January 16, 2013

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Dear Ms. Walli:

RE: 2013 ELECTRICITY DISTRIBUTION RATE APPLICATION FOR ALGOMA POWER INC. ("API") – EB-2012-0104
INTERROGATORY RESPONSES

Please find accompanying this letter two (2) copies of API's responses to the interrogatories submitted to the Board by the Vulnerable Energy Consumers Coalition. In addition, electronic copies of the EXCEL and PDF format files requested in the interrogatories accompany the interrogatories.

PDF versions of these responses will, coincidently with this written submission, be filed via the Board's Regulatory Electronic Submission System.

If you have any questions in connection with the above matter, please do not hesitate to contact the undersigned at (905) 994-3634.

Yours truly,

Original signed by:

Douglas R. Bradbury
Director, Regulatory Affairs

Enclosures

VECC Question #1

Reference: Smart Meter Funding and Cost Recovery, Page 3

Preamble: The application states that the collaborative effort between CNPI (API's affiliate company) and Westario Power Inc. and Grimsby Power Inc. allowed API to benefit from sharing the costs of specific aspects of the project such as IT development costs.

a) Please identify and quantify any benefits from sharing costs through this collaboration.

b) Please indicate how any savings are reflected in the current application.

Response:

a) Please refer to the interrogatory response provided to the Board Q11, along with budget-to-actual variance explanations provided for '1.6.3 Costs for TOU, CIS upgrades, web pres, MDM/R' in VECC Q6a.

b) Savings are reflected in the current application to the extent that only actual costs that were incurred for API, were included. For example, MDM/R actual costs of $131,390 are reported in Schedule 1, rather than the $218,000 that may have been incurred had API sought out MDM/R integration utilizing other sources (refer to budget-to-actual variance explanations provided for '1.6.3 Costs for TOU, CIS upgrades, web pres, MDM/R' in VECC Q6a).

VECC Question #2

Reference: Smart Meter Funding and Cost Recovery, Page 4

Preamble: The evidence indicates "Early in the planning process, the D9 utilities recognized that there would be great value in pursuing a collective approach to implementing AMI systems."

a) Please quantify any savings resulting from the D9 LDCs collaboration.

b) Please indicate how any savings are reflected in the current application.

Response:

a) A preliminary analysis performed by Util-Assist in 2007 indicated that API would save approximately 6.4% on total smart meter capital costs and approximately 27% on ongoing smart meter O&M costs as a result of implementing AMI in a D9 groups as opposed to a stand-alone implementation. These savings resulted largely from the use of a shared RNI among the D9 LDC's, as well as the ability to obtain volume discounts on certain items.

As a result of this analysis, D9 and Util-Assist requested that the D9 group be allowed to submit information as a "virtual utility" for the purpose of evaluation in the London Hydro RFP model. During a meeting with the Ministry of Energy and London Hydro, it was determined that submission as a "virtual utility" would be allowed. However, due to the rules of the RFP process and the relevant regulations allowing other LDC's to "piggyback" on this process, London Hydro would not be able to provide pricing outcomes for each LDC/vendor combination as well as pricing for the "virtual utility" outcome.

As an alternative, to ensure that the "virtual utility" approach would not unduly disadvantage any individual LDC, London Hydro allowed each LDC to specify a "Blind Analysis" percentage amount. This allowed the D9 group to request that in the event of any individual LDC's cost being more than 5% higher in the group

model as compared to that LDC's individual costs, then that LDC would be entered into the model as an individual instead of a member of the group. The rationale for choosing the 5% threshold was to account for the London model being an approximation of true costs and for the fact that there may be additional cost savings resulting from the group procurement beyond those identified in the model.

The results of the London model using the above criteria resulted in Sensus being identified as the top-ranked vendor for the D9 group as a collective. Since no individual LDC costs were returned from this evaluation, API cannot quantify the exact cost saving as a result of the group AMI implementation.

b) Savings are reflected in the current application to the extent that the recovery being sought is presumably less than it otherwise would have been had API elected to deploy smart meters as a stand-alone LDC.

