

PROCEDURAL ORDER NO.2

GUELPH HYDRO ELECTRIC SYSTEMS INC. (“Guelph Hydro”)

TCQ _ RESPONSES TO THE VECC’S INTERROGATORIES ON

2012 ELECTRICITY DISTRIBUTION COST OF SERVICE RATES

FILE NUMBER EB-2011-0123

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Issue 2.1 - Is the rate base appropriate?

1 Reference: VECC IR #3

a) What measure or metrics does Guelph intend to use to assess the future success (or failure) of the current asset management plan?

Guelph Hydro's Response:

Guelph Hydro plans on updating the asset management plan and asset condition assessment on a yearly basis and by doing so will be able to assess the success or failure of both through the comparison in the health indexes of each asset class on a year to year basis.

b) In response to VECC IR #3 (d) Guelph notes that the asset management plan accounts for only a portion of its actual capital budget. In the IR response Guelph states that its capital budget incorporates the asset condition findings as well as the replacement of other distribution equipment that was not included in the asset condition assessment, but will be included in plans in the future. Why were these other projects not included in the current plan?

Guelph Hydro's Response:

There were no projects left out of the current asset condition assessment. At the time of developing the condition assessment some assets were not included due to a lack of operational records and information regarding the condition of the asset.

c) At page 8 of the Asset Management Plan (Exhibit 2/Tab4/Schedule 5) it states that "*This AMP [Asset Management Plan] provides the bases for current and future work to be undertaken...and serves as a means of disseminating information to customers, shareholders and regulators regarding the rationale for the investments to be made.*" At Table 1 of the Asset Management Plan (Exhibit 2/Tab 4/page 8) the Total Investments for 2012 are listed at \$16.3 million. Please reconcile this number with the proposed capital budget in the application and list those 2012 projects that are included as part of the AMP separately from those that will presumably be included as part of a subsequent AMP.

Guelph Hydro's Response:

The proposed 2012 capital budget in the asset management plan (Exhibit 2/Tab 4/Page 8) is \$11,336 million. Included in the \$11,336 million is \$10,150 million in distribution capital expenditures as stated in the 2012 distribution capital budget summary in (Exhibit 2/Tab 4/Schedule 4/Appendix B Page 2) and \$1.186 million in other service capital.

The following is a list of assets that was left out of the current asset condition assessment:

- Concrete vaults
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- K-bar switching cubicles
- UG Cable
- OH conductor
- Single phase switches
- Non-ganged operated three phase switches
- MS breakers

Some of these assets will be included in subsequent revisions of the asset management plan and condition assessment.

Issue 3.1 – Is the load forecast methodology including weather normalization appropriate?

2 Reference: Reference: Board Staff #15 a) and d) VECC #5

a) Please confirm that while the Board Staff IR asked about the use of Canadian vs. Ontario Manufacturing GDP the response discusses and the graph in the response compares Canadian vs. Ontario (total) GDP. If yes, is there similar information available regarding the correlation between Canadian vs. Ontario Manufacturing GDP?

Guelph Hydro's Response:

Guelph Hydro confirms that its response to the Board Staff IR#15 a) discusses and the graph compares Canadian vs. Ontario (total) GDP, as the Manufacturing GDP is a significant part of the total GDP. Guelph Hydro could not find similar information regarding the correlation between Canadian vs. Ontario Manufacturing GDP. In fact, Guelph hydro could not find Ontario Manufacturing GDP statistics.

b) With respect to the response to part (d), please confirm whether the 1,607 GWh and 1,693 GWh values are before/after the CDM adjustment.

Guelph Hydro's Response:

Guelph Hydro confirms that both 2012 projected purchases are after the CDM adjustment.

c) Please also confirm whether the 1,737 GWh value reported in response to VECC #5 b) is before or after the CDM adjustment.

