David I. Poch Barrister tel. (613) 264-0055 fax (613) 264-2878

30 January 2013

Ontario Energy Board
2300 Yonge St., 27th Floor
Toronto, ON
M4P 1E4

Attn: Ms Kirsten Walli
Board Secretary

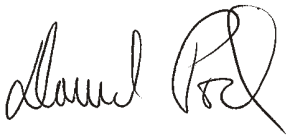
By electronic filing and e-mail

Dear Ms Walli:

Re: EB-2012-0337 Union Gas Large Volume Customer DSM – GEC Cross Materials

Attached is a copy of the compendium of materials GEC will likely refer to during cross-examinations. All materials are from the existing record.

Sincerely,



David Poch

Cc: All Parties

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EB-2012-0337

GEC CROSS EXAMINATION REFERENCES

their facilities. Customer incentive funds are dispersed via an aggregated pool approach where projects are supported based on their lifetime natural gas savings and cost-effectiveness.

In 2013 and 2014, Union is proposing to deliver the same program offerings and maintain a consistent program budget, escalated annually for inflation. All Rate T1[1] customers will maintain access to an aggregate pool of customer incentives throughout the year. This approach has been successful in driving projects for these customers historically and is consistent with the DSM program structure in Union's bundled contract rate classes that serve other similarly sized customers.

Union is proposing to change the customer incentive budget process for Rate T2 and Rate 100 customers to a new Direct Access budget mechanism. Instead of an aggregate pool approach, at the beginning of the year these customers will each have direct access to the full customer incentive budget they pay in rates. They must use these funds to identify and implement energy-efficiency projects, or lose the funds to be used by other customers in their rate class. This “use it or lose it” approach ensures each customer has first access to the amount of the customer incentive budget funded by their rates.

The Direct Access budget mechanism is being introduced in direct response to feedback received from Union’s largest customers at the focus group sessions. Rate T2 and Rate 100 customers will have enhanced flexibility to access a greater level of incentives for individual large projects or studies. They will know their dedicated amount of customer incentive budget for the program year. This funding can be incorporated into their overall budget planning process with the knowledge that available funds will either be used for qualifying activities to deliver value to them, or the funds will be moved to the aggregate pool for use by others. By motivating each customer to take action with their available incentive budget, Union’s program also aims to minimize intra-rate class cross subsidization. Additionally, Union has removed the ability to

[1] As per Rate T1 proposal in Union’s 2013 Cost of Service Application (EB-2011-0210)

UNION GAS LIMITED

Answer to Interrogatory from
Green Energy Coalition ("GEC")

Union has proposed to treat the new T2 customers differently than the new T1 customers. Specifically, it has suggested that T1 customers be treated more like other rate classes (just an aggregate pool of DSM incentive funds, ability to access and spend an additional 15% from the DSMVA, etc.). If these customers are more like other customer classes, why treat them differently in any way (i.e. why not special rules just for the new T2 and Rate 100 customers)?

Response:

The DSM Guidelines state, "*The Board is of the view that large industrial customers possess the expertise to undertake energy efficiency programs on their own. As a result, ratepayer funded DSM programs for large industrial customers are no longer mandatory. If any are proposed, they will be considered on their merits. The Board defines large industrial gas customers as those in rate classes 100 and T1 for Union, and rate class 115 for Enbridge.*"[1] As a result, a separate T1 and Rate 100 program and scorecard were created and filed for 2012 to 2014 in EB-2011-0327.

A Settlement Agreement (EB-2011-0327) was filed on January 31, 2012 and approved on February 23, 2012. The parties to the Settlement Agreement supported the merits of the Large Industrial T1/R100 program and agreed to continue the program in 2012.

Union then took into account the interests of its customers and stakeholders by holding consultations sessions. This included two focus group meetings, five consultation meetings with customers and stakeholders, and presenting and receiving feedback on the proposed program at the August 15, 2012 DSM Consultative meeting.

In response to feedback received from Union's customers from the consultation efforts, the Direct Access budget mechanism is being introduced for Rate T2 and Rate 100. Union proposes to continue to treat new Rate T1 customers in the same manner to maintain consistency with the 2012 Settlement Agreement (EB-2011-0327). The new Rate T1 customers, however, will receive the same program offerings in 2013 as similar type customers in other rate classes.

[1] Ontario Energy Board, Demand Side Management Guidelines for Natural Gas Utilities. (EB-2008-0346). Section 8.2, Page 26.

