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Tuesday, October 29, 2013

Ontario Energy Board
P.O. Box 2319, 27th Floor
2300 Yonge Street
Toronto, ON
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Attention: Kristen Walli, Board Secretary

Dear Ms. Walli:

Re: North Bay Hydro Distribution Ltd. (EB-2013-0157)
Application for 2014 Electricity Distribution Rates
Responses – VECC Interrogatories

Please find attached a complete copy of VECC's interrogatory responses.

Two hard copies of this submission will be sent via courier. An electronic copy of the response in PDF format will be submitted through the Ontario Energy Board's RESS.

An electronic copy of the response in PDF format will be forwarded via email to the Intervenor as follows:

Donald Rennick

a) Donald Rennick, Independent Participant

Vulnerable Energy Consumers Coalition

a) Michael Janigan, Public Interest Advocacy Centre

b) Shelley Grice, Econalysis Consulting Services

Yours truly,

Original signed by

Melissa Casson, CGA
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VECC Question # 1

Reference: Appendix J, Page 1

Preamble: The cost recovery is based on actual audited costs incurred to the end of 2012, actual costs to June 2013 and forecasted costs for the remainder of 2013 and 2014.

a) Please provide the percentage of audited costs.

Response:

Approximately 87% of the costs included in the smart meter application are audited – this represents costs to December 31, 2012.

b) Please provide a breakdown of 2013 costs between actual (to June 2013) and forecast.

Response:

Actual costs from January to June 2013 are \$488,359 and forecasted costs from July through December are \$2,938. Actual costs relate to the purchase of 3 phase self-contained meters.

c) Please provide a breakdown of 2013 smart meter installations by customer class between actual (to June 2013) and forecast.

Response:

The breakdown of 2013 smart meter installations by customer class between actual (to June 2013) and forecast is as follows:

Customer Class	Actual (Jan~Jun)	Forecast (Jul ~ Dec)	Total Meters Installed - 2013
Residential	174	-	174
GS <50 kW	349	477	826
	523	477	1,000

VECC Question # 2

Reference: Appendix J, Page 5

Preamble: The evidence states “Util-Assist also worked closely with Sensus to evolve their collector system to handle the geographic challenges of NBHDL’s service territory.”

- a) Please discuss if the geographical challenges of NBHDL’s service territory are similar to the other District 9 distributors.

Response:

NBHDL is not aware of the details of other District 9 distributors’ unique geographical challenges.

VECC Question # 3

Reference: Appendix J, Page 3

Preamble: The application states “NBHDL incurred smart meter OM&A costs in 2012 and has on-going and forecasted costs related to smart meters throughout 2013 and 2014, however, NBHDL has absorbed these costs in the normal business operations of the company and is not seeking cost recovery for these costs.

- a) Please explain the nature of the on-going OM&A costs and where they are absorbed in normal business operations.

Response:

The on-going OM&A costs for smart meters include the costs of the TGBs, Metro units, FlexNet licencing and the costs of the ODS.

Please see Board Staff interrogatory question # 3 b) with regards to where costs are absorbed in normal business operations.

VECC Question # 4

Reference: Appendix J, Page 5

Preamble: The application states “Util-Assist helped with MDM/R integration in 2011 and continues to work with NBHDL today on process efficiency improvements.”

- a) Please discuss any process efficiency improvements and cost savings and indicate how the savings are reflected in the current application.

Response:

Util-Assist provided guidance and consulting on data preparation for the MDM/R integration and testing. Training was provided on the intricate tasks that allowed NBHDL to pass SIT (system integration testing), QT (quality testing), and the cut-over to TOU and NBHDL was able meet the mandated cut-over date without requesting an extension from the OEB. NBHDL was able to transition the bulk of the customers to TOU in one phase saving time and resources as compared to the staged approach undertaken by many utilities. Util-Assist also provided significant assistance in addressing the issues of Read Interval Success (RIS) and worked closely with NBHDL to better understand and isolate the problems with AMI communications. NBHDL continues to work with Util-Assist on improvements in various processes in the billing department.