Guelph Hydro's Response:

Guelph Hydro confirms that the 1,737 GWh value reported in response to VECC #5 b) is after the CDM adjustment.

d) Please explain why the regression model adopted by Guelph is preferable to the second regression model presented in response to VECC #5 a).

Guelph Hydro's Response:

Statisticians believe the adjusted R Square is the best measure of association between the independent variable and the dependent variable. Adjusted R Square is interpreted as the proportion of variability in the dependent variable that is explained by the independent variable.

It is also a fact that by adding more variables (that make sense and explain the dependent variable variability) to a regression model, the value of R-squared increases.

All above made Guelph Hydro to select a model with a higher number of variable. If compared, the regression model adopted by Guelph Hydro (8 independent variables) shows a better Adjusted R Square (i.e. 0.85) than the second regression model (7 independent variables) presented in response to VECC #5 a) (i.e. 0.84).

3 Reference: Board Staff #17

a) Please confirm whether the 14.4 GWh value reported is an “annualized value” or the 2011 value – recognizing that the 2011 programs savings are not all achieved as of the start of the year.

Guelph Hydro’s Response:

Guelph Hydro confirms that the 14.4 GWh of estimated 2011 energy savings is an “annualized value”.

4 Reference: Energy Probe #9

a) Please provide forecast of 2011 and 2012 energy purchases (prior to CDM) based on the equation estimated in response to this interrogatory.

Guelph Hydro's Response:

Guelph Hydro provided below the forecast of 2011 and 2012 energy purchases prior to CDM adjustments. Please note that Guelph Hydro has corrected the number days used for February 2012 to reflect the leap year (i.e. 29 days).

Predicted Purchases	
Year	GWh
2011	1,684
2012	1,707

**5 Reference: Energy Probe #13
Exhibit 3, Tab 2, Schedule 1, Appendix B**

a) Please confirm that in developing the regression model for Purchases the number of days used for February in Leap Years was 29.

Guelph Hydro's Response:

Guelph Hydro confirms that in its original Load Forecast model submitted on June 30, 2011 the number of days used for February in Leap Years was 29, excepting 2012 Year were it inadvertently used 28 days. Guelph Hydro has corrected this error in its response to VECC's interrogatory #4.

b) Please confirm that in forecasting February 2012 Purchases the number of days used February was 28. If yes, please revise the forecast using 29 days for February 2012.

Guelph Hydro's Response:

Please see the response to interrogatory #5a and to Energy Probe interrogatory #13 (TSQs). The original Load Forecast (submitted on June 30, 2011) results after correction are:

Predicted Purchases	
Year	GWh
2011	1,681
2012	1,695

6 Reference: VECC #8 a)

a) The adjustment formula does not appear to be correct, as in those cases where the HDD or CDD is higher than “normal” the adjustment is positive as opposed to negative. Please check and correct the response as required.

Guelph Hydro’s Response:

Guelph Hydro has changed the formulas for HDD/CDD differences between normal and actual.

The results are presented below.

Please note that Guelph Hydro responded to VECC #8 a) as the interrogatory required (please see the fifth bullet of IR #8 a:” The weather normal adjustment for each year based on the product of a) the HDD and CDD coefficients and b) the differences between the actual and “weather normal” values for HDD and CDD respectively.”)

		2009	2010	Formulas
Actual Purchases [GWh]		1,504,188,795	1,640,997,395	A
Actual annual HDD		1,928.9	1,703.5	B
Actual annual CDD		197.9	439.6	C
Weather Normal HDD		1,849.54	1,849.54	D
Weather Normal CDD		397.95	397.95	E
HDD coefficients				
Heating Degree Days		29,113.89	29,113.89	F
Cooling Degree Days		80,727.19	80,727.19	G
HDD normal to actual diferrence		-79.36	146.04	H=D - B
CDD normal to actual diferrence		200.05	-41.65	I=E - C
Weather normal adjustment for HDD		-2,310,471.69	4,251,799.89	J=H x F
Weather normal adjustment for CDD		16,149,304.31	-3,362,457.40	K=I x G
Estimated Weather Normal Purchases		1,518,027,628	1,641,886,738	L= A + J + K
Differences normal to actual %		0.91%	0.05%	%=(L-A)/L

