

Response to VECC Interrogatories 2012 Smart Meter Cost Disposition and Recovery EB-2012-0036

VECC Question # 1

Reference: Manager's Summary, 1. Introduction, Page 3

Preamble: NOTLHI indicates it is requesting the difference between the Deferred Incremental Revenue Requirement from 2006 to December 31, 2011 and the Smart Meter Funding Adder (SMFA) Revenues collected from 2006 to May of 2012. The Board indicated the SMFA would cease by April 30, 2012. VECC notes on Sheet 8 of the Smart Meter Model, the interest on the SMFA revenues is calculated to December 2012.

- a) Please confirm when NOTLHI's SMFA ended and explain the interest calculation beyond this date.

Response 1

a)

NOTL confirms the SMFA will cease by April 30, 2012 per the submitted model (i.e. cells K100 to K107 in sheet 8 are left empty).

The interest calculation is driven by the locked formulae in cells M100 to M107 of the OEB model, which correctly compute carrying charges on the principal balance of the revenue account at the end of each prior month.

VECC Question # 2

Reference: Manager's Summary, 2. Status of Implementation of Smart Meters, Page 4

Preamble: NOTLHI has installed a total of 7913 smart meters as of December 31, 2011, which represents 99.9% of the total RPP-eligible customers.

- a) Please provide the average cost per meter by year and by rate class on a total cost basis (capex + opex) and capex only.
- b) Please indicate if NOTLHI has provided the Board with estimated smart meter costs in prior rate applications. If yes, please provide a schedule that compares the smart meter forecasts in the previous applications to the current application.

Response 2

a)

We are unable to provide a breakdown by rate class (see NOTL's response to OEB staff IR 13a).

Although mathematical calculations of annual costs (capex + opex and capex only) divided by installed meters by individual year could be done using the data in the Smart meter model, NOTL submits that such yearly calculations would not provide a meaningful result due to the many timing differences involved in the project. The overall project cost per meter as presented in the OEB staff IR8 is more relevant.

b)

We are not aware of any prior cost forecasts submitted to the Board.

VECC Question # 3

Reference: Manager's Summary, 5. Project Specifics, Page 6

Preamble: The evidence indicates that Sensus did not manufacture polyphase meters, therefore requiring NOTLHI to place special orders with General Electric and Elster. A majority of these polyphase meters were received later in 2010. NOTLHI employees and a local installer have installed the remainder of the commercial and polyphase meters to date.

- a) Please discuss how this situation impacted meter deployment.
- b) Please confirm the number of meters placed by special order with General Electric and Elster.
- c) Please compare the installation costs, other capital costs and OM&A costs separately for Olameter, NOTLHI employees and a local installer and explain any variances. Please identify the local installer.

Response 3

a)

The purchase of polyphase meters was generally delayed until 2011 at which time General Electric and Elster were able to achieve Measurement Canada approval on meters with the Sensus Flexnet component. Since these meters involved the collaboration of two companies, they were comparatively higher than expected.

b)

- *Elster – 92,*
- *General Electric – 14,*
- *Elster (through KTI/Sensus) – 225.*

See response to Board staff question 8b) for additional details.

c)

Breakdown is noted in Smart Meter Cost Summary Addendum 9 in the application. Tim Maxim is the local installer. All installation costs for the three parties were capitalized

(no OM&A). Olameter was tasked with the mass installation and tackled the single phase 'S' base meters (considered to be "quick and simple"). Tim Maxim completed the difficult polyphase installations that exceeded our in-house expertise. NOTL Hydro employees completed the remainder of the installations mostly requiring some added expertise or customer appointments for indoor meter locations.

VECC Question # 4

Reference: Manager's Summary, Meter Deployment, Page 5

- a) Please summarize the types of meters installed for each rate class.
- b) Please complete the following table to show the average installed cost per meter type.

