Board Staff Supplementary Interrogatories
Greater Sudbury Hydro Inc.
EB-2012-0126

The following are Board staff's supplemental interrogatories in the Greater Sudbury Hydro Inc. ("GSHI"), 2013 distribution rates application EB-2012-0126.

Exhibit 1

1 Staff 47s RRWF

Reference: 1-Staff-2

A review of the Revenue Requirement Work Form filed in the responses to interrogatories shows a revenue sufficiency of $706,877 (cells H52 and L52 on sheet 8 of the RRWF.)

A. Please explain what changes GSHI has made that resulted in the sufficiency shown in the updated RRWF.

B. If this is in error, please provide a corrected version.

C. Please provide updated versions of the RRWF reflecting all updates made as a response of supplemental interrogatories. In doing these updates, also reflect the updated Return on Equity and deemed Short-term and Long-term Debt Rates as communicated by the Board on February 14, 2013 for 2013 Cost of Service applications with an effective date of May 1, 2013. Please file the RRWF in working Microsoft Excel format. Use columns I and M of the RRWF to reflect the further changes made; do not use column E which should continue to correspond to the Application as initially filed.

Exhibit 2

2 Staff 48s Trends

Reference: 2 Staff 4

GSHI has provided a trend table in response to Board staff's request. The trends are based on actuals for 2007 – 2011.

A. Please state the 2009 Board approved capital expenditures that are underpinning GSHI's current rates.

B. Please confirm that the estimated 2009 costs for the CODAC/SAP CIS system was included in the approved CAPEX, and state the amount.

2 Staff 49s Community Energy Storage
Reference: 2 Staff 7

In clarifying the purpose of the Community Energy Storage ("CES") as a component of GSHI's GEP, GSHI states on page 52 that under Sections 3.3.3 and 3.3.2 (h) of the Distribution System Code ("DSC") the LDC is financially responsible for "modifications or additions to allow for and accommodate 2-way or reverse flows.

A. Is it GSHI's interpretation of these sections that none of the costs associated with the CES is eligible for the provincial benefit? Please explain your answer.

GSHI has stated on page 51 that in order to meet requirements of CSA Standard C22.2, inverters used on renewable generators are to supply voltages between 0.88 and 1.1 per unit ("pu"). Specifically GSHI states: "Clearly under the right conditions secondary voltages of between 1.04 pu and 1.1 pu, i.e. voltages that exceed CSA Can3-235 will exist on secondary lines supplying load customers." Board staff would like some clarification.

B. Is it GSHI's understanding that this precludes the inverter being set to provide a supply voltage of 1.04 pu?
C. If the answer to B is "yes", is it your understanding that the CES units are capable of bringing about a voltage reduction from 1.1 to 1.04 on a continuous basis?

Board staff is interested in further information regarding the application of CES on GSHI's distribution system.

D. Is GSHI aware of any installations utilising solar generators supplemented by CES units, given that there are numerous solar generator projects throughout Canada and the United States?
E. Does GSHI have any experiential knowledge with any inverter output devices and their voltage control? If so, please describe the relevance to the expected situation.
F. Does GSHI have a staged plan to demonstrate that there is a need to have a CES unit in place before placing a solar generator in service? If so please describe the plan. If not, please state why it is necessary to install CES upfront.
G. As an alternative, would GSHI be prepared to have an independent consultant recommend as to whether the CES devices are required before installing such devices?
H. Given that CES is new technology, and the degree of investment that GSHI is planning over the next few years, please explain why the plan is a prudent plan relative to other more conventional solutions.

2 Staff 50s Distribution Management System
Reference: 2 Staff 8

Board staff seeks additional information on GSHI's Distribution Management System ("DMS").

A. Please state GSHI's knowledge of other installations utilising the described DMS given that there are numerous solar generator projects around North America?
B. Please state any experience that GSHI might have with DMS, and how that experience is related to GSHI's GEP.
C. Does GSHI have a staged plan to demonstrate that there is a need to have this specialized DMS in place before placing solar generation/inverter system in service? That is, does GSHI plan to first use conventional SCADA? If so please describe such the plan.
D. As an alternative, would GSHI be prepared to have an independent consultant recommend as to whether DMS devices are required or not before installing such devices?