VECC Question #3

Reference: Smart Meter Funding and Cost Recovery, Page 6

Preamble: The evidence indicates the D9 utilities decided to collectively lease the RNI from Sensus who would own the RNI and be responsible for its operation and maintenance and the D9 utilities felt that this was the best option at the time because of the utilities' unfamiliarity with the technology.

a) Please comment on API's current position on the option to own the RNI.

Response:

a) API's current position is that the option to own the RNI is not practical at this time, due to its small meter population and limited in-house expertise with the services currently being performed by Sensus.

VECC Question #4

Reference: Smart Meter Funding and Cost Recovery, Page 20

Preamble: API indicates the next significant challenge it faced was obtaining optimal locations for the actual siting of the 8 TGBs.

a) Please discuss why the negotiations were unsuccessful for 3 of the 7 locations planned for 3rd party radio towers.

Response:

a) Negotiations were unsuccessful for 3 of the 7 locations due to the inability to mount the proposed antennas for the AMI system at the heights identified in the propagation study. The primary reasons for the inability to mount the proposed antennas were:

- Probable RF interference with existing equipment near the required mounting height.
- Structural inadequacy of the tower to accommodate any additional equipment.
- Structural inadequacy of the tower to mount the proposed antenna at the required height.

VECC Question #5

Reference: Schedule 1, Smart Meter Recovery Model

Preamble: The smart meter capital cost and operational expense data sheet of the model shows 34 smart meter installations in 2011 for the GS>50 kW rate class.

a) Please confirm the customer classes impacted by smart meter implementation.

b) Please discuss how the costs to install 34 smart meters for the GS>50 kW customer class are reflected in the current application.

c) Please provide a breakdown of the capital and OM&A costs to install smart meters for the GS>50 kW customer class.

Response:

a) The customer classes impacted by smart meter implementation are R1 (Residential and GS<50) and Seasonal.

b) The costs to install 34 smart meters for the GS>50 kW customer class are not reflected in the current application since they were incurred in 2011 and were not associated with smart meter implementation costs. These costs were included in the 2011 capital component of API's 2010/2011 cost of service application (EB-2009-0278).

c) Based on the answers above to a) and b), these costs are not relevant to the current application.

VECC Question #6

Reference #1: Smart Meter Funding and Cost Recovery, Schedule 2
Reference # 2: Smart Meter Funding and Cost Recovery, Schedule 1

Preamble: At reference #1, Schedule 2 shows 11,535 total smart meter installations: 7,040 residential, 3,548 seasonal and 947 GS<50 kW. At reference #2, Schedule 1 shows total smart meter installation costs: $4,499,796 capital and $99,868 OM&A.

a) Please provide a comparison of original budgeted costs vs. actual costs and explain any variances greater than 5%.

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

c) Please complete the following table to show average customer costs based on meter type.

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

Response:

a) The following table compares budgeted to actual costs. Variances greater than 5% are explained below.

Item	**Budget**	**Actual**	**Variance**	**Variance %**
1.1.1 Smart Meters	1,320,974	1,049,215	-271,759	-21%
1.1.2 Installation	542,321	680,653	138,332	26%
1.1.3a WFA Hardware				
1.1.3b WFA Software				
1.2.1 Collectors	1,584,421	1,039,887	-544,534	-34%
1.2.2 Repeaters	285,120	138,137	-146,983	-52%
1.2.3 Installation	572,972	566,791	-6,181	-1%
1.3.1 Computer Hardware				
1.3.2 Computer Software		950	950	
1.3.3 Licences and Installation				
1.4.1 WAN Activation Fees				
1.5.1 Customer Equipment	133,257	194,063	60,806	46%
1.5.2 AMI Interface to CIS	18,040	10,679	-7,361	-41%
1.5.3 Professional Fees	144,286	154,276	9,990	7%
1.5.4 Integration		4,988	4,988	
1.5.5 Program Management	488,370	469,117	-19,253	-4%
1.5.6 Other AMI Capital	32,903	18,295	-14,608	-44%
1.6.1 Capabilities exceeding Reg 425/06				
1.6.2 Costs for other than Residential and GS<50				
1.6.3 Costs for TOU, CIS upgrades, web pres, MDM/R	77,220	131,390	54,170	70%
Total	**5,199,883**	**4,458,441**	**-741,442**	**-14%**