While NBHDL has been able to leverage efficiency improvements these do not translate to specific identifiable cost savings that have been reflected in the current application. The efficiencies gained have enabled NBHDL to focus resources on other important tasks in the business and while some analogous OM&A expenses (e.g. meter reading) have been reduced these have not fully offset the on-going costs of the smart meters.

VECC Question # 5

Reference: Appendix J, Page 4

Preamble: NBHDL indicates in its 2011 Decision and Order (EB-2010-0102), NBHDL received approval from the Board to continue the 1.47 per metered customer per month smart meter funding adder.

a) Please confirm the date the \$1.47 SMFA ceased.

Response:

The SMFA of \$1.47 ceased on April 30, 2012.

VECC Question # 6

Reference: Appendix J, Page 8

Preamble: NBHDL states "Fortunately through this period technology evolved and Sensus developed a more portable TGB which became known as a Metro. This technology became the solution in rugged terrain. Some of the Metro locations were in remote areas and the electrical distribution grid had to be extended in some situations to provide service.

- a) Please provide a breakdown and explanation of the costs in this application by year to extend the electrical distribution grid (based on the cost categories from the smart meter model).

Response:

Please see Board Staff interrogatory question # 5.

- b) Please provide other distributors that NBHDL is aware of that are using portable TGB (Metro) technology.

Response:

NBHDL is unaware of other distributors that are using the TGB technology; this solution was customized to best address NBHDL's communication issues related to the terrain.

VECC Question # 7

Reference: Appendix J, Page 8

Preamble: The evidence states “Based on experience, if RIS drops below 98%, NBHDL loses TOU quality billing data on remote meters resulting in cascading problems with routine billing processes. Over the past six months the collector system has stabilized and performed very reliably.”

- a) Please discuss how often the RIS drops below 98% by year and the number of meters affected.

Response:

Between commissioning the system in 2009 and until changes were made in August 2012 RIS was consistently below 98% and approximately 700 meters were affected. RIS has been above 98% since the additional metro units were fully deployed and NBHDL now has back-up capability for an additional 600 meters.

VECC Question # 8

Reference: Appendix J, Page 8

Preamble: NBHDL researched the effort required and costs associated with the mass deployment and concluded that the most cost-effective approach to install the required meters was to utilize a third-party contractor.

a) Please provide the cost differential between a third-party contractor and other options.

Response:

NBHDL paid Olameter approximately \$210,000 to perform the mass installation of approximately 20,000 meters at an average cost per meter of \$10.50 per meter. At the time of installation, NBHDL only had one staff member in the metering department and given the time required to install the smart meters it was not feasible for NBHDL to perform this task internally. Olameter had performed mass deployments of smart meters at several utilities prior to assisting NBHDL and had gained considerable and valuable experience in the field. NBHDL benefited from the inherent efficiencies with having such experienced and dedicated external resources handle the installs with the added advantage of a high degree of quality assurance and an excellent safety record.

VECC Question # 9

Reference: Appendix J, Page 8

Preamble: The application indicates NBHDL staff was used on difficult installations where there were access problems, safety concerns or significant customer issues.

- a) Please provide the number and percentage of residential and GS<50 kW smart meter installations that were difficult installations.

Response:

NBHDL did not track difficult installations separately from the mass deployment of meters, neither the exact number nor the customer class. NBHDL estimates that there were approximately 100 meters that were considered difficult installations.

- b) Please provide the incremental cost by customer class for difficult installations and include the calculation.

Response:

Please see response to 9 a). NBHDL did not track these costs separately.

VECC Question # 10

Reference: Appendix J, Page 8

- a) Please complete the following table to show the average installed cost by meter type and customer class.