7 Reference: VECC #9 b)

a) The response states that the 2011 and 2012 forecast for Manufacturing GDP “were calculated as 10 year historical monthly average”. However, the 2011 and 2012 forecast monthly values for this parameter (per Exhibit 3, Tab 2, Schedule 1, Appendix B, page 5) appear to be higher than the average of the previous 10 years of data for the corresponding month. Please reconcile and further clarify the basis for the forecast values.

Guelph Hydro’s Response:

Guelph Hydro has checked the 2011 10 year historical monthly average and it is correct. The 2012 10-year historical monthly average takes in consideration 2011 monthly coefficient (i.e. 2002 to 2011 monthly average).

Issue 3.5 – Is the test year forecast of other revenues appropriate?4

8 Reference: Board Staff #18

a) What was the actual total revenue from scrap metal sales in 2010?

Guelph Hydro's Response:

The actual total revenue from scrap metal sales in 2010 was \$85,198.50.

9 Reference: Energy Probe #18 c)

a) Please confirm that Account 4380 records expense and not balance sheet related costs. If this is the case, please explain how the account can capture the fully allocated amount of rate base used in the provision of street light maintenance.

Guelph Hydro's Response:

Response to be provided before the Settlement Conference.

Issue 6.1 – Is the proposed inclusion of the smart meter costs appropriate?

10 Reference: VECC #26

a) In the response regarding the business case for the inclusion of the Zigbee communication chip in smart meters, Guelph indicates that it may be used in for future CDM or other plans. Are there any current plans for the use of the smart meter communications capabilities? If not, when and how does Guelph intend to make use of this incremental investment?

Guelph Hydro's Response:

Guelph Hydro's current plans are to use the Zigbee communications chip to support the requirement of providing a customer's electricity consumption information directly from the Smart Meter to a customer's In-Home Display (IHD). We have confirmed that, moving forward, the OPA will be funding In-Home Displays as part of one of their province-wide CDM programs, and the embedded Zigbee chip will enable the requirement to provide almost real-time consumption information to customers which have enrolled in this CDM program. Please refer to previous Board Staff Interrogatory Response #85 for more details. Also refer to previous Board Staff Interrogatory Response #86 for more details on a proposed IHD Messaging project as part of Guelph Hydro's Green Energy Act Plan.

Issue 7.1 – Is the Applicant’s cost allocation appropriate?

11 Reference: Board Staff #48

a) In conjunction with its interrogatory responses Guelph has filed a revised Cost Allocation Model. Please provide a schedule that itemizes any changes made to the cost allocation model/inputs as originally filed apart from those that are directly a result of the Board’s release of its new Cost Allocation model.

Guelph Hydro’s Response:

Please see the response to the Board Staff interrogatory #21(e), 22 (a), and 22 (d) (TSQs).

12 Reference: Board Staff #51

a) Please confirm that Guelph is proposing to recover the LV costs attributable to Residential, GS<50 and USL customers using a fixed monthly rate as opposed to a volumetric rate as is typically used by distributors.

Guelph Hydro's Response:

Guelph Hydro is proposing to recover the LV costs attributable to Residential, GS<50 kW and USL customers using fixed monthly rate adders.

b) Would an alternative be to post the forecast amounts to the appropriate variance account and recover as part of the subsequent clearance of the account?

Guelph Hydro's Response:

Guelph Hydro confirms that an alternative would be to post the forecast amounts to the appropriate variance amount, but neither this alternative is typically used by distributors.

13 Reference: Board Staff #54

a) In Guelph's view, would "Number of RPP Customers" by rate class be a more appropriate allocator of SSS Admin Charge revenues?