Low-income program costs and overheads for each Large Volume rate class is provided at Exhibit A, Tab 1, Schedule 1.

Union will track the variance between the DSM budget included in rates, by rate class, and the actual DSM dollars spent by rate class. The variance, by rate class, will be disposed of annually through Union's deferral disposition application.

In the event Union qualifies to access the 15% allowable overspend, Union will only access the overspend for Rate T1 up to a maximum of 15% of the program and portfolio budget allocated to Rate T1. For 2013, this value is $1.697 million[3] and the resulting maximum 15% overspend claim is $0.255 million. The 2013 value will be escalated by inflation for the 2014 program year. The 15% overspend will not be accessed for, nor recovered from, Rate T2 or Rate 100.

Union has imposed additional restrictions on the 15% overspend relative to 2012 to provide greater rate certainty for Large Volume customers. In 2012 each large volume rate class had a potential deferral due to the 15% overspend of $0.786 million. This has been reduced for Rate T1 and eliminated for Rate T2 and Rate 100 in 2013 and 2014.

Consistent with the EB-2011-0327 Agreement, Union proposes that, at its sole discretion, it be allowed to transfer a maximum of $0.500 million of the program budget allocated to Rate T1, Rate T2 or Rate 100 to Rate T1, Rate T2 or Rate 100 respectively (exclusive of the 15% allowable overspend). Further, Union will not transfer budget dollars from any other part of the overall DSM budget into Rate T1, Rate T2 or Rate 100.

[3] Rate T1 program and portfolio budget allocation is provided in Schedule 1. 2013 inflation is based on the inflation rate of 2.22%.

Filed: 2012-10-25
EB-2012-0337
Exhibit B6.2
Attachment 1

UNION GAS LIMITED
Rate Class Impacts of DSM
2008 to 2011 Actuals and 2012 Forecast
($000's)

Line No.	Particulars	Direct DSM in Rates	Indirect DSM	DSMVA in Deferrals	Audited SSM in in Deferrals	LRAM in Deferrals	Total
		(a)	(b)	(c)	(d)	(e)	(f) = (a+b+c+d+e)
	Rate 100						
1	**2008** (1)	1,521	264	(241)	2,988	(8)	4,523
2	**2009** (2)	1,699	264	254	1,714	46	3,977
3	**2010** (3)	1,896	264	541	1,735	66	4,502
4	**2011** (4)	2,112	264	(1,278)	705	85	1,887
5	**2012** (5)	1,572	-				1,572
	Rate T1						
6	**2008** (1)	1,068	187	1,328	1,397	8	3,989
7	**2009** (2)	1,194	187	1,963	2,241	29	5,614
8	**2010** (3)	1,332	187	1,012	1,419	35	3,985
9	**2011** (4)	1,484	187	2,880	4,402	70	9,022
10	**2012** (5)	3,669	-				3,669

Notes
(1) DSMVA & LRAM reflect the deferral account balance disposed of in EB-2009-0052, effective October 1, 2009.
(2) DSMVA & LRAM reflect the deferral account balance disposed of in EB-2010-0039, effective October 1, 2010.
(3) DSMVA & LRAM reflect the deferral account balance disposed of in EB-2011-0038, effective April 1, 2012.
(4) DSMVA & LRAM reflect proposed deferral account balances in EB-2012-0087.
(5) EB-2011-0327, Settlement Agreement, Appendix C.

as broad customer participation for these customers. Ensuring each customer participates in the program minimizes cross subsidization within each rate class.

Table 4: 2013 and 2014 Large Volume Rate T1/Rate T2/Rate 100 Scorecards

2013 Large Volume Rate T1 / Rate T2 / Rate 100 Scorecard				
Metric	**Metric Target Levels**			**Weight**
	Lower Band	**Target**	**Upper Band**	
Rate T2 / Rate 100 Cumulative Natural Gas Savings (m^3)	75% of Target	2012 Post Audit T2/R100 Customer Incentive Cost Effectiveness (m^3 per Customer Incentive Dollar Spent)*($2.383 million)*(1-0.30)	110% of Target	20%
Rate T2 / Rate 100 Percentage of Customer Incentive Budget Spent (%)	60%	70%	80%	20%
Rate T1 Cumulative Natural Gas Savings (m^3)	75% of Target	2012 Post Audit T1 Customer Incentive Cost Effectiveness (m^3 per Customer Incentive Dollar Spent)*($1.104 million)	125% of Target	60%

