



uniongas

A Spectra Energy Company

July 20, 2010

Ontario Energy Board
2300 Yonge Street, Suite 2700
Toronto, Ontario
M4P 1E4

Attention: Ms. Kirsten Walli, Board Secretary

**RE: EB-2010-0055 - Union Gas Limited - 2011 Demand Side Management Plan –
Interrogatory Responses**

Dear Ms. Walli:

Please find enclosed two copies of Union's responses to the interrogatories for the above noted proceeding.

Should you have any questions, please contact me at (519) 436-5476.

Yours truly,

[Original signed by]

Chris Ripley
Manager, Regulatory Applications

cc: Crawford Smith (Torys)
EB-2010-0055 Intervenors

UNION GAS LIMITED

Answer to Interrogatory from
Board Staff

Ref: Union Gas 2011 DSM Plan dated April 30, 2010

Union Gas Limited (“Union”) is seeking approval for its 2011 Demand Side Management (“DSM”) plan.

- (a) Please identify any deviations in Union’s 2011 DSM plan from the framework and budget escalators established for the 2007-2009 three-year DSM plan approved in DSM Generic decision EB-2006-0021.

If Union has deviated from the approved framework decision, please comment on the specific nature of the deviations and provide the rationale for the decision to do so.

Response:

Union’s 2011 DSM plan is based on the existing DSM framework established in EB-2006-0021. Union has not deviated from the existing framework.

UNION GAS LIMITED

Answer to Interrogatory from
Board Staff

Ref: Letter to the Board from the Minister of Energy and Infrastructure dated July 5, 2010, regarding Low-Income Energy Customers

Given the recent letter to the Board dated July 5, 2010, from the Minister of Energy and Infrastructure regarding low-income energy customers, does Union intend to make any changes to its low-income programs, in terms of the total budget and types of programs it intends to undertake in 2011?

Response:

Union will consult with stakeholders and the Board and, upon Direction from the Board, will revise the 2011 Low-Income plan.

UNION GAS LIMITED

Answer to Interrogatory from
Canadian Manufacturers & Exporters ("CME")

Ref: 2011 DSM Plan – General

The Board has confirmed that Union's 2011 DSM Plan should be filed under the multi-year DSM framework established in EB-2006-0021 (the "existing DSM framework"). Please identify all elements of Union's proposed 2011 DSM Plan, if any, that Union considers to be changes or modifications to the existing DSM framework. In answering this question, please exclude measures and updated input assumptions as filed with the Board on April 30, 2010 in Union's 2010 Input Assumption Update.

Response:

Please see the response at Exhibit B1.01.

UNION GAS LIMITED

Answer to Interrogatory from
Canadian Manufacturers & Exporters ("CME")

Ref: Section 2.10 - Electricity Conservation and Demand Management ("CDM"),
page 12 of 85

Union states that, when appropriate, it will work with other LDCs in the delivery of DSM and CDM initiatives. Where that cooperation requires partnerships or the sharing of costs and/or benefits, Union intends to enter into agreements which predefine the attribution of benefits arising from those activities. In this regard, Union asserts that attribution is most appropriately determined by the parties to the agreement, recognizing that the total value of resource savings claimed by all parties should not exceed the benefits generated by the program. CME wishes to better understand the approvals, if any, that Union is seeking from the Board in this proceeding with respect to CDM. To this end, please provide answers to the following questions:

- a) Is Union asking the Board to approve the proposition that attribution is most appropriately determined by parties to an agreement? If so, please:
 - i) Confirm whether this is a change to the existing DSM framework. If not, why not? and
 - ii) Provide an explanation as to why the Board should make that determination in this Application instead of in the ongoing DSM Guidelines for Natural Gas Distributors (EB-2008-0346).
- b) Does Union believe that attribution is most appropriately determined by the parties to an agreement even where one of the parties is a non-regulated entity? If not, how should attribution be determined in such a situation?
- c) Does Union expect to earn a profit from the delivery of CDM initiatives? If not, why not? If yes, please explain whether those earnings will be allocated to Union's shareholder or Union's ratepayers.
- d) Will Union's ratepayers financially contribute to the deliver of CDM initiatives? If yes, please explain why natural gas ratepayers should pay for CDM initiatives.
- e) Will TRC benefits generated by CDM initiatives be included in Union's SSM calculation? If yes, please:
 - i) Explain how, under the existing DSM framework, Union is permitted to include TRC savings from CDM initiatives in the calculation of its DSM SSM

calculation; and

- ii) Confirm whether Union's SSM target should be incrementally adjusted to account for the TRC benefits from CDM initiatives that will supplement TRC benefits from DSM initiatives. If it is Union's position that the SSM target should not be adjusted, please explain why not.