2 Staff 51s SCADA
Reference: 2 Staff 9

In GSHI's response stating specific needs/projects for monitoring, controlling and transfer trip facilities, it described functions fulfilled by classic SCADA systems, including digital status and control points and analog/digital data monitoring, for purpose of status, control and metering.

A. Is the transfer trip essentially a monitoring of a status point?
B. Is GSHI describing the addition of points to an existing SCADA system?

Exhibit 3

3-Staff-52s CDM Adjustment
Reference: 3-Staff-21 (2)

Further to the analysis provided in response to 3-Staff-21 (2), Board staff has an alternative proposal to deal with the CDM adjustment that would be factored into the load forecast and that would be related to the amount used as the basis for the 2013 (and 2014) LRAMVA balance.

This approach takes into account the 2011 results and their persistence, as measured and reported by the OPA for GSHI, and then to assume an equal increment for each of 2012, 2013, and 2014 so as to achieve GSHI's CDM target of 47,380,000 kWh. This was first explored in 3-Staff-21 (2). Based on the final 2011 OPA results filed on the record, and the information filed in the response to 3-Staff-21 (2), Board staff has prepared the following table, which is also provided in working Microsoft Excel format:

Load Forecast CDM Adjustment Work Form (2013)

Greater Sudbury Hydro Inc. ***EB-2012-0126***

4 Year (2011-2014) kWh Target:					
47,380,000					
	2011	2012	2013	2014	Total
%					
2011 CDM Programs	4.55%	4.55%	4.55%	4.29%	17.95%
2012 CDM Programs		13.68%	13.68%	13.68%	41.03%
2013 CDM Programs			13.68%	13.68%	27.35%
2014 CDM Programs				13.68%	13.68%
Total in Year	**4.55%**	**18.23%**	**31.90%**	**45.31%**	**100.00%**
kWh					
2011 CDM Programs	2,157,479	2,157,479	2,157,479	2,031,030	8,503,467
2012 CDM Programs		6,479,422	6,479,422	6,479,422	19,438,267
2013 CDM Programs			6,479,422	6,479,422	12,958,844
2014 CDM Programs				6,479,422	6,479,422
Total in Year	**2,157,479**	**8,636,901**	**15,116,323**	**21,469,297**	**47,380,000**
				Check	47,380,000

	Net-to-Gross Conversion "Gross"	"Net"	Difference	"Net-to-Gross" Conversion Factor ('g')
2006 to 2011 OPA CDM programs: Persistence to 2013	1	1	0	0.00%

	2011	2012	2013	2014	Total for 2013
Amount used for CDM threshold for LRAMVA	2,157,479	6,479,422	6,479,422		15,116,323
Manual Adjustment for 2013 Load Forecast	2,157,479	6,479,422	3,239,711		11,876,612
Manual adjustment uses "gross" versus "net" (i.e. numbers multiplied by (1 + g)			*Only 50% of 2013 CDM impact is used based on a half year rule*		

The methodology for this is as follows:

For the top table

- The 2011-2014 CDM target is input into cell B4;
- Measured results for 2011 CDM programs for each of the years 2011 and persistence into 2012, 2013 and 2014 are input into cells C13 to F13;
- Based on these inputs, the residual kWh to achieve the 4 year CDM target is allocated so that there is an equal incremental increase in each of the years 2012, 2013 and 2014.

The second table is to calculate the conversion from “net” to “gross” results. While the LRAMVA is based on the “net” OPA-reported results, the load forecast is impacted also by CDM savings of “free riders” and “free drivers”. While Board staff has input values of “1” in each of cells D24 and E24, in the absence of other information, these should be populated with the measured “gross” and “net” CDM savings for the persistence of all CDM programs from 2006 to 2011 on 2013, as reported in the final OPA reports.