2014 Large Volume Rate T1 / Rate T2 / Rate 100 Scorecard				
Metric	**Metric Target Levels**			**Weight**
	Lower Band	**Target**	**Upper Band**	
Rate T2 / Rate 100 Cumulative Natural Gas Savings (m^3)	75% of Target	2013 Post Audit T2/R100 Customer Incentive Cost Effectiveness (m^3 per Customer Incentive Dollar Spent)*($2.383 million)	110% of Target	20%
Rate T2 / Rate 100 Percentage of Customer Incentive Budget Spent (%)	2013 Post Audit Result (%)	2013 Post Audit Result (%) + 5%	2013 Post Audit Result (%) + 10%	20%
Rate T1 Cumulative Natural Gas Savings (m^3)	75% of Target	2013 Post Audit T1 Customer Incentive Cost Effectiveness (m^3 per Customer Incentive Dollar Spent)*($1.104 million)	125% of Target	60%

Scorecard Metrics Description

a. Rate T2/Rate 100 Cumulative Natural Gas Savings (m^3)

- The total natural gas saved for all projects delivered to Rate T2 and Rate 100 customers for the term of their measure life, net of adjustment factors such as free ridership and spillover.

which is assigned 20% of total weight and half of the weight assigned to T2/Rate 100 customers – related to spending of customers' DSM budgets.
- 60% of the weight is assigned to performance on T1 customers, only 40% to performance on T2/Rate 100 customers.
- The 2014 scorecard metrics are pegged to 2013 results, with no required increases for the savings metrics (i.e. if the 2014 result is the same as the 2013 result, the Company would meet its target).

Each of these features is addressed below.

1. Pegging 2013 Metrics to 2012 Program Performance

Union has proposed that both 2013 savings metrics – for both T1 and T2/Rate 100 customers – be pegged entirely to the Company's DSM performance with those customers in 2012. Pegging goals to one year of performance results is problematic because, as Table 2 shows, savings per incentive dollar can vary substantially from year to year. That should not be surprising given that these are large customers and that there are relatively few of them, so the effects of outlier projects can be substantial.

Table 2: Union Gas' Historic Savings (Lifetime m^3) per Incentive $

	2009	2010	2011	3-Yr Total
T2/100	190	699	480	452
T1	964	173	185	336

The suggestion that the goals should be pegged to one year is particularly problematic when the Board and other parties do not yet know what the results for that year will be. It could be that 2012 will be a "down year" for reasons that are easily addressed by Union in 2013. In other words, it is possible that the 2012 results will be such that Union could earn a large shareholder incentive without actually demonstrating "exemplary performance", which the Board's 2011 gas DSM guidelines state is the objective of the shareholder incentive mechanism. Put another way, Union could be indirectly rewarded in 2013 if it had a poor performance in 2012.

It would be much better to peg the savings metrics to the average of the 2009 to 2011 results, or at least to the average of the 2010 to 2012 results. Moreover, to demonstrate exemplary performance, the target should be set at 5% above such a three-year average (after any "direct access program design adjustment" discussed below).

Union has argued that pegging the results to 2012 performance is preferable to pegging them to a 3-year rolling average because (1) the 2013 performance metric for other resource acquisition programs was pegged to the 2012 results; and (2) a 3-year rolling

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

Reference: Ex.AIT1/p. 18, lines 8 and 9. The evidence proposes adjustment of natural gas savings targets prospectively based on performance in the prior calendar year.

Given the relatively small number of customers involved in DSM programs for the T1/proposed T2/Rate 100 classes, please comment on the appropriateness of using a 3 year rolling average for prospective adjustment of natural gas savings targets for these rate classes in lieu of the mechanism proposed.

Response:

Union has proposed adjustment of natural gas savings targets prospectively based on the performance in the prior calendar year to maintain consistency with the 2013 and 2014 Resource Acquisition scorecard target and to minimize adjustment factors required in the calculation. The use of a 3 year rolling average would introduce additional complexity into the prospective adjustment of natural gas savings targets. An adjustment would need to be considered to account for the budget transfer limitation between Large Volume Rate Classes for the years prior to 2012. In setting the 2014 Rate T2/Rate 100 Cumulative Natural Gas Savings target, the 30% discount rate would have to be applied to the 2011 and 2012 results. These adjustments are not required in Union's proposal.