Response:

- a) i) Due to the potential conflict between the existing, Board-approved, attribution methodology and the attribution methodology contained in the draft CDM guidelines, Union will clarify, in advance of partnering with another regulated entity, the level of attribution between Union and the counterparty. The Board is clear in both EB-2006-0021 and EB-2008-0037 (through the illustration of Case 2 on page viii in Appendix A, Section 2.0) that in jointly delivered DSM/CDM programs each participating distributor is allowed to claim all of the benefits associated with the energy type they distribute in their service area as well as the corresponding portion of water benefits. Union recognizes total program benefits should not exceed a maximum attribution rate of 1.0 (i.e. 100% of the benefits for the program). Should the rules of attribution for partnership programs outlined in the final CDM Code differ from those in the current DSM framework, Union will address those inconsistencies with the Board, at that time.

If Union was to work with non-regulated entities, which is not anticipated in 2011, Union will follow the centrality principle as it is outlined and intended by the Board in the current DSM framework.

- ii) For its 2011 DSM Plan, Union is following the existing DSM framework.
- b) Union believes that attribution is most appropriately determined in advance of running a program by the parties to an agreement irrespective of whether partners are regulated or non-regulated entities. For the 2011 DSM Plan, however, Union is following the existing framework.
- c) There are two ways in which Union contemplates becoming involved in CDM.

The first way is for Union to collaborate with electric utilities on the delivery of DSM/CDM programs to bring about cost efficiencies, customer participation and enhance customer satisfaction. These programs would fall into the DSM framework and thus follow the existing rules for DSM investment and returns.

The second way is for Union to deliver CDM programming via “retained delivery”. This involvement with CDM would be outside of the DSM framework. The costs and benefits would fall outside of the existing DSM framework and would accrue to the shareholder.

- d) Union’s ratepayers will not financially contribute to the delivery of CDM initiatives that are outside of the DSM framework, i.e. retained delivery programs. Where Union partners with electric utility for joint program design and delivery, costs relevant to the gas portion of the program would be included in the DSM framework and allocated on a fully allocated basis.
- e) In collaborative initiatives, Union would include those TRC benefits that were applicable to the natural gas portion and related water portion of the program as per the rules stated in the Decision with Reasons EB-2006-0021 and fully illustrated in the Guidelines for Electricity Distributor Conservation and Demand Management EB-2008-0037 Appendix A, Section 2.1.1, Case 2 and Union would include TRC benefits generated in our SSM calculation..

In retained delivery initiatives, Union would not include the TRC benefits generated in the SSM calculation.

- i) In collaborative initiatives Union would include applicable portions of the TRC benefits to the SSM calculation. Given collaborative programs will likely involve a program already in our existing portfolio, and therefore drive TRC benefits through an electric component, Union may well see losses in its forecasted TRC benefits as a result of collaboration. Union understands that there may also be situations where it is able to grow the size of TRC benefits for a given program by collaborating.

At this point, the net TRC benefits or losses to Union from collaboration are unknowable. Irrespective, it is Union’s belief that collaboration between regulated entities in the delivery of DSM/CDM is the right thing to do. It is the right approach for the customer and will ultimately lead to more efficiently run energy conservation programming in the province. Pursuing collaborative programs is consistent with the signals being sent by the Government and the Ontario Energy Board.

ii) Union's SSM target should not be adjusted to account for TRC benefits from partnership CDM initiatives. Any change in the SSM calculation would be inconsistent with the Board's direction in its January 7, 2010 letter requiring Union to use the existing DSM framework.