For the last table, two numbers are calculated:

- The “Amount used for CDM threshold for LRAMVA” is the sum of the persistence of 2011 and 2012 CDM programs and the annualized impact of 2013 CDM programs on 2013; and
- “Manual Adjustment for 2013 Load Forecast” represents the amount to be reflected in the 2013 load forecast. This amount uses the “gross” impact, which is calculated by multiplying each year’s CDM program impact or persistence by (1 + g) from the second table. In addition, the impact of the 2013 CDM programs on 2013 “actual” consumption is divided by 2 to reflect a “half year” rule. Since the 2013 CDM programs are not in effect at midnight on January 1, 2013, the “annualized” results reported in the OPA report will overstate the “actual” impact. In the absence of information on the timing and uptake of CDM programs in their initial year, a “half-year” rule may proxy the impact.

A. Please input the “gross” and “net” cumulative kWh CDM savings from all CDM programs from 2006 to 2011 on 2013 as measured in the final OPA reports into, respectively, cells D24 and E24.

B. Please derive the class CDM kWh and kW savings that would correspond with the “net” CDM savings above.

C. Please provide GSHI’s comments on the methodology above to develop the CDM savings that will underlie the 2013 CDM amount for the LRAMVA and the corresponding CDM adjustment for the 2013 test year load forecast. What refinements to this approach should be considered?

Exhibit 4

4 Staff 53s Inflation Estimate

Reference: 4-AMPCO-4

In its response to 4-AMPCO-4, GSHI derives the change in inflation as measured by CPI by subtracting the earlier value from the latest value, i.e. 120.1 – 113.7 = 6.4%.

Indices as reported by Statistics Canada and other national statistics bureaus and economic forecasters are a series which represent the underlying actual series but converted to be expressed relative to the value in a specific point in time. As currently reported by Statistics Canada; indices use a base year of 2007=100.

With this definition, please confirm that the change in inflation is expressed as the ratio, i.e. (120.1-113.7)/113.7 = 5.63%.

4 Staff 54s Reference: 2 Staff 28
GSHI stated in its Application that it is being compliant with the Kinectrics report and will use Typical Useful Lives ("TUL") of 50 years for Subtransmission and Primary Overhead Conductors and Devices, while it would prefer to use 40 years. In response to the above stated interrogatory, GSHI stated that it would be appropriate to change this to 40 years. Board staff also notes that the average useful life for poles is 40 years. GSHI has stated that when poles are replaced, so are cables and devices.

GSHI has also stated the accounting treatment for retiring assets that are less than fully depreciated. Board staff points out that a retired asset is no longer used and useful.

Board staff is distinguishing between the physical life of an asset, and the economic life. As an example, cables may physically last 50 years; economically speaking they are written-off after 40 years.

A. Please provide the years for depreciation for a new asset based on the economic life, as opposed to TULs, for any asset that is retired prior to the end of their useful life.
B. Please make any necessary updates to any Average Remaining Life used on the opening NBV based on A above for the same assets.
C. Please update columns (i) "Average Remaining Like of opening NBV" and (f) Years (New Additions Only)" in Appendix 2-CG

Exhibit 5

5 Staff 55s Reference: 5 Staff 30 Attachments 16 & 17
GSHI provided Appendix 2-OA and 2 OB as attachments to correct the SWAP instrument rates. Board staff noticed that for 2013 on Attachment 17, the weighted cost for long term debt is 4.42% while it is 4.41% on Attachment 16.

On February 14, 2013 the Board published the following costs of capital parameters for rates with effective dates of May 1, 2013:

Deemed Rates for May 1, 2013		
	Debt	
1	Long-term Debt	4.12%
2	Short-term Debt	2.07%
	Equity	
3	Common Equity	8.98%

Please update any changes in debt interest rates related to third party agreements and for the deemed rates set by the Board for non-arms-length loans. In addition, please update for the new deemed equity rate.