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Answer to Interrogatory from
Green Energy Coalition ("GEC")

In Table 4 (which summarizes the Company's scorecard for large industrial customers), the Rate T2/Rate 100 cumulative savings target is expressed as the 2012 "incentive cost-effectiveness (m3 per customer incentive dollar)" multiplied by $2.283 multiplied by 70%.

a) Is this correct? Or should the 2012 performance be multiplied by $2.283 ***million*** (and again by 70%)?

b) The Company has explained conceptually why it believes a discount on savings achieved relative to 2012 is appropriate. However, it has not provided any empirical basis for the precise size of the discount (i.e. 30%) proposed. What is the basis for 30%? Why is it more appropriate than 20% or 10%?

Response:

a) It should be multiplied by $2.283 million.

b) The 30% discount factor for 2013 is an estimate based on a qualitative assessment of Union's market experience, historical performance and factors outlined in Exhibit A, Tab 1, Section 3.1, page 18 and 19. As the Large Volume Plan incorporates a new concept with the Direct Access budget mechanism, there is no empirical evidence for the value of the discount factor.

UNION GAS LIMITED

Answer to Interrogatory from
Green Energy Coalition ("GEC")

On pp. 24-25 the Company describes five different DSM program offerings for large industrials: (1) Customer engagement – communication and education; (2) engineering feasibility and process improvement studies; (3) operation and maintenance practices; (4) new equipment and processes; and (5) energy management.

a) Are these offerings, in aggregate or individual, significantly different from what the company is offering large industrial customers in 2012? If so, how?

b) Are all of the costs associated with the first two offerings – customer engagement and engineering feasibility and process improvement studies – under the 15% of the large industrials budget described as "program promotion"? If not, what parts are included in the customer incentives portion of the budget?

c) Are all of costs associated with the last three offerings – operation and maintenance practices, new equipment and processes, and energy management – under the 59% of the large industrials budget described as customer incentives? If not, what parts are included in the "program promotion" portion of the budget?

Response:

a) No. The offerings presented are a continuation of the 2012 Large Industrial program.

b) No. Program promotion does not include all costs for specific offerings; rather it is the cost to promote the overall Large Volume DSM program. Customer engagement, engineering feasibility and process improvement studies costs are contained under the Program Customer Incentives budget. Please see Exhibit A, Tab 1, Page 12 of 36 for Table 2: 2012 - 2014 Large Volume Rate T1 / Rate T2 / Rate 100 Program Budget.

c) No. The 59% includes only customer incentive costs. Program promotion costs are in addition to this and represent 2% of the costs in Exhibit A, Tab 1, Page 10 of 36, Figure 1. Program promotion is not broken down into costs for specific offerings; rather it is the cost to promote the overall Large Volume DSM program.

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Answer to Interrogatory from
Green Energy Coalition ("GEC")

Table 1 shows the number of DSM projects completed annually from 2008 to 2011.

a) What portion of the projects were studies, what portion were capital projects, and what portion were O&M projects?

b) What portion of the savings came from studies, capital and O&M projects (please show separately for each)?

Response:

a)

	Number of Projects				% Distribution		
Year	Capital	O&M	Study	Total	Capital	O&M	Study
2008	16	31	47	94	17%	33%	50%
2009	29	45	50	124	23%	36%	40%
2010	27	53	51	131	21%	40%	39%
2011	43	157	72	272	16%	58%	26%

b)

Year	Capital Cumulative m^3	O&M Cumulative m^3	Total Cumulative m^3	% Savings Equipment	% Savings O&M	% Savings Studies*
2008	160,236,863	310,665,052	470,901,915	34%	66%	0%
2009	507,085,757	177,691,466	684,777,223	74%	26%	0%
2010	607,512,366	374,423,911	981,936,277	62%	38%	0%
2011	343,434,865	1,135,407,505	1,480,322,692	23%	77%	0%

*Studies are completed to identify potential savings and support the completion of O&M and capital projects. Studies themselves do not generate savings.

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Answer to Interrogatory from
TransCanada Energy Ltd. ("TCE")

Reference: a) Exhibit A, Tab 1, Page 29, Lines 3 to 5

Preamble: *"By April 1st, customers are required to submit an Energy-Efficiency Plan, authored with the assistance of Union Gas' energy experts. An incentive will be provide to the customer once their Energy-Efficiency Plan has be confirmed by Union Gas."* (Emphasis Added)

a) Please explain the nature of the incentive referred to at Line 4 of the reference.

b) Please provide the amount of the incentive provided if it is a monetary incentive.

c) According to your answer in b) above, please explain how the amount of the incentive is determined.

d) Please detail the criteria that Union will use in order to "confirm" the submitted Energy-Efficiency Plan.