Variance Explanations

- 1.1.1 Smart Meters - The negative variance is primarily due to significant change in the CAD/USD exchange rate from the time that the original budget was finalized in late 2008 to the time that the meters were purchased. This resulted in lower per meter costs of approximately 20%.
- 1.1.2 Installation – The variance in installation costs is primarily due to:
    - An increase of $54,872 due to a greater number of API-installed meters than planned:
      ($170 API Actual - $18 Olameter Budgeted) per meter x 361 meters

- The reason for the greater number of API-installed meters is that despite assigning more meters to Olameter crews than originally planned, Olameter could not complete a total of 875 exchanges due to:
  - Inability to contact homeowners to arrange appointments for inaccessible meters (indoor meters, access blocked, etc.).
  - Inability to locate certain rural services where no address information exists.
- An increase of $61,408 due to higher than budgeted costs for planned API-installs:
  ($170 Actual - $132 Budgeted) per meter x 1616 meters
- The increase in costs for API installations were due to:
  - Increased travel due to a higher than expected number of exchanges skipped by Olameter. The skipped meters were generally scattered geographically.
  - Requirement to install A-base to S-base adapters on all poly-phase installations due to smart meters being available in S-base configurations only.
  - Re-wiring of API equipment (CT's, PT's, test switches) on non-standard installations to accommodate standard meter types.
- Costs for purchasing adapters were approximately $35,000 higher than budgeted due to a requirement to install 4 to 5 jaw adapters on all Form 3S meters at a cost of approximately $100 each. This requirement was due to Sensus Form 3S meters being available only in a 5-jaw configuration, while all existing API meters were installed as 4-jaw installations.

- 1.2.1 Collectors – The negative variance is primarily due to:
  - The same changes in the CAD/USD exchange rate described in 1.1.1 above.
  - A reduction in the TGB count from 9 to 8 following a detailed review of the propagation analysis.

- 1.2.2 Repeaters – The negative variance is primarily due to:
    - The same changes in the CAD/USD exchange rate described in 1.1.1 above.
    - A reduction in the overall FNP/FRP counts.
- 1.3.2 Computer Software – The $950 in unbudgeted spending in this category relates to the cost of an escrow agreement for the RNI source code. In the event that Sensus is unable to continue its obligations under the AMI Service Agreement, this would allow API to retrieve the RNI source code and continue to operate the AMI network.
- 1.5.1 Customer Equipment – The variance is due to:
    - Unbudgeted costs of $128,513 related to upgrades of non-standard customer equipment. 95% of these costs relate to conversion of 26 single-phase transformer-rated meter installations from 3-wire A-base to 2-wire S-base installations. This was required due to A-S base adapters not being available for this particular type of installation and the fact that smart meters were available in S-base configurations only.
    - The above costs increase was partially offset by costs of $67,707 less than budgeted for repairs to damaged customer meter bases. These cost savings were due a lower than budgeted number of damaged meter bases.
- 1.5.2 AMI Interface to CIS – The originally budgeted amount contemplated integration between the RNI and API's CIS system where the CIS system would have produced "sync files" in the format required by the MDM/R. Though the MDM/R sync files contained much more information than required by the RNI, Sensus agree to accept that format/process in order for LDC's to avoid implementing two different sync file formats for the RNI and the MDM/R. In 2009, API (the distribution division GLP at the time) became aware of the pending sale of the distribution business to FortisOntario. As API became aware that a CIS migration to FortisOntario's SAP CIS system was likely to occur prior to MDM/R integration, API elected to proceed with a lower cost modification to its

Sungard CIS system that produced RNI sync files in a simpler format than the MDM/R sync file format.