UNION GAS LIMITED

Answer to Interrogatory from
Industrial Gas Users Association ("IGUA")

Ref:

- Union Gas Limited 2011 DSM Plan (2011 DSM Plan), page 5, Table 1 *2011 DSM Planned Budget*, Distribution Contract; Plan 2010 \$4,714,000, Plan 2011 \$4,990,000.
 - 2011 DSM Plan, page 4; *Union does not anticipate the actual sector level spending in 2011 will vary significantly from the ratios in 2008 and 2009. Union may adjust the planned sector level spending during the market planning process that will be undertaken in Q4 2010.*
 - 2011 DSM Plan, page 29: *The program design for the distribution contract market in 2011 will remain consistent with the 2007-2010 DSM Plans... In some instances, changes to program funding levels are required to encourage more difficult upgrades of process equipment, and the implementation of projects with longer paybacks.*
 - 2011 DSM Plan, page 33: *Metering and Targeting requires a significant capital investment as the contract rate customers involved typically have large processes and facilities which are being monitored. Since the capital required to support this element is significant, Union will continue to investigate the concept of a Metering and Targeting program element by investigating, researching and piloting various initiatives during 2011. It is Union's intent to advance a Metering and Targeting program element as part of its 2012 DSM submission and to allocate budget dollars specific to this initiative.*
1. For the Distribution Contract rate classes, the 2011 Plan DSM budget is an increase over the plan 2010 budget of just under 6%.

Please confirm that in seeking approval of its 2011 Plan, it is Union's intention and representation that DSM program spending for the Distribution Contract rate classes will remain in and around \$5 million, subject to the budget exceedence of 15% permitted pursuant to the "Financial Package Agreement" endorsed by the Board in the EB-2006-0021 (Phase I) Decision with Reasons (page 30).

Response:

Union plans that the DSM spending for the Distribution Contract rate classes will remain in and around \$5 million.

UNION GAS LIMITED

Answer to Interrogatory from
Industrial Gas Users Association ("IGUA")

- Ref: 2011 Plan, page 85. The *Research Plan* included in the 2011 Plan refers to research regarding higher efficiency options for natural gas fired electrical power generation plants.
- a) Please indicate whether Union's power generation gas distribution customers are considered part of the "Contract Customer" rate class grouping used in DSM planning.
 - b) Please indicate what DSM budget expenditures are anticipated for DSM research or programming related to the power generation sector in 2011.
 - c) Please indicate whether expenditures on DSM research or programming for the power generation sector are recovered from non-power generation industrial gas distribution customers.
 - d) Given the vibrant gas fired power generation sector in Ontario, and the participation in that sector of provincially owned Ontario Power Generation and the Ontario Power Authority, an agency of the Provincial Government, please explain the basis upon which Union justifies funding investigation of natural gas fired electrical generation technologies with gas distribution ratepayer funds.
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Response:

- a) Yes, Union's power generation distribution customers are included in the "Contract Customer" rate class grouping used in DSM planning.
- b) The amount of program expenditures anticipated to be spent on DSM for power generation distribution customers is dependent on the level of participation by customers throughout the year. However, in 2009 Union spent \$132,845 on incentives for power generation customers. Union's research priorities for 2011 will be determined in Q4 2010. There were no research projects related to power generation customers in 2010.
- c) Expenditures on DSM research and programming for the power generation sector are recovered across all rate classes.

- d) Natural gas driven electrical power generation plants consume a significant quantity of natural gas. The research funding is for the investigation of technologies which optimize the efficient use of natural gas by power generation customers, which is consistent with our overall DSM program design parameters and DSM framework.

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition ("VECC")

Ref: Section 2.1 and Table 1

Preamble: The budget allocation to low-income DSM programs will be \$1.903 million which is greater than 14% of Union's total residential DSM budget, and the allocation for Union's low-income market transformation program will be 14% of the total market transformation budget as established in EB-2006-0021

a) Please provide a breakdown by year of the information in Table1 as follows:

- i. Total Residential budget and Actual Spend
- ii. LI Program Budgets and Actual Spend
- iii. LI MT Budgets and Actual Spend
- iv. LI Program Budgets and Actual Spend as Percentage of Residential Budget
- v. LI MT Budgets and Actual Spend as Percentage of Residential Budget

Response:

i.