Response:

a) The Energy-Efficiency Plan incentive is to promote the initial identification and scoping of potential energy saving projects at each Direct Access customer's site. The incentive is to assist the customer with the time and resources required for the plan, and to promote the importance of customer participation to receive benefits from Union's DSM program.

b) Based on the Large Volume DSM Plan proposed, the monetary incentive would be in the range of 5% to 10% of a customer's direct access incentive budget.

c) The incentive percentage was determined based on Union's experience delivering planning and awareness initiatives. The range outlined in Exhibit B4.4b) is sufficient to drive attention to complete the Energy Efficiency Plan with adequate budget remaining to support the completion of projects which drive m3 savings and studies.

d) The Energy-Efficiency Plan will be completed with Union Gas' technical and account resources. Confirmation will take place once the customer and Union Gas have identified potential avenues for incentive funding support and associated implementation timing.

UNION GAS LIMITED

Answer to Interrogatory from
Green Energy Coalition ("GEC")

For each of 2009, 2010, 2011 and 2012 (year to date), please provide the following for each group of customers who would be in the new Rate 1, the new Rate 2 and Rate 100 (please provide separately for each of the three groups/classes):

a) The number of customers that had at least one DSM project.
b) The percentage of customers that had at least one DSM project
c) The weighted average percentage (weighted by annual gas consumption) of customers that had a DSM project
d) Total incentive spending
e) Total "promotion costs" (if promotion costs were allocated, please provide the allocated amounts and explain how the allocations were made)
f) Total DSM spending (please explain any components other than incentives and promotion costs)

g) Total annual (i.e. first year) gas savings
h) Cumulative (i.e. lifetime) gas savings

Response:

The proposal to create Rate T2 has not yet been approved by the Board and if approved will be effective January 1, 2013. Any split for Rate T1 and Rate T2 for the years 2009-2012 are provided for illustrative purposes only.

a)
The number of customers that had at least one DSM project is provided in the table below.

Rate Class	2009	2010	2011	2012 YTD
Rate T1	20	21	23	10
Rate T2	7	12	12	8
Rate 100	9	14	13	6
Total	36	47	48	24

b) The percentage of customers that had at least one DSM project is provided in the table below

Rate Class	2009	2010	2011	2012 YTD
Rate T1	51%	54%	59%	26%
Rate T2	35%	60%	60%	40%
Rate 100	50%	78%	72%	33%

3. TARGETS

The metrics in the Large Volume scorecard include two cumulative natural gas savings metrics, and a Rate T2/Rate 100 Percent of Customer Incentive Budget Spent metric. The 2013 and 2014 Rate T1/Rate T2/ Rate 100 scorecards are displayed in Table 4 below.

Maximizing cost-effective m^3 savings is one of the guiding principles set out by the Board in the DSM Guidelines. In recognition of the importance of driving natural gas savings, Union has included cumulative m^3 targets in its 2013 and 2014 scorecards. This metric was also included in the Board approved 2012 scorecard. For 2013 – 2014, Union has proposed two cumulative natural gas savings metrics, one for Rate T2/Rate 100 customers who will have direct access to their dedicated customer incentive budget, and one for Rate T1 customers who will have access to an aggregated pool of customer incentive funding. Union has separated these two metrics in recognition of the increased customer incentive flexibility introduced in the Direct Access budget mechanism for Rate T2/Rate 100 customers and the additional budget limitation for these rate classes introduced through the elimination of the 15% overspend. These changes required Union to set the target levels for these customers differently than for Rate T1 customers.

To ensure Union balances the goal of maximizing gas savings with generating broad customer participation amongst its largest volume gas users, Union has introduced a Rate T2/Rate 100 Percentage of Customer Incentive Budget Spent metric. This metric will incent Union to drive participation from each customer, maximizing individual customer value.

While Union has ensured the scorecard balances the overall weighting between Rate T2/Rate 100 and Rate T1 customers at 40% versus 60%, Union has placed lower weighting on the cumulative natural gas savings metric for Rate T2/Rate 100 customers relative to Rate T1 customers. This is in recognition of the lack of historical information upon which to base the Rate T2/Rate 100 cost-effectiveness. Union has placed equal weighting on each of the two Rate T2/Rate 100 metrics as Union feels it is equally important to ensure natural gas savings as well

4. Addition of Metric on Customer DSM Budget Spending

Union's proposed additional metric on customer DSM spending is problematic. Union's rationale for proposing the metric is that it "ensures Union balances the objectives of maximizing natural gas savings with maximizing individual customer value and participation in the program."[39] However, the very design of Union's program should ensure that second objective – maximizing individual customer value and participation – is addressed. Moreover, perhaps the most important element of customer value will be the identification and acquisition of cost-effective energy savings. Put simply, this additional metric appears to serve Union's interest in mitigating its risk of earning shareholder incentives than it serves ratepayers' interest.