- 1.5.3 Professional Fees – Legal fees were higher than budgeted due to the following:
    - Requirement for negotiation and legal review of an API-specific contract with Sensus following completion of the Ontario-wide contract negotiations. This was required since key performance provisions in the Ontario-wide contract were based on complete coverage of an LDC's service territory, which was not practical in API's case.
    - Requirement for development of access agreements at two of the TGB sites where API had to install its own antenna structures.
- 1.5.4 Integration – These unbudgeted costs were related to CIS modifications required to produce synchronization files for API's ODS system.
- 1.5.6 Other AMI Capital – The negative variance is due to lower than budgeted ODS costs. Since the ODS RFP had not yet been issued at the time that the original budget was finalized. The ODS RFP responses contained lower than expected pricing and subsequent negotiations resulted in provincial pooling of meter counts to obtain further volume discounts.
- 1.6.3 Costs for TOU, CIS upgrades, web pres, MDM/R – The variance in this category is due to significant uncertainty in cost estimates related to CIS upgrades, MDM/R integration and TOU rollout at the time of finalizing the smart meter project budget in 2008 following the London Hydro RFP process. At the time, the detailed scope for MDM/R integration was still under development. Throughout 2009, Util-Assist worked with the D9 LDC's to more fully define the requirements for MDM/R integration and TOU billing. As a result of this effort, Util-Assist provided revised estimates for API's MDM/R integration budget in November of 2009, with total capital costs of approximately $218k, on a stand-alone basis. API's actual costs of $131,390 in this category are reflective of the fact that API was able to achieve a significant reduction in costs as a result of the collaborative MDM/R integration effort with CNPI, Westario and Grimsby.

b) The following table provides a summary of types of meters installed by class.*

	1S	*2S*	*3S*	*9S*	*12S*	*16S*	*35S*	***Total***
Residential	1	6935	150	0	5	4	0	**7095**
Seasonal	6	3504	38	0	0	0	0	**3548**
GS<50	2	631	200	41	11	54	10	**949**
Total	**9**	**11070**	**388**	**41**	**16**	**58**	**10**	**11592**

**Note that it is important to maintain an awareness of API's customer classes. The generic reference to Residential and GS < 50 are sub populations of the Residential – R1 customer class. Seasonal is a separate customer class.*

c) Since there is not a single type of meter for each class, completion of the table as laid out in the interrogatory is not possible. The attached spreadsheet provides an allocation of capital costs to each meter type, and ultimately to each rate class. The description below describes how the cost allocation was performed.

- Meter counts per customer class are identified for each type of meter.
- # of meters installed by API vs. Olameter is identified for each type of meter due to significant differences in API vs. Olameter installation costs.
- A total material cost per meter (meter + seal + ring + adapter) is calculated for each type of meter.
- An install premium of $50 per meter was assumed for all non-Form 2S single phase meters and for Form 16S 3-phase meters. An install premium of $500 was assumed for all 3-phase transformer-rated meters.
- Costs for meters, seals, rings and adapters were totaled by meter type (costs per meter * number of that type of meter installed).
- Costs for install premiums were also totaled by meter type based on the number of API installs of that type.

