application, NOTL Hydro used the full CCA amount and amortization expense associated with the overall capital cost of the project (i.e. \$2.57M). In response to Energy Probe Interrogatory #6, NOTL Hydro recalculated the incremental revenue requirement using the CCA amounts and amortization expense associated only with the eligible incremental capital amount of \$1.9M. As a result of this change the incremental revenue requirement decreased from \$164,263 to \$160,809. Due to the immaterial nature of the resulting change, Board staff does not see a need for NOTL Hydro to change its proposal. NOTL agrees and proposes to retain use of the full CCA amount and amortization expense as per the Application.

With full CCA and amortization expense and with the updated threshold of \$1,851,339, the total incremental capital amount for the ICM rate rider calculation is \$1,975,661 as shown below.

Summary of Incremental Capital Projects (ICPs)

Calculation of Eligible Incremental Capital Amount				
2015 Non-Discretionary Capital Budget (Including ICM Projects)	\$3,827,000.00	A		
Threshold CAPEX (as calculated on sheet E2.1)	\$1,851,339.00	B		
Eligible Incremental Capital Amount	=	\$1,975,661.00	C = A - B	

Summary of Proposed Incremental Capital Projects				
Number of ICPs 1	Update Sheet			
Project ID	Incremental Capital Non-Discretionary Project Description	Incremental Capital CAPEX	Amortization Expense	CCA
ICP 1	To replace one 25 mVA transformer at MTS#2 with a 50 mVA transformer	\$2,577,000.00	\$53,854.55	\$206,160.00
Total Proposed Incremental Capital CAPEX		\$2,577,000.00	\$53,854.55	\$206,160.00
Total Incremental Capital Amount for ICM Rate Rider Calculation		\$1,975,661.00		

Note: The total incremental capital amount for the ICM rate rider calculation cannot exceed the eligible incremental capital amount.

The resulting incremental revenue requirement calculation is \$166,072 as shown below:

Incremental Capital Adjustment

Current Revenue Requirement

Current Revenue Requirement - Total	\$ 4,483,893
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A

Return on Rate Base

Incremental Capital CAPEX		\$ 1,975,661
Depreciation Expense		\$ 53,855
Incremental Capital CAPEX to be included in Rate Base		\$ 1,921,806
Deemed Short Term Debt %	4.0%	E \$ 76,872
Deemed Long Term Debt %	56.0%	F \$ 1,076,212
Short Term Interest	2.11%	I \$ 1,622
Long Term Interest	4.96%	J \$ 53,382
Return on Rate Base - Interest		\$ 55,004
Deemed Equity %	40.0%	N \$ 768,723
Return on Rate Base - Equity	9.36%	O \$ 71,952
Return on Rate Base - Total		\$ 126,957

B

C

D = B - C

G = D * E

H = D * F

K = G * I

L = H * J

M = K + L

P = D * N

Q = P * O

R = M + Q

Amortization Expense

Amortization Expense - Incremental	C \$ 53,855
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S

Grossed up PIL's

Regulatory Taxable Income	O \$ 71,952
Add Back Amortization Expense	S \$ 53,855
Deduct CCA	\$ 206,160
Incremental Taxable Income	-\$ 80,353
Current Tax Rate (F1.1 Z-Factor Tax Changes)	15.5% X
PIL's Before Gross Up	-\$ 12,455
Incremental Grossed Up PIL's	-\$ 14,739

T

U

V

W = T + U - V

Y = W * X

Z = Y / (1 - X)

Ontario Capital Tax

Incremental Capital CAPEX	\$ 1,975,661
Less : Available Capital Exemption (if any)	\$ -
Incremental Capital CAPEX subject to OCT	\$ 1,975,661
Ontario Capital Tax Rate (F1.1 Z-Factor Tax Changes)	0.000% AD
Incremental Ontario Capital Tax	\$ -

AA

AB

AC = AA - AB

AE = AC * AD

Incremental Revenue Requirement

Return on Rate Base - Total	Q \$ 126,957
Amortization Expense - Total	S \$ 53,855
Incremental Grossed Up PIL's	Z -\$ 14,739
Incremental Ontario Capital Tax	AE \$ -
Incremental Revenue Requirement	\$ 166,072

AF

AG

AH

AI

AJ = AF + AG + AH + AI

D. ICM - Incremental Revenue Allocation

a. TCP4

Board staff, VECC and Energy Probe each submit that the Transformer TCP 4 allocator should be used to allocate the incremental revenue requirement. NOTL agrees to use TCP 4 to allocate the requirement of \$166,072. The resulting rate riders are shown below. The total % costs by rate class in the Table below are the same as in Table 3.9 submitted in NOTL's interrogatory response to Energy Probe -1, which were based on TCP4.

Niagara-on-the-Lake Hydro Inc.

Incremental Revenue Requirement as calculated by ICM Workform and allocated by Transmission Connection Costs

Rate Class	Total % Costs by Rate Class	Allocation of Incremental Revenue Requirement	Billed kWh	Billed kW	kWh Volumetric Rate Rider	kW Volumetric Rate Rider
	Using TCP 4	Total From Sheet E4.1 ICM Workform	From Sheet F1.1 ICM Workform	From Sheet F1.1 ICM Workform		
RESIDENTIAL	29.88%	\$ 49,618.76	67,753,410	-	\$ 0.0007	
GENERAL SERVICE LESS THAN 50 KW	27.86%	\$ 46,268.20	37,260,698	-	\$ 0.0012	
GENERAL SERVICE 50 TO 4,999 KW	42.19%	\$ 70,070.16	-	201,178		\$ 0.3483
UNMETERED SCATTERED LOAD	0.07%	\$ 114.88	240,322	-	\$ 0.0005	
STREET LIGHTING	0.00%	\$ -	-	3,377		\$ -
Total	100.00%	\$ 166,071.99				

- End -