5. Allocation of Weights between T1 and T2/Rate 100

The Board's 2011 gas DSM guidelines provide relatively clear direction with respect to allocation of shareholder incentives. As the following excerpts make clear, at every turn, the guidelines suggest that the allocations should be based on budget levels:

> *"To the extent that the approved DSM budgets deviate in magnitude from the Board proposed budgets, the Annual Cap should be scaled accordingly."*[40]
>
> *"The Annual (Shareholder Incentive) Cap should be allocated among the three generic program types…based on their approved DSM budget shares."*[41]
>
> *"Likewise, incentive amounts paid to the natural gas utilities should be allocated to rate classes in proportion of the amount actually spent on each rate class."*[42]

That guidance has generally been closely followed in all other aspects of Union's and Enbridge's DSM shareholder incentive mechanisms.

Union's proposal to allocate 60% of the weight of its shareholder incentive metrics to performance with T1 customers violates this basic tenet because the Company is proposing to allocate only 32% of the Large Volume Customer budget to T1 customers. Moreover, historic performance data suggest that the T1 customers will not produce an appreciably greater savings per incentive dollar will be produced by the other two rate classes included in Union's Large Volume Customer proposal.[43]

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[39] Exh B1.3.
[40] Demand –Side Management Guidelines for Natural Gas Utilities, EB-2008-0346, June 30, 2011, p. 31.
[41] Demand –Side Management Guidelines for Natural Gas Utilities, EB-2008-0346, June 30, 2011, p. 31.
[42] Demand –Side Management Guidelines for Natural Gas Utilities, EB-2008-0346, June 30, 2011, p. 31.
[43] The three year average (2009 through 2011) savings per incentive dollar for T1 customers is 74% of the weighted average for T2/Rate 100. The 2012 year-to-date figure is 68% (based on analysis of data provided in Exh. B2.5). Thus, even if one accepts the 30% savings reduction proposed by Union for its T2/Rate 100 metric, the savings per incentive dollar will be comparable between the two groups. That, in

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The rationale that Union has offered for this unbalanced approach to weighting its metrics is that "there is a lack of historical information upon which to base the Rate T2/Rate 100 cost-effectiveness."[44] It is unclear why cost-effectiveness should be a criterion for weighting of performance metrics. If by cost-effectiveness Union means savings per incentive budget dollar then, as noted above, its own historic data suggest that the returns for T2/Rate 100 would be comparable even after adjusting them down 30% as Union has proposed.

In short, the weight allocated to the T1 metric should be 32% rather than 60%, with the balance allocated to T2/Rate 100 metrics.

6. Pegging 2014 Metric to 2013 Program Performance

As discussed above, pegging a performance metric to just one year's worth of program experience is problematic, particularly for a small group of large customers. The variation from year to year is too substantial. Thus, it would be much more appropriate to peg the 2014 performance metric to the average of the three previous years. Moreover, to demonstrate "exemplary performance", the metric should be 5% higher than the average of the three previous years.

IV. Recommendations

Based on the analysis outlined above, I recommend that the Board do the following:

1. Policy on Large Volume Customer DSM

A. Require the continued offering of DSM programs to large volume customers
B. Accept a self direct approach for T2/Rate 100 customers only if it can be expected to generate as much savings as current program designs. The adoption of a savings target that is based on Union's previous years of DSM experience with large volume customers, without any downward adjustment, would be a reasonable proxy for such an expectation.

2. Specifics of Union's Program Proposal

C. If a self direct approach is approved, require that the program budgets cover the entire two year period addressed in this filing (2013 and 2014) so that customers can have the flexibility to use two years' worth or budget at one time and can choose the best

turn, suggests that the distribution of total savings will not be much different than the distribution of total budget.
[44] Exh A, Tab 1, p. 15.