- Olameter install costs were assigned to Form 2S and Form 3S meters, based on invoice detail, since these were the only types installed by Olameter.
- Other Olameter-related CIS costs were split between Form 2S and Form 3S, based on the number of meters of each type installed by Olameter.
- API installation-related costs (operations labour, contract staff, and vehicles) were split between all meter types, based on number of meters of each type installed by API.
- The balance of meter and installation costs, and all other capital costs were allocated to each meter type, based on the total number of installed meters of each type, with the following exceptions:
    - 1.5.1 – Customer Equipment Costs were broken out into 2 categories (see answer to VECC 9a below for detail), and the Non-Standard Upgrades costs were allocated specifically to Form 3S and Form 9S meters
- Total costs allocated to each type of meter were then allocated by rate class, based on the number of each type of meter by class. This allocation is summarized to both the Residential/ Seasonal/GS<50 grouping requested by VECC, as well as for the R1/Seasonal rate structure that is actually in place.
- As explained in question VECC 5, costs related to GS>50 meters were tracked separately and were not included in this application or the smart meter model, and so are not included in this cost allocation analysis.
- The total ties into the total on Schedule 1 of the revised smart meter model that contains 2012 actual costs.

VECC Question #7

Reference: Smart Meter Funding and Cost Recovery, Page 25

Preamble: API states that it recognizes the fact that certain smart meter program costs were more specific to a rate class.

a) Please explain this statement more fully and provide details on the smart meter program costs that are more specific to a rate class.

Response:

a) The total costs of meters and meter installations are higher for poly-phase and transformer-rated meters. These types of meters are found in larger proportions in the GS<50 class than in the Residential or Seasonal classes. Please refer to responses to questions VECC 6 c) & 8 for more detail on costs that are specific to certain rate classes.

VECC Question #8

Reference 1: Smart Meter Funding and Cost Recovery, Schedule 1

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 summarize the methodology used by API to calculate the SMDR rate riders.

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.

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

d) Please provide a breakdown of the total Smart Meter Rate Adder Revenue collected by customer class.

e) If API is unable to provide separate smart meter revenue requirement models by customer class, please provide a detailed explanation.

Response:

a) Please refer to the live version of the Schedule 2 provided as part of the original application. Smart Meter Costs (2007 to 2012) were allocated by rate class based on actual/forecasted costs incurred. Total Return on Capital (Deemed Interest Plus Return on Equity), Amortization and PILS amounts were allocated based on the Smart Meter Costs (2007 to 2012) by class as a proportion of total Smart Meter Costs (2007 to 2012) for all classes. OM&A costs, Smart Meter Funding Adder Revenues, and Carrying Charges were allocated based on the number of meters installed by class as a proportion of the total number of meters installed. The Net Deferred Revenue Requirement was then divided by average number of metered customers in 2013, and then also divided by the 48 month

recovery period proposed, to calculate a monthly Smart Meter Disposition Rate Rider.

Please note that revised Schedules 1, 2 and 3 have been provided as part of API's response to Board Q19.

b) Completing separate Smart Meter revenue requirement models by customer class would ultimately result in the same Net Deferred Revenue Requirement by rate class as provided in the Schedule 2 provided in the original application. This is because the same principles and assumptions that were used in Schedule 2 would have to be made in the live models to provide the necessary breakdown by rate class. For example, the Smart Meter funding adders reported in tab '8. Funding_Adder_Revs' of the Smart Meter model provided in the application, were posted to the same account in the API's accounting system; therefore making it not possible to break out those amounts collected by rate class.

c) Please refer to comments provided in b) above.

d) Please refer to comments provided in b) above.

e) API is unable to provide separate Smart Meter revenue requirement models by customer class. Please refer to comments provided in b) above. Additionally, API would like to point out that Residential and GS<50 customers fall under the Residential - R1 service classification. Therefore, those costs are pooled together to calculate one common disposition rider.

VECC Question #9

Reference: Smart Meter Model V3 20120831, Tab 2

a) Please provide a breakdown and explanation of the costs by year for line 1.5.1 Customer Equipment.

b) Please provide a breakdown and explanation of the costs by year under 1.6.3 (Computer Software): Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.

c) Please discuss if API has budgeted an amount for an annual security audit and if yes, please indicate where this cost is reflected in the smart meter model.

Response:

a) The following table provides a breakdown of costs per year for "1.5.1 – Customer Equipment".