Residential (not including Low Income) Budgets & Actual Spend	2008	2009	2010	2011
Budget	\$2.433 million	\$2.695 million	\$2.964 million	\$3.139 million
Actual Spend	\$3.044 million	\$2.838 million	Not available	Not available

ii.

LI Program Budgets & Actual Spend	2008	2009	2010	2011
Budget	\$1.430 million	\$1.573 million	\$1.732 million	\$1.903 million
Actual Spend	\$1.445 million	\$2.170 million	Not available	Not available

iii.

LI MT Budgets & Actual Spend	2008	2009	2010	2011
Budget	\$0.154 million	\$0.169 million	\$0.186 million	\$0.205 million
Actual Spend	\$0.122 million	\$0.165 million	Not available	Not available

iv.

	2008	2009	2010	2011
Residential (not including LI) Budget	\$2.433 million	\$2.695 million	\$2.964 million	\$3.139 million
LI Budget	\$1.430 million	\$1.573 million	\$1.732 million	\$1.903 million
LI Budget as % of Residential (not including LI) Budget	59%	58%	58%	61%
Residential (not including LI) Actual Spent	\$3.044 million	\$2.838 million	Not available	Not available
LI Actual Spend	\$1.445 million	\$2.170 million	Not available	Not available
LI Actual Spend as % of Residential (not including LI) Actual Spend	47%	76%	Not available	Not available

v.

	2008	2009	2010	2011
Residential (not including LI) Budget	\$2.433 million	\$2.695 million	\$2.964 million	\$3.139 million
LI MT Budget	\$0.154 million	\$0.169 million	\$0.186 million	\$0.205 million
LI MT Budget as % of Residential (not including LI) Budget	6%	6%	6%	7%
Residential (not including LI) Actual Spend	\$3.044 million	\$2.838 million	Not available	Not available
LI MT Actual Spend	\$0.122 million	\$0.165 million	Not available	Not available
LI MT Actual Spend as % of Residential (not including LI) Actual Spend	4%	6%	Not available	Not available

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition ("VECC")

Ref: Section 2.3 SSM

Preamble: In the 2011 DSM Plan, Union will be eligible to earn a SSM incentive payment which will be set by the established, Board approved, formula detailed below. The SSM payout associated with Union's achievement of its TRC target is \$4.750 million.

- a) Provide the 2009 Actual, 2010 estimate and 2011 forecast of TRC for the Low Income Program and the LI MT Program.
- b) Provide the associated SSM calculation(s).
- c) Provide the LI SSM as a percentage of the total Residential SSM for the years 2009-2011.

Response:

- a) Union's unaudited 2009 TRC for the Low-Income Program is \$15.155 million. Union is working towards a TRC forecast of \$18 million for 2010. Assuming Union achieves the 2010 target the TRC forecast for 2011 would be approximately \$20 million, pending any changes to Union's Low-Income DSM program as a result of the Board's letter dated July 7, 2010.

Union's existing, and planned, Low-Income Market Transformation Programs for 2009, 2010 and 2011 do not generate TRC.

- b) Union's unaudited 2009 TRC for Low-Income Programs is \$15.155 million, generating approximately \$0.391 million in unaudited SSM. Union expects the SSM contribution of Low-Income Programs to trend similarly in 2010 and 2011.

Union's unaudited 2009 Low-Income SSM is equivalent to approximately 37% of the total Residential SSM. Union forecasts that the 2010 and 2011 Low-Income SSM as a percentage of the total Residential SSM to trend comparably to 2009.

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition ("VECC")

Ref: Section 2.3

Preamble: An additional incentive of \$0.5 million will be available for market transformation activities. Union will use a scorecard approach to evaluate program results achieved towards the incentive payment. A balanced scorecard is effective as it allows for the measurement of the indicators of program results which extend beyond unit energy savings. This approach drives Union to pursue program opportunities which would be limited if subjected to measurement under TRC.