UNION GAS LIMITED

Answer to Interrogatory from
Association of Power Producers of Ontario ("APPrO")

Reference: Exhibit A, Tab 1, Section 1.2, pages 9 – 12

Preamble: Union indicates that:

> *"59% of the DSM amount in rates is budgeted for customer incentives and 15% for program technical resources. This 74% of the total DSM amount allocated to Large Volume rate classes directly supports the identification, analysis and implementation of energy-efficiency projects."*

APPrO would better understand these percentages.

a) Please confirm that based on the above noted percentages, the balance of the costs of the DSM programs or 26% of the DSM budget goes to administration and overheads or other costs not directly related to implementation of energy efficiency projects.

b) Please confirm that these percentages exclude the Union incentive payments that would be paid for by customers in the event that Union met the necessary scorecard targets.

c) Union indicates that the 15% of the budget ($6.209 m3) or $931,000 is for Technical Resources and is directly involved in energy-efficiency projects. Table 2 indicates that the Technical Resources budget is $907,000 and adjusted for inflation for 2012 and 2013 (2.87% and 2.25% respectively) suggests that the Technical Resource budget is $954,000. Please confirm that 97.5% of the Technical Resources are directly involved in energy implementation projects and only 2.5% is involved in administration, program evaluation, program promotion supervision or other activities that are not directly involved implementation of energy-efficiency programs. If not confirmed, please indicate what percentage of the technical resources are related to administration, program evaluation, program promotion or other activities not directly related to implementation of energy-efficiency programs.

d) Please recalculate the percentage of the 'DSM amount' that is directly allocated to supporting energy-efficiency projects if the incentive payments are included in the calculation assuming 100% payout.

Response:

a) Confirmed. The 26% of the DSM budget goes to costs which directly support the program, such as program promotion and evaluation, as well as portfolio-level costs such as research, evaluation and audit activities to meet regulatory requirements. It also includes an allocation of the low-income DSM budget.

b) Confirmed.

c) Not confirmed. The percentage in Figure 1 for Technical Resources rounded to two decimal places is 15.36%. The 2.5% discrepancy noted in the question is due solely to this rounding.

- 15.36% of the total DSM budget ($6.207 million) = $0.953 million
- $0.907 million adjusted for 2012 and 2013 inflation (2.87% and 2.22% respectively) = $0.953 million

Within the Technical Resources budget 11.1% is related to sales and marketing support and administration. In 2013 this is $0.106 million.

d) If the 100% DSM Utility Incentive is included in the calculation 67% of the DSM amount is directly allocated to supporting energy-efficiency projects.

Question No.		No. of Responses		Percentage of Responses	
		Yes	No	Yes	No
4	Has your firm received technical or financial assistance through a Demand Side Management program offered by Union Gas (or your gas supplier)?	7	8	47%	53%
5	Has your firm received technical or financial assistance from a Conservation and Demand Management program offered by the OPA or your electric utility?	1	13	7%	93%
6	If incentives from Union Gas were used to contribute to project costs, please indicate whether this investment would have been made within three years if these incentives had not been available	8	5	62%	38%
7	Does your firm track energy savings achieved through the program?[1]	3	12	20%	80%
8	Do you use a third party to verify the level of energy savings achieved by energy management projects?	2	13	13%	87%
10	Does your firm plan to invest in energy management in the coming 3 years? (For yes responses, see below)	10	5	67%	33%

1. (b) Please see table presented in response to Environmental Defence IR #1 above.

1. (c) Navigant sent the survey to all APPrO members whose facilities use natural gas.

As indicated in the introduction to the survey form, responses were provided on the condition that they "be protected as confidential" unless as authorized in question 9. For the purposes of obtaining honest, untainted data, Navigant never discloses personal or confidential commercial information submitted by survey respondents without their consent. Information is collected on the premise that only aggregated information will be published and any/all personal confidential commercial information will remain confidential. This is standard industry protocol when conducting market research – requiring Navigant to disclose such information would impede its ability to obtain the data it requires to prepare useful results.

When conducting market research in Canada, Navigant subscribes to "*The Marketing Research and Intelligence Association Privacy Code*" published by the Marketing Research and Intelligence Association (MRIA). The MRIA is a Canadian not-for-profit association representing all aspects of the market intelligence and survey research industry, including social research, competitive intelligence, data mining,

[1] If individuals answered "Yes" to this question, they were asked to indicate the level of annual energy savings achieved over the past 3 years. No respondent answered this part of the question.

Extract from D6.1 – attachment:

Industrial Customers Do Efficiency Better

The first assumption on which opt-out and self-direct programs are based is that industrial companies are better at capturing cost-effective energy efficiency than CRM-funded programs. This assumption also includes the inherent belief that CRM-funded programs are not capable of serving the industrial sector well. In many states, evidence suggests otherwise. ACEEE has studied industrial energy efficiency programs for years, and has, over the years, consistently identified industrial energy efficiency programs that are tremendously effective at capturing energy efficiency from their customers (see Chittum et al. 2009, York et al. 2008). Though it is clear that some CRM-funded programs are not as effective as others, examples of CRM-funded programs serving their industrial sectors well are easily found.