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

Response 4

a)

- Residential – form 1S, 2S, 3S and 12S (network)
- General Service <50 – form 2S, 3S, 9S, 12S, 12S network, 16S

b)

The cost per individual meter type was never tracked and we are unable to provide such a breakdown. The actual installed numbers of each meter type at time of rate filing was as follows;

- Form 1S = 4,
- 2S = 7,254
- 3S = 243
- 12S (network) = 193
- 9S = 53
- 12S (600V) = 9
- 16S = 227

VECC Question # 5

Reference: Manager's Summary, 8. Integration with MDM/R, Page 8

Preamble: NOTLHI indicates the project plan called for Unit Testing to be executed on January 17, 2011 but due to some delays was completed on March 7, 2011, and System Integration (SIT) and Qualification Testing (QT) on May 2, 2011, in preparation for cutover to live data transfer with MDM/R by May 2, 2011.

- a) Please provide specific details on the nature of the delays related to various software systems delivering the promised functionality and suppliers meeting their contractual obligations.

Response 5

a)

The delay was mutually agreed upon with the MDM/R and to our knowledge did not breach any contract or result in any additional costs incurred.

VECC Question # 6

Reference: Manager's Summary, 9. Transition to Time of Use Pricing, Page 9

Preamble: NOTLHI indicates that the first TOU invoices were issued mid-October and as of year-end, approximately 96% of eligible customers are receiving TOU bills.

a) When does NOTLHI expect that 100% of eligible customers will receive TOU bills.

Response 6

a)

We were advised in late summer 2011 that the Elster polyphase meters had a software 'glitch' and could not be utilized for TOU billing until a Measurement Canada general approved update was performed. This update was completed in late January, 2012 by a combination of Sensus 'over the air' signals and our employees 'on-site' routine. All 280+ customers with this meter type will receive their first TOU bill before mid-April 2012. This will leave approximately six particularly challenging accounts such as 'summer seasonal' or indoor with appointments that we hope to complete later this spring.

VECC Question # 7

Reference: Manager's Summary, 12. Annual Security Audit, Page 10

Preamble: NOTLHI indicates with the mass deployment of AMI systems, security of the AMI network is critical.

- a) Please provide the status of the selection of the audit partner and the in-depth security review at one participating utility that has the Sensus solution, the commencement date of the annual security audit for NOTLHI and the annual budget for the audit.

Response 7

a)

The LDC partners and audit selection process is outlined in Addendum 6 and was completed in late 2010. Though now removed from the record, Addendum 10 included the statement of work by Bell/Wurldtech which primarily took place in 2011. As the collection of AMI data and push to the 'head end' is virtually identical for all LDC partners (including NOTL), we understand that the Powerstream system was the representative LDCs for local infrastructure testing while the Sensus Ontario RNI facility (for 27 LDCs) was tested as the common head-end infrastructure. The final phase of the audit conducted in 2012 will focus on a remediation plan in response to Bell/Wurldtech recommendations. Our annual budget is listed in Addendum 9.

VECC Question # 8

Reference: Manager's Summary, 14. New CIS System, Page 12

Preamble: NOTLHI indicates the overall cost of UCS membership, conversation and operation to date has exceeded the estimated COS overhaul cost.

- a) Please provide the original budget and schedule, a cost/schedule comparison between the two overhaul cost options and explain any variances in costs and schedule.

Response 8

a)

The total contract price from Harris Computer Corporation for Northstar, the CIS system used by UCS group members, was \$190,140 plus out-of-pocket expenses. The actual invoiced costs were as per the contract. Northstar was in place effective February 1, 2010.

The Northstar cost exceeded the COS proposal of \$170,000. [The reference to "exceeded" in the Manager's Summary was not meaning a cost over-run.] The COS proposal was not acceptable for the reasons set out in NOTL's response to OEB staff IR5. However, an amount of only \$170,000 was considered appropriate to include in the application, using the COS quote as the basis.

VECC Question # 9

Reference: Manager's Summary, 14. Web Presentment, Page 13

Preamble: NOTLHI indicates it expects to have the tool available for customer use in the first quarter of 2012 and the listed capital cost is \$15,896. The annual operating cost is forecast as \$3,622.

- a) Please provide an update on the availability of the tool and the capital and operating costs.

