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July 20, 2012

Vulnerable Energy Consumers Coalition
c/o Public Interest Advocacy Centre
One Nicholas Street, Suite 1204
Ottawa, Ontario
K1N 7B7

Via Email Only

Attention: Mr. Michael Janigan, Counsel, mjanigan@piac.ca

Dear Mr. Janigan:

Re: November 1, 2012 Smart Meter Disposition Interrogatory Response EB-2012-0266

Waterloo North Hydro Inc. (WNH) hereby submits its Response to the July 9, 2012 Vulnerable Energy Consumers Coalition Interrogatories. WNH has also attached its Response to the Board Staff Interrogatories of July 9, 2012.

WNH has previously forwarded the PDF version and an Excel File containing Interrogatory Responses and the Smart Meter Model via the Board's web portal.

If there are any questions, please contact Chris Amos at 519-888-5541, camos@wnhydro.com or myself at 519-888-5542, asingh@wnhydro.com.

Yours truly,

Original Signed By

Albert P. Singh, MBA, CGA
Vice-President, Finance and CFO

cc. Ms. Shelley Grice shelley.grice@rogers.com

**Waterloo North Hydro Inc.
2012 Smart Meter Cost Recovery
EB-2012-0266**

Interrogatory Responses to Vulnerable Energy Consumers Coalition (VECC)

VECC Question # 1

Reference: Application, Page 8, Smart Meter Procurement, London Hydro RFP

Preamble: Waterloo North Hydro indicates it is authorized to procure and deploy smart meters pursuant to the London Hydro RFP process.

- a) Please summarize any operational efficiencies and cost savings that result from participating in the London RFP process.***

The London RFP process was a government mandated process. The Integrity Commissioner was assigned to the process and approved that the process met the conditions of Fairness.

WNH is unable to quantify all costs savings. The main operational efficiencies and cost savings that resulted from participating in the London RFP process were achieved during the development of the specification and procurement documents. A joint group effort was used to develop the RFP and evaluate the vendors' responses.

VECC Question # 2

Reference: Application, Page 11, Status of Smart Meter Time of Use Implementation

Preamble: In Table 4, Waterloo North provides a summary of the smart meters installed by year.

- a) ***Please provide a schedule that compares the smart meter financial forecasts (capital & OM&A) in Waterloo North Hydro's previous applications to the current application and explain any variances greater than 5%.***

WNH stated on Page 16 of its Application "WNH has not previously applied to the Board for partial recovery of its smart meter costs after installation of 50% of the meters. Accordingly, a variance analysis comparing actual costs to previously-approved recovery of costs has not been performed"

WNH provided an estimate of its Smart Meter Costs in response to Board Staff IR # 9 in its 2012 IRM Rate Application (EB-2011-0201). WNH has provided a table below which compares the IR # 9 Response Costs to this current application and the resulting variances. As is demonstrated in the table, the variances do not exceed 5%, thus, no further explanations have been provided.

IR # 2a - Comparison of Smart Meter Cost Forecasts

Application	Capital	OM&A	Total
Response to Boards Staff IR # 9 in 2012 IRM Application EB-2011-0201	9,573,779	536,839	10,110,618
Smart Meter Disposition Application EB-2012-0266	9,500,731	531,849	10,032,580
Variance \$	\$ (73,048)	\$ (4,990)	\$ (78,038)
Variance %	-0.76%	-0.93%	-0.77%

- b) ***Please provide a summary of incremental internal labour costs incurred by the Applicant to deploy smart meters in terms of positions, contract type (permanent vs. temporary, part-time vs. full-time), length of employment and work activities.***

WNH has presented the internal labour costs incurred in the following tables.

Table IR # 2b – Capital Internal Staffing Costs

Section	Year	Supervision - Metering & Stations - FT - hired pre-2005		Meter Installer/Technician - FT - hired pre-2005		Line Staff - FT - hired pre-2005		Line Staff - FT - hire post-2004		Engineering Staff - hired pre-2005		Contract Staff - Temporary		Eng/Co-op Students - Temporary		IT Staff hired post-2004, FT		Total \$ *	OT
		Total \$ *	OT	Total \$ *	OT	Total \$ *	OT	Total \$ *	OT	Total \$ *	OT	Total \$ *	OT	Total \$ *	OT	Total \$ *			
Total By Year	2008	9,721	-	35,204	5,053	4,181	170	568	-	-	-	21,407	-	-	-	103		71,184	5,223
	2009	4,734	61	141,779	9,379	12,262	349	1,661	-	-	-	20,937	-	-	-	-		181,374	9,789
	2010	35,211	-	297,402	89,635	23,930	513	903	-	335	-	15,941	-	1,493	524	-		375,214	90,672
	2011	42,441	-	141,394	51,117	3,378	144	5,772	630	-	-	-	-	1,142	787	-		194,127	52,678
Total		92,107	61	615,779	155,183	43,750	1,176	8,904	630	335	-	58,285	-	2,634	1,311	103		821,899	158,361
Work Activity		Implementation and Installation Activities		Implementation and Installation Activities		Installation of Meters/Disconnect/Reconnect Meter to facilitate installation/Isolate power so electricians could repair meter bases/TGB Installation		Implementation Activities		Installation of Meters and IT Programming		Assist in Preparation to Install Meters		IT Programming					

* Total includes Overtime
OT = Overtime
FT = Full Time Permanent

Table IR # 2b – OM&A Internal Staffing Costs, including Expenses

2010	2011	2012 and Later
\$ 29,190	\$ 95,982	\$ 96,500

As noted on page 11 of WNH's application "Projected 2012 operating costs include ... an incremental Settlement Analyst staff position to administer the Smart Meter and TOU programs. WNH notes that this staff position was created in September 2010 solely due the installation of Smart Meters and implementation of TOU billing. The salary and expenses were not included in WNH's approved 2011 COS filing, thus, these costs are not included in WNH's current rates."