- a) Clarify which initiatives will be measured under a scorecard in 2010 and whether these are new or pre-existing initiatives.
 - b) Provide a copy of the Scorecard and explanatory notes.
 - c) Comment why Union is not proposing a scorecard approach for LI Programs but only for MT programs in 2011? In the answer refer to EGD's proposal and to Union's Scorecard proposed under the OEB's LEAP CWG initiative.
 - d) Will Union be proposing a LI Program Scorecard for 2012? Provide details.
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Response:

- a) Union will continue to focus on the pre-existing Market Transformation Program Drain Water Heat Recovery Program ("DWHR") in 2011.
- b) The scorecard and explanatory notes for the DWHR have not yet been established for 2011. Union will work with the EAC to develop the 2011 scorecard.
- c) As directed by the Board, Union's 2011 DSM plan is based on the existing DSM framework established in EB-2006-0021. Scorecard approaches to low-income programs are not approved under the established DSM framework in EB-2006-0021. The Low -Income Energy Assistance Program ("LEAP") Conservation Working Group discussions were suspended in 2009 by the Ministry of Energy and Infrastructure and as such, were not considered for the 2011 DSM plan.
- d) Union will submit any proposals for the 2012 DSM plan in the proceeding establishing the next long-term DSM framework.

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition ("VECC")

Ref: Section 2.6 DSM Screening

Preamble: The TRC test is a benefit/cost test that determines the net present value of a DSM measure, program or portfolio's savings. The benefits are the costs avoided by the reduction in resource consumption (natural gas, electricity, and water) and the costs are the participant (equipment) and program costs. DSM measures are screened using the TRC test and must yield a benefit/cost ratio of 1.0 or more to be included in the portfolio.

- a) Provide the TRC screening results for the 2010 and 2011 LI Helping homes conserve program.
 - b) Provide the TRC screening results for the 2010 and 2011 LI Weatherization program.
-

Response:

- a) The 2010 TRC screening results for the LI Helping Homes Conserve Program are the following Board approved measures and associated TRC values:
- b)
 - 1.25 gpm shower head, replacing existing 2.0-2.5 gpm shower head: \$276 TRC, 23.9 B/C Ratio
 - 1.25 gpm shower head, replacing existing 2.6+ gpm showerhead: \$468 TRC, 38.8 B/C Ratio
 - 1.5 gpm kitchen aerator: \$158 TRC, 97.3 B/C Ratio
 - 1.0 gpm bathroom aerator: \$39 TRC, 18.5 B/C Ratio
 - 2m foam pipe wrap: \$39 TRC, 19.9 B/C Ratio
 - Programmable thermostat: \$174 TRC, 8.1 B/C Ratio

The 2011 input assumptions are assumed to be the same as 2010 unless changed through the audit or evaluation process. The 2011 avoided costs will also be updated in Q4, 2010, which will impact the above noted TRC values.

- c) The 2010 TRC screening results for the weatherization program is through the use of the NRCan HOT2000 software and the results are based on the custom requirements for each home. The 2010 actual results will not be known until year end results are finalized.

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition ("VECC")

Ref: Section 3.1.3 Existing LI Customers

Preamble: Helping Homes Conserve offers low-income customers the free installation of various measures, including aerators and programmable thermostats.

- a) Why does Union not install faucet aerators? Distinguish Social/affordable housing units from other homes.
 - b) Does Union have data on actual aerator installations? If so please provide the metrics. If not why not?
 - c) Does Union install programmable thermostats? Distinguish Social/affordable housing units from other homes.
 - d) Does Union have follow up data on the actual # of PTs that are correctly programmed? If so please provide the metrics. If not why not?
-

Response:

- a) Union's program design is to provide the faucet aerators to customers but does not include installation. Faucet aerators are simple measures which customers can easily install. This approach ensures the effective utilization of Union's DSM budget. Union does not distinguish social/affordable housing units from other homes for the Helping Homes Conserve Program.
- b) Union does a study to determine aerator installation rates for the general market program. Currently, a similar study is not replicated in the LI market. In discussion with its Evaluation and Audit Committee during the 2009 audit taking place now, Union may commence a similar study in the LI market.
- c) Union installs programmable thermostats as part of the Helping Homes Conserve Program. Union does not distinguish social/affordable housing units from other homes for the Helping Homes Conserve Program.
- d) Union's Helping Homes Conserve Program includes installation and programming of all programmable thermostats by a technician. This ensures that programmable thermostats are correctly programmed. In addition, the technician provides a tutorial on how to program the thermostat and also provides the customer a detailed instruction leaflet for future reference.