Class	Type of Meter	Quantity	Installed Cost	Average Costs
Residential				
GS<50 kW				

Response:

For the GS <50 kW class, NBHDL believes this information is provided in Board Staff interrogatory # 7 c). As is noted in the response to Board Staff's interrogatory, NBHDL noted that there was an error inadvertently included in the calculation with regards to meter quantities. The meter quantity of GS <50 kW customers was understated by approximately 40 meters and a revised average cost was provided with the interrogatory response. A similar error was found in the calculation of the average cost per meter for residential meters. While NBHDL deems this discrepancy immaterial, the average cost has been revised and is provided below. It is important to note that the installation costs included in the calculation relate to 3rd party costs incurred by NBHDL for the mass deployment of smart meters. The bulk of residential meters were installed by Olameter and as such very little internal labour costs were included as incremental costs.

Meter Type	Qty	Cost/Mtr	Total Cost
TX Rated Single Phase	111	\$ 143.09	\$ 15,861.03
Icon A 2S	20,009	\$ 79.02	\$ 1,581,026.17
Network 1200	947	\$ 167.33	\$ 158,460.53
Single Phase 120V	12	\$ 144.75	\$ 1,668.92
3PH Self-Contained	174	\$ 477.50	\$ 83,084.37
	<u>21,252</u>		<u>\$ 1,840,101.02</u>
Installation Cost			\$ 208,706.87
Total Residential Meter Costs			\$ 2,048,807.89
# of Meters			21,252
Average Cost per Meter - Residential Meters			\$ 96.40

VECC Question # 11

Reference: Appendix J, Page 20

Preamble: The evidence states "With regards to rate class allocation NBHDL has determined the average installation cost of a Residential smart meter is \$96.90 and the average installation cost of a General Service < 50 kW smart meter is \$226.01.

a) Please provide the calculations to support the average installation costs referenced above.

Response:

Please see the response to interrogatory # 10 a) for the calculations that support the average installation costs. The calculations to support the average installation costs have changed and no longer support the installation costs stated in the preamble.

VECC Question # 12

Reference: Appendix J, Page 20

Preamble: NBHDL states that when these values are applied to 21,045 installed Residential smart meters and 2,629 installed General Service < 50 kW smart meter the resulting rate class weighed smart meter costs are 77% Residential and 23% General Service < 50 kW.

- a) Please explain what the 21,045 installed residential and 2,639 GS<50 kW installed smart meters is based on.

Response:

The 21,045 installed residential and 2,639 GS<50 kW installed smart meters referenced on page 20 were calculated incorrectly and should have been based on the total number of meters installed as of December 31, 2013. As referenced in interrogatory # 10 a) NBHDL discovered an error in the determination of meter quantities by class that was used to determine both the average cost per meter per class and the overall cost weighting used to calculate the SMDR and SMIRR. The correct number of meters should have been the total number of meters installed as at December 31, 2013 - 21,252 residential smart meters and 2,669 GS<50 kW smart meters. NBHDL believes that this variance is immaterial and does not require the smart meter application to be revised. A table showing both the application as submitted (using the original average cost per meter and the associated rate class weighting) and the revised calculation with the correct meter quantities for average cost and rate class weighting determination is shown below.

VECC Question # 12 Con't

	Per Application		Revised Avg Cost / Mtr Qty	
	Residential	GS <50 kW	Residential	GS <50 kW
Average Cost / Meter	\$ 96.90	\$ 226.01	\$ 96.40	\$ 224.44
Meters Installed	20,871	2,629	21,252	2,669
Total Cost / Meter	\$ 2,022,469	\$ 594,170	\$ 2,048,808	\$ 598,957
Weighting / Class	77.29%	22.71%	77.38%	22.62%
Return on Capital	\$ 736,001			
Dep'n & Interest	\$ 914,698			
PILS	\$ 137,509			
ROC / Class	\$ 568,875	\$ 167,126	\$ 569,509	\$ 166,493
Dep'n & Interest / Class	\$ 706,994	\$ 207,704	\$ 707,782	\$ 206,916
OM&A / Class	\$ 372,235	\$ 46,748	\$ 372,235	\$ 46,748
Revenue Requirement	\$ 1,648,104	\$ 421,579	\$ 1,649,525	\$ 420,157
PILs	\$ 109,499	\$ 28,009	\$ 109,594	\$ 27,915
Total Revenue Requirement	\$ 1,757,603	\$ 449,588	\$ 1,759,119	\$ 448,072
Less: SMFA	\$ 1,432,219	\$ 200,090	\$ 1,432,219	\$ 200,090
Net Deferred Revenue Requirement	\$ 325,384	\$ 249,498	\$ 326,900	\$ 247,982
	21,252	2,669	21,252	2,669
SMDR / customer / class	\$ 1.28	\$ 7.79	\$ 1.28	\$ 7.74