VECC Question # 3

Reference: Application, Page 9, Smart Meter Project Overview of Services
Preamble: The evidence indicates that in 2008 Waterloo North Hydro contracted for the meter disposal of old meter assets.

a) Please confirm how this contract is reflected in this application.

WNH has not included any cost of disposing of old meter assets in this application.

VECC Question # 4

Reference: Application, Page 11, Status of Smart Meter and Time of Use Implementation

Preamble: The evidence indicates that “During contract negotiations, WNH decided on the purchasing option to own its AMI system and have it operated by the AMI vendor.”

a) Please discuss the options considered and provide the analysis of options including any cost benefit analyses that Waterloo North Hydro undertook to arrive at this decision.

Three options were considered and are described below.

- 1) WNH own and operate the SMI - WNH felt this was a higher cost and higher risk option than the one eventually chosen. WNH did not have the technical resources to execute this option, nor did it feel that it could acquire those resources in a time frame to meet the government's mandate on the execution of Smart Metering. It was also felt that the technology had not matured and that it needed considerable work (which has proven out to be true) that only the vendor could execute.
- 2) Sensus own and operate the network - WNH also felt this was a higher cost and higher risk option than the one eventually chosen. It was felt that Sensus was charging a premium for owning and operating the system. There was also a risk that should Sensus limit or cease operations, this fully purchased service option would make WNH extremely vulnerable to SMI degradation or complete system shutdown as it would not have any control over the technology
- 3) WNH own the SMI and contract with Sensus to operate - It was felt that this option had the best combination of least cost and risk. Partnering with Sensus to operate the SMI in the near term and owning the SMI provides WNH with better options should Sensus cease operations. Ownership provides WNH greater control and experience with the SMI technology.

VECC Question # 5

Reference: Application, Page 11, Status of Smart Meter and Time of Use Implementation

a) Please summarize the types of meters installed for each rate class.

Please see the Table below.

Table IR # 5a – Types of Meters Installed by Rate Class

Class	Type of Meter	Quantity
Residential		
	Single Phase Residential	
	Single Phase - Self Cont - Sockets	41,199
	Single Phase - Self Cont - "A" Base	441
	Single Phase - Tx Type	209
	Network Meters	4,528
	Three Phase Services Residential	
	120 - 480V Socket base	141
	120 - 480V Transformer Rated (A or P Bases)	3
	120 - 480V "P" Bases	1
	Total	46,522
GS<50 kW		
	Single Phase General Service < 50KW	
	Single Phase - Self Cont - Sockets	1,485
	Single Phase - Self Cont - "A" Base	3
	Single Phase - Tx Type - Sockets	764
	Single Phase - Tx Type - "A" Base - To be replaced w/ standard smart meter - 2-wire	104
	Network Meters	103
	Three Phase General Service < 50KW	
	120 - 480V Socket base	2,274
	120 - 480V "P" Bases (100A-200A)	78
	120 - 480V Transformer Rated (A or P Bases)	420
	600 Delta "P" Bases	33
	600 Delta Sockets	154
	Total	5,418
Total		51,940

b) Please complete the following table to show average costs based on individual meter types.

Class	Type of Meter	Quantity	Meter Cost	Average Meter Cost	Installation Cost	Average Installation Cost	Other Costs	Total Average Cost
Residential								
GS<50 kW								

WNH stated on Page 20 of its Application “WNH tracked the costs of installing Single Phase and Poly Phase Meters separately, as well as tracking the number (*not specific cost*) installed of each phase type by Rate Class.” (*emphasis added*). WNH is thus, unable to provide any Cost per Type of Meter.

WNH notes, that as demonstrated in the Table above, with the large number of types of meters installed, it would not be practical, nor efficient, to track the costs by each type of meter, by rate class.

WNH submits that the allocation, to the Residential and GS < 50 kW rates classes on the basis of Single and Poly Phase Meters, as provided in this Application, was reasonable. The details are provided in Tables 12 and 13 of the Application.

WNH used the following Allocation Methodology:

- WNH tracked the costs of installing Single Phase and Poly Phase Meters separately, as well as tracking the number (not specific cost) installed of each phase type by Rate Class.
- All 1.1 Costs for Poly Phase Meters are allocated to GS < 50 kW Rate Class except for 145 Residential Poly Phase Meters which were installed.
- All 1.1 Costs for Single Phase Meters were allocated on the proportional basis of the number of Single Phase Meters installed to each of the Residential and GS < 50 kW rate classes. The cost per Single Phase Meter did not materially differ between the rate classes, thus, the average cost per meter is calculated as the same.

VECC Question # 6

Reference 1: Smart Meter Model (V2_17) 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. (This should include any revisions to the model resulting from interrogatory responses)**

WNH is unable to complete a separate smart meter revenue requirement model by rate class as it does not have all of the costs allocated by rate class. WNH submits that the allocation methods approved by the Board in the PowerStream Decisions (EB-2010-0209 and EB-2011-0128), and applied in this application, are reasonable and best reflect the information available.

- a) Please re-calculate the SMDR & SMIRR rate riders based on full cost causality by rate class.**

Please refer to IR # 6 a) above.