Response 9

a)

As stated in the Manager's Summary, NOTL is implementing the tool in conjunction with the UCS group. Harris is installing the tool for UCS members according to a phased LDC-by-LDC schedule. We have been advised by Harris that NOTL's installation will now occur in the second quarter. We expect to have tool available by the end of May.

The listed capital cost and annual (i.e. full-year ongoing) operating cost have not changed. The 2012 part-year operating cost reflecting the currently expected implementation timing will be $\$3,622 \times 7/12 = \$2,113$ for June to December. However, in the model (Sheet 2, column S, "2012 and Later"), the value \$3,622 is retained to reflect the ongoing nature of this cost in later years.

VECC Question # 10

Reference: Manager's Summary, 14. Internal (Incremental) Labour, Page 13

Preamble: Incremental employee time recorded as \$82,583 was utilized in implementation of TOU rates, the testing and integration to the MDM/R and further MDM/R R7.2 testing that was just recently completed.

- a) Please discuss “incremental employee time” and show the derivation of the \$82,583 in terms of hours, positions (contract, part-time, full-time) and work activities.

Response 10

“Incremental employee time” refers to capital expenditures incurred by staff working on the Smart Meter project that are not reflected in NOTL’s rate base approved in the 2009 cost of service application.

The derivation of the \$82,853 is presented below. The data are as recorded in NOTL's payroll system based on employee weekly timesheets. Overtime hourly pay rates are 2 x regular hourly rates in accordance with the Collective Agreement.

Derivation of \$82,583							
2010		Hours			Cost		
Position*	Union	Regular	Overtime	Total	Regular	Overtime	Total
Customer Accounts Representative	Yes	19.66	0.00	19.66	\$ 706	\$ -	\$ 706
Engineering Technologist	Yes	0.00	0.00	0.00	\$ -	\$ -	\$ -
Billing Supervisor	No	115.50	0.00	115.50	\$ 5,664	\$ -	\$ 5,664
Total		135.16	0.00	135.16	\$ 6,371	\$ -	\$ 6,371
(*All regular full-time staff)							
2011							
Position*	Union	Regular	Overtime	Total	Regular	Overtime	Total
Customer Accounts Representative	Yes	349.50	69.25	418.75	\$ 11,884	\$ 4,623	\$ 16,508
Engineering Technologist	Yes	790.00	195.50	985.50	\$ 38,674	\$ 17,670	\$ 56,344
Billing Supervisor	No	56.00	0.00	56.00	\$ 2,801	\$ -	\$ 2,801
Total		1,195.50	264.75	1,460.25	\$ 53,360	\$ 22,293	\$ 75,653
Total							
Position*	Union	Regular	Overtime	Total	Regular	Overtime	Total
Customer Accounts Representative	Yes	369.16	69.25	438.41	\$ 12,591	\$ 4,623	\$ 17,214
Engineering Technologist	Yes	790.00	195.50	985.50	\$ 38,674	\$ 17,670	\$ 56,344
Billing Supervisor	No	171.50	0.00	171.50	\$ 8,465	\$ -	\$ 8,465
Total		1,330.66	264.75	1,595.41	\$ 59,730	\$ 22,293	\$ 82,023
UCS training**							\$ 560
(** Should have been included under Utilassist/UCS vendor column in Smart Meter Cost Summary, not in the Internal Costs column).							\$ 82,583

The activities involved are explained as follows:

NOTL Hydro began migration to the Harris Northstar CIS system in early 2010 in advance of the mass installation of smart meters. The project lead was assigned to the Billing Supervisor. The Billing Supervisor was also involved in the testing and implementation of MCare, the workforce management system utilized to automate the process of attaching customer accounts to the mass installed the smart meters in early 2010.