Guelph Hydro's Response:

Guelph Hydro provides SSS service to all customers without a retailer contract: "RPP Customers", and commercial customers with a demand above 50 kW. Therefore, Guelph Hydro's view is that an alternative allocator for SSS Admin Charge could be the number of customers without a retailer contract.

14 Reference: Energy Probe #49 and VECC #28

Board Staff #54

a) The response to the Board Staff IR suggests that a detailed survey would be required to develop Guelph-specific connection factor for Street Lights. However the responses to the Energy Probe and VECC IRs appear to provide Guelph specific data. Please reconcile.

Guelph Hydro's Response:

Guelph Hydro provided an estimate in order to calculate a connection factor for street lights and is specific to Guelph Hydro. A detailed survey would be required in order to provide a more accurate connection factor.

Issue 7.2 – Are the proposed revenue to cost ratios for each class appropriate?

15 Reference: Board Staff #56

Energy Probe #44 VECC #30

a) What would be the revenue shortfall if the ratios for GS<50, GS 50-999 and Large Use were all adjusted to the upper end of the target range for each class and GS 1000-5000 was adjusted to the lower end of the target range for that class?

Guelph Hydro's Response:

Guelph Hydro has used the revised version of the Cost Allocation model (see Board Staff TCQ #21e, #22a, #22d).

The Revenue Shortfall would be \$392,746.

Rate Classification	Revenue to Cost Ratios Per the New C.A. (v2) updated as per BS TCQ#21, and #22	Rev Requirement by Rate Class @ 100% Rev Cost Ratio	Revenue to Cost Ratios as per EP_IR_44 b and VECC_TQC_15 b	Board Target Low	Board Target High	Proposed Rev Requirement by Rate Class @ proposed revenue to cost ratios
Residential	96.35%	\$19,286,771	96.35%	85%	115%	\$18,583,102
GS < 50 kW	129.01%	\$2,905,591	120.00%	80%	120%	\$3,486,709
GS 50 to 999 kW	152.87%	\$3,540,976	120.00%	80%	120%	\$4,249,171
GS > 1000 kW	60.22%	\$5,218,923	80.00%	80%	120%	\$4,175,138
Large Use	118.51%	\$1,194,423	115.00%	85%	115%	\$1,373,587
Sentinel Lights	113.57%	\$4,477	113.57%	80%	120%	\$5,085
Street Lighting	60.06%	\$449,532	70.00%	70%	120%	\$314,672
USL	122.12%	\$102,412	120.00%	80%	120%	\$122,895
TOTAL		\$32,703,106				\$32,310,359
		\$0		Revenue Shortfall		\$392,746

b) If the same revenue to cost ratio were to be used for Residential and Street Lighting, what would the ratio need to be to recover this shortfall?

Guelph Hydro's Response:

Guelph hydro believes that the response to interrogatory # 15a already captured the scenario; the revenue shortfall is \$392,746.

Issue 8.2 – Are the proposed retail transmission service rates appropriate?

16 Reference: VECC #33

a) Please explain further why the trend adjustment is necessary when the OEB's RTSR Work Form trues-up the Retail Transmission Service rates to forecast wholesale billing costs to Guelph.

Guelph Hydro's Response:

Guelph Hydro proposed two adjustments to the existing RTSRs: one based on a cost to revenue trend analysis, and other based on the OEB's RTSR Adjustment Work Form.

The OEB's RTSR Adjustment Work Form reflects the Hydro One transmission rates changes, and it addresses the cost variation.

The proposed adjustment to eliminate the trend in the RTSR deferral accounts addresses the collected revenue versus the cost variation.

Based on the above observations already stated in the response to VECC interrogatory #33, it is Guelph Hydro's point of view that only implementing both adjustments the variance between the wholesale cost (UTRs) and the retail revenue (RTSRs) will eliminate ongoing trends.