VECC Question # 13

Reference 1: Appendix J, Appendix 2 Smart Meter Model (V4)

Preamble: NBHDL completed the Smart Meter Model to calculate the proposed Smart Meter Disposition Rate Rider (SMDR) and proposed Smart Meter Incremental Rate Rider (SMIRR).

Reference 2: Board Guideline G-2011-0001, Smart Meter Funding and Cost Recovery – Final Disposition, dated December 15, 2011, Page 19.

Preamble: The Guideline states, “The Board views that, where practical and where data is available, class specific SMDRs should be calculated on full cost causality.

- a) Please discuss if NBHDL kept records by class and if accounts 1556 and 1555 are segregated by rate class? If not, why not?

Response:

NBHDL segregated capital and OM&A costs in 1555 and 1556, but did not track the costs to a specific service location and installation in order to provide class distinctions as this was not practical.

- b) Please complete a separate smart meter revenue requirement model by customer class based on full cost causality by rate class. Please provide live smart meter models.

Response:

As indicated in the response to Question # 13 a) NBHDL did not track costs by rate class in accounts 1556 and 1555, however, NBHDL maintains that the calculated rate riders have been appropriately calculated using a Board approved methodology and believes that the proposed results are fair and reasonable for all affected customer classes and address cost causality principles.

- c) Please summarize the updated SMDRs and SMIRRs by customer class based on the results of part (c).

Response:

Please see NBHDL's response to interrogatory # 13 a).

VECC Question 13 Con't

d) Please provide the SMFA amounts collected by rate class.

Response:

The SMFA amounts collected by rate class are as follows:

Class	Amount
Residential	1,323,383
GS <50 kW	170,866
GS >50 kW	17,126
Intermediate	127
Sentinel Lights	1,467
Street Lights	13,888
Total SMFA	\$ 1,526,856

VECC Question # 14

Reference: Appendix J, Smart Meter Model, Tab 2 Smart Meter Costs

- a) For 2013, 174 residential and 826 GS<50 kW smart meter installations are shown. Please confirm the type of meters and quantity of each to be installed by customer class.

Response:

NBHDL confirms 174 residential meters and 826 GS <50 kW meters for 2013 installations; all meters are 3 phase self-contained meters.

- b) Please provide an explanation of costs in 2012 for 1.5.6 Other AMI Capital – Other Equipment.

Response:

Please refer Board Staff interrogatory question # 5.

- c) Please specify the costs in 2011 for 2.5.6 Other AMI Expenses.

Response:

The costs in 2011 for 2.5.6 Other AMI Expenses of \$32,822.88 represent costs related to the initial start-up and use of an operational data storage (ODS) in order for NBHDL to integrate data with the MDM/R.

- d) Please explain why NBHDL does not show costs for capital and OM&A costs beyond minimum functionality (1.6.3 & 2.6.3) related to costs for TOU rate implementation, CIS system upgrades, web presentation, integration with MDM/R when these costs were incurred.

Response:

NBHDL has only sought recovery of incremental costs specifically incurred for the successful implementation of smart meters and believes that those costs support the minimum functionality requirement. Changes to the classification of costs would not result in an adjustment to the net deferred revenue requirement and the corresponding SMDR and SMIRR rates that NBHDL has requested.