Exhibit 9

9 Staff 56s Reference: 9 Staff 38

GSHI provided an update to the EDDVAR continuity schedule in response to 9 Staff 38. Board staff notes the following:

- In the updated EDDVAR continuity schedule, it appears that the Column "Transactions Debit/ (Credit) during 2009 excluding interest and adjustment" was reduced by the amount that was approved for disposition in EB-2008-0230 for each deferral/variance account, as compared to the same column in the EDDVAR continuity schedule originally filed in the Application. A similar adjustment was also made in the 2009 carrying charge section of the EDDVAR continuity schedule; and
- It appears that in the updated EDDVAR continuity schedule, the in Column "Transactions Debit/ (Credit) during 2009 excluding interest and adjustment" was recorded in the Column "Board-Approved Disposition during 2009". A similar adjustment was also made in the 2009 carrying charge section of the EDDVAR continuity schedule.

It is not clear to Board staff from reviewing the updated EDDVAR continuity schedule if the transfer for the 2009 Board approved amount from each deferral/variance account to Account 1595 was actually done in 2009.

A. Please provide a copy of the journal entry (both sides – debits and credits) that shows the transfer to Account 1595 from each deferral/variance account for the principals and carrying charges approved for disposition in EB-2008-0230. Please ensure that the copies show the date the entry was made to the general ledger.
B. If the journal entries do not support the transfer for the 2009 Board approved amount from each deferral/variance account to Account 1595 in 2009, please propose solutions to address this issue.

9 Staff 57s Reference: 9 Staff 42

GSHI is seeking disposition of a debit balance of $136,929 in Account 1508, sub-account IFRS Transition Costs, as at December 31, 2012, including carrying charges forecast to April 30, 2013. GSHI incurred a balance of $82,866 in Account 1508, sub-account IFRS Transition Costs, as at December 31, 2011. GSHI filed a revised Appendix 2-U with its response to 9 Staff 42. Appendix 2-U provided a breakdown of the one-time incremental IFRS costs. GSHI's current rate application is based on CGAAP.

A. Please state if the principal balance in Account 1508 Sub-Account Deferred IFRS Transition costs as at December 31, 2012 included in the $136,929 balance noted above is an audited balance.

B. Please state whether GSHI had any one-time incremental administrative IFRS costs included in its either its Board-approved 2009 revenue requirement or in its proposed 2013 revenue requirement.

C. If there were such costs included in the 2009 Board approved revenue requirement, please update GSHI's evidence to comply with the Accounting Procedures Handbook Frequently Asked Questions ("APH FAQ") #2 regarding account 1508, Sub-account IFRS Transition Costs Variance. This sub-account should be used if GSHI has a Board-approved amount designated for one-time administrative incremental IFRS transition costs already included for recovery in its distribution rates.

D. Please confirm that any such costs:
   I. are one-time incremental;
   II. exclude labour costs which were included in GSHI's approved 2009 revenue requirement; and
   III. are not already claimed by GSHI in other parts of GSHI's current application.

E. Did GSHI collaborate with other distributors regarding the IFRS project for cost sharing purposes?
   I. If so, please list those distributors and explain the nature of the work that was jointly undertaken.
   II. Please explain the basis of the allocations of the costs between the distributors.
   III. Please confirm all the costs shown in Appendix 2-U are only incurred by GSHI and were not shared with any other distributors.

F. GSHI has deferred adopting IFRS until 2014, however the Accounting Standards Board (AcSB) has recently allowed for an additional one-year optional deferral to 2015.
   I. Please confirm that GSHI is still requesting the disposition of the transitional costs incurred to 2012.

In response to 9 Staff 42, GSHI listed five outstanding major elements for transitioning to IFRS that are yet to be completed. With regards to 1508, Other Regulatory Assets, "Sub-account Deferred IFRS Transition Costs", APH FAQ #2 states:

> *``In the distributor's next cost of service rate application immediately after the IFRS transition period, the balance in this sub-account should be included for review and disposition.*

II. Please state GSHI's justification for the disposition of the IFRS transition costs in this rate application and not the rate application immediately after the IFRS transition period.

III. If disposition is still being requested by GSHI, please indicate if GSHI plans to continue accumulating costs in Account 1508 from 2013 onwards.

IV. If disposition is not requested, please update the relevant evidence in the application.