Category	**2009**	**2010**	**2011**	***Total***
Repair Damaged Meter Base	$2,117	$47,099	$16,333	***$65,550***
Non-Standard Upgrades	$121,573	$582	$6,358	***$128,513***
Total	***$123,690***	***$47,681***	***$22,692***	**$194,063**

Costs in the "Repair Damaged Meter Base" category relate to the repair of customer-owned meter bases. 30 meter bases were repaired at an average cost of approximately $2185. This cost includes API costs to disconnect the service upon discovery of the damaged meter base, costs from a local contractor to repair the customer-owned equipment, and API costs to reconnect the service on completion of repairs.

Costs in the "Non-Standard Upgrades" category include:

- 3-wire A-base to 2-wire S-base conversions for 26 single-phase transformer-rated installations in 2009. This was required due to A-S adapters no longer being available for this particular type of installation and the fact that smart meters were available in S-base configurations only.
- Upgrade of a small number of 2½-Element installations to 3 Element in 2010 and 2011 to comply with Measurement Canada Bulletin E-24 – Policy on Approval and Use of 2½ Element Metering.

b) Please reference response provided to Board Q11. API's portion of the combined MDM/R and TOU costs totalled $43,369 in 2011 and $60,000 forecasted per original application.

c) No.

VECC Question #10

Reference: Smart Meter Funding and Cost Recovery, Schedule 2 & Schedule 3

a) Please confirm the proposed time period to collect the SMDR and SMIRR.

b) Please confirm the source of the net deferred revenue requirement of $1,740,361 and the incremental revenue requirement of $733,567.

Response:

a) The proposed time period to collect the SMDR is 48 months, and the SMIRR is 12 months.

b) The net deferred revenue requirement of $1,740,361 can be found in cell C25 of the live Schedule 2 model submitted in the original application. This amount is cell G65 in tab '9. SMFA_SMDR_SMIRR' of Schedule 1 less the amount in cell U42 of the same tab in Schedule 1. The incremental revenue requirement of $733,567 can be found in cell C18 of the live Schedule 3 model submitted in the application. This amount does not agree to cell G73 in tab '9. SMFA_SMDR_SMIRR' of Schedule 1 due to formula errors in the Schedule 1 model. Total Return on Capital of $252,591 in cell C13 of Schedule 3 is the sum of cell U47 in tab '5. SM_Rev_Reqt' of Schedule 1 and cell N30 in tab '8B. Opex_Interest_annual' of Schedule 1. Amortization amount of $409,940 in cell C14 of Schedule 3 is equal to cell U58 in tab '5. SM_Rev_Reqt' of Schedule 1. PILS amount of $71,036 in cell C17 of Schedule 3 is cell Q59 in tab '7_Taxes_PILs' of Schedule 1.

Please note that revised Schedules 1, 2 and 3 have been provided as part of API's response to Board Q19.

VECC Question #11

Reference: Smart Meter Funding and Cost Recovery, Page 32

Preamble: The evidence indicates API will design and propose rates in its 2013 IR application to dispose of the balances in a manner consistent with the Board's Decision in the matter of EB-2012-0152. The proposed smart meter cost recovery rate riders are included in the proposed Tariff of Rates and Charges effective January 1, 2013.

a) Please provide the calculation for the smart meter cost recovery rate riders by customer class as proposed in the Tariff of Rates and Charges effective January 1, 2013.

Response:

a) The calculation for the smart meter cost recovery rate riders by customer class as proposed in the Tariff of Rates and Charges effective January 1, 2013 has been provided in the Application. The calculation is shown in the Rate Design Model, "API_APPL_IRM_RateDesignModule_2013IR_121015", on tab "2012 Non-RRRP Rate Design".

Additional derivations of the Smart Meter Deferred Revenue Rate Rider and the Incremental Smart Meter Revenue Rate Rider have been provided in response to Board Staff Interrogatory No. 21.