The MDM/R testing and integration was assigned to a team consisting of an Engineering Technologist and Customer Account Representative. The tasks and completion dates of this team are listed below;

<u><i>MDM/R Activity</i></u>	<u><i>Completion Date</i></u>
<i>1. AMCC Internal Testing</i>	<i>January 13, 2011</i>
<i>2. CIS Internal Testing</i>	<i>August 4, 2010</i>
<i>3. MDM/R Registration Application submitted</i>	<i>July 27, 2010</i>
<i>4. Enrolment Wave requested and confirmed</i>	<i>February 3, 2011</i>
<i>5. Unit Testing</i>	<i>January 8, 2011</i>
<i>6. Submitted a completed Self Certification for Enrolment Testing</i>	<i>February 21, 2011</i>
<i>7. System Integration Testing (SIT)</i>	<i>May 6, 2011</i>
<i>8. Qualification Testing (QT)</i>	<i>June 7, 2011</i>
<i>9. Self Certification – Cutover</i>	<i>June 13, 2011</i>
<i>10. Transition to Production Operations</i>	<i>October 20, 2011</i>
<i>11. MDM/R Version 7.2 Testing Certification</i>	<i>January 3, 2012</i>

VECC Question # 11

Reference: Manager's Summary, 16. Smart Meter Rate Rider, Page 15

Preamble: NOTLHI indicates that allocation of the total revenue requirement is based on allocation of the return and amortization based on the allocation of Account 1860 in the cost allocation model.

a) Please confirm the year of the cost allocation model used.

Response 11

a)

The cost allocation model used was for the year 2006, which was also used in NOTL's most recent cost of service rebasing (2009).

VECC Question # 12

Reference 1: Smart Meter Model (V2_17)

Preamble: NOTLHI completed the Smart Meter Model provided by the OEB and used the data to arrive at the proposed Smart Meter Incremental Rate Rider and the proposed Smart Meter Disposition Rate Rider.

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 complete a separate smart meter revenue requirement model by rate class.
- b) Please recast Tables 5, 6 and 7 by customer class based on customer class cost causality as per part (a).
- c) Please provide a table that summarizes the total Smart Meter Rate Adder Revenue collected by customer class.

Response 12

a)

NOTL submits that there has been no clear requirement to track costs or rate adder revenue by class and NOTL has therefore not done so. Thus, the required data is not available and separate revenue requirement models by rate class are not practical.

b)

Not applicable – see a)

c)

Not applicable – see a)

VECC Question # 13

Reference: Board Guideline G-2011-0001, Smart Meter Funding and Cost Recovery – Final Disposition, dated December 15, 2011, Cost Beyond Minimum Functionality, Page 17

Preamble: The Guideline indicates that costs for TOU rate implementation, CIS upgrades, web presentation, etc. may be recoverable and that in its application a distributor should show how these costs are required for its smart meter deployment program and how they are incremental to the distributor's normal operating costs. Sheet 2 of the Smart Meter Model shows audited costs under Capital Costs Beyond Minimum Functionality (category 1.6.3) & OM&A Costs Beyond Minimum Functionality (category 2.6.3).

a) Please demonstrate how these costs are incremental to normal operating costs.

Response 13

a)

Our application includes two components in 1.6.3 (Capital) namely, incremental labour and CIS upgrades. As described in detail in our application, a new TOU-ready CIS system was required to accommodate mandated TOU billing. Our previous CIS vendor had quoted \$170,000 to upgrade our system but we had little faith in the company's ability to deliver the product on time, on budget and with the required functionality. A web presentment tool designed to deliver the requirements specified by the Ministry for smart meters is also included in our application. The incremental labour is entirely related to the additional costs of implementing the smart meter system over and above our normal operating costs.

Had we not implemented a smart meter system, we would not have required a daily 'synch' MDM/R operator services, smart meter consultants, AS2 hosting service, an ODS as well as a web presentment tool annual maintenance fee as listed in 2.6.3 (operating). These charges are new/additional costs to our normal operating costs. This section also includes a credit for manual meter reading savings which are the result of implementing a smart meter system.

VECC Question # 14

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

Preamble: The Guidelines state, "The Board also expects that a distributor will provide evidence on any operational efficiencies and cost savings that result from smart meter implementation."

a) Please summarize NOTLHI's operational efficiencies and cost savings.

Response 14

a)

We have not recognized any notable operational efficiencies. In fact, the AMI system has introduced a new level of complexity and cost to our business such as daily synchronization with the MDM/R. The only identifiable cost offset is the reduction of contracted manual reading costs provided in our application.