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition ("VECC")

Ref: Section 3.1.3 Existing LI Customers

Preamble: Union's weatherization program will continue to target the reduction of natural gas consumption for space heating in 2011 at no cost to the customer. The program provides benefits beyond energy savings by contributing towards increased comfort and indoor air quality in the home.

- a) Provide the historic and 2011 forecast metrics for the Weatherization program for Social/affordable housing units and private homes separately:
- i. # Units
 - ii. Total energy savings
 - iii. Average energy savings
 - iv. Average reduction in gas use and bill savings

Response:

	<u>Private Housing (2009)</u>	<u>Social Housing (2009)</u>
Number of Units	15	60
Total Gas Savings (m3)	29,131	36,023
Total Electricity Savings (kWh)	4,605	4,967
Average Gas Savings (m3)	1,942	600
Average Electricity Savings (kWh)	307	83
Average Gas Bill Savings*	\$401.81	\$144.75

*Based on April 2010 rates,
Results audited by our contractors via HOT2000 program

Union is forecasting 125 weatherization projects respectively for 2010 and 2011. Due to the inconsistent building stock in Union's franchise area the additional forecasted metric details are not available to report. In addition, recognizing that the 2010 and 2011 TRC targets are not yet established the following forecasted numbers reflecting weatherization projects may be subject to change.

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition ("VECC")

Ref: Section 3.1.3 Existing LI Customers

Preamble: The Weatherization program will operate on a custom basis in 2011. Customers will receive a pre and post energy audit conducted by certified energy auditors using industry standard testing methods and tools for each home. The energy audits will be provided at no cost to the customer. Upgrades in the home are determined by the initial energy audit results.

- a) Provide the average costs for each of the pre (A) and post (B) audit.
- b) Provide the difference between the average savings determined by B audits of all units and that of a sample of:
 - i. 1 in 2
 - ii. 1 in 3 and
 - iii. 1 in 5
- c) Provide the associated cost differences based on the targeted units in the 2010 and 2011 plans.
- d) Comment on the trade-offs between performing B audits on all units vs sampling. Distinguish Social/Affordable housing units (which may be similar in one location) from other units.

Response:

- a) The forecasted average costs of the pre (A) audit is \$150.00 per household and the forecasted average of the post (B) audit is \$100.00 per household.
- b) Union currently does not conduct sampling on energy audits. Performing a post (B) audit on all households that are weatherized would ensure that all energy savings are accurately captured. Using a sampling methodology would save between \$6,200 and \$10,000 (\$100/audit), depending on the sample size (1 in 2 or 1 in 5) based on the 2011 forecast of 125 weatherized household units. This may be a suitable approach if all housing was similar in nature (e.g. social housing townhouse complex) but would not be suitable for private housing which may see substantially different measures

and associated savings being installed in each household.

- c) Union expects that the cost of B audits in 2010 and 2011 will remain the same per unit; \$100 per audit.
- d) Please see response at b).

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition ("VECC")

Ref: Appendix C – 2011 Research Plan: Customer and Program Development Plan
Low Income

- a) Low-Income Energy Use in Residential Homes by Segment project. Please provide resources (internal and external) and Budgets (in house and external); timing and deliverables.
- b) Low-Income Energy Use in Multifamily Buildings by Segment project. Please provide resources (internal and external) and Budgets (in house and external); timing and deliverables.

Response:

The 2011 Research Plan will be finalized in Q4, 2010, therefore resources, budgets, timing and deliverables are not available.

UNION GAS LIMITED

Answer to Interrogatory from
Vulnerable Energy Consumers Coalition ("VECC")

Ref: No reference

a) Provide a copy of the 2009 Annual Report.

Response:

Union expects to file the 2009 Audit Report, the 2009 Annual Report and the Summary of Results and Responses Report on or before August 31, 2010. Union is currently in consultation with the Auditor and EAC to finalize the above noted reports.