In fact, self-direct programs themselves tend to refute this assertion. In Wisconsin, where industrial energy efficiency programs have historically been quite strong, no single customer has chosen to take advantage of the self-direct program. Wisconsin's policy-makers and administrators of the CRM-funded programming attribute the lack of interest in the self-direct option to industrial companies' perceptions that Wisconsin's Focus on Energy programs serve them well and provide benefits equal to or greater than their individual CRM fees (Schepp 2011, Schutt 2011). In Oregon, companies have increasingly stopped using the self-direct program and instead chose to pay into the CRM-funded programming offered through the Energy Trust of Oregon. Customers have noted that they made the switch to take advantage of the Energy Trust's incentives and technical assistance. This has been especially true as the Energy Trust has developed more industrial-focused offerings (Crossman 2011, Stipe 2011).

Industrial Companies Will Maximize Cost-Effective Efficiency

Another assumption frequently made during the development of opt-out and self-direct programs is that industrial customers will always do all cost-effective energy efficiency because doing so makes good business sense. This claim is typically followed by the assertion that the CRM fee is a "penalty" (Chittum and Elliott 2009, Schwartz 2011, Crossman 2011, Lazar 2010). While industrial firms in the U.S. have continued to become more energy efficient per unit of product output, they have not necessarily captured all cost-effective energy efficiency. Again, opt-out and self-direct programs have proven this to be true. In Utah, Wyoming and Oregon, customers can opt out of all or part of their CRM fees if they can prove that they have in fact done all cost-effective energy efficiency. In the case of Utah and Wyoming, "cost-effective" means that a project has a simple payback of eight years or less; in Oregon it is ten years. To date, no company has taken advantage of these exemptions in any of these states, because there are always some cost-effective projects that could be identified during an energy audit (Helmers 2011, Stipe 2011).

Lack of Data and Evaluation

Measuring and evaluating the true costs and benefits of energy efficiency programs and projects is critical to maximizing efficiency's public benefits. Conducting data collection and analysis ensures money is not wasted that could otherwise be used to acquire efficiency. Customers of all classes paying a CRM fee to support system-wide energy efficiency want to know that their dollars are not being wasted. Similarly, when customer rates increase because a new power plant is built, customers want to know that the power plant is running as effectively as possible. Performance data must be collected to know this.

Opt-out programs collect little to no data, and self-direct programs often do a poor job of collecting and analyzing data. This is due largely to the structure of self-direct programs, which generally allow for few if any dedicated staff and few additional resources. Most but not all self-direct programs retain a percentage of a customer's CRM fee to cover program administrative costs, though the amount retained can be quite small and insufficient to pay for all desired program administrative activities. These collections range from about 5% to 20% of a customer's CRM fee. Self-direct programs are also often challenged by competitive concerns of participating customers who may not wish to share

Evidence of Sean Russell

INTERROGATORY #29

Does LDE utilize maximum payback period, hurdle rate or other economic test to analyse energy efficiency investment choices? If so please provide.

RESPONSE

Please see response to Environmental Defence IR #5, at exhibit D1.

Interrogatories for Sean Russell (Commercial Manager/Interim Plant Manager of London District Energy Inc., subsidiary of Veresen Inc.)

INTERROGATORY #5

Has Veresen pursued all of its energy savings opportunities with a TRC benefit/cost ratio of 1.0 or better? If "no", please explain why not.

RESPONSE

Energy efficiency programs are pursued on an ongoing and planned basis, taking into account various investment criteria which depend on the nature and scope of the specific energy efficiency initiative. Project benefit-to-cost ratios will change over time as equipment ages and requires further maintenance, with the input costs of fuel and with the price of electricity. This systematic pursuit of energy efficiency is part of LDE's regular business planning because it makes good business sense. Plant management is in the best position to determine which projects are economic and which ones are not. The economic tests applied to the various energy efficiency initiatives will be the same whether or not an opt-out program is approved by the Board.

LDE has included DSM funding in the past as a benefit in the overall economics of energy efficiency projects. This makes sense once the Board has approved a DSM program and the rates are set based on recovery of these DSM costs. At this point in time, the DSM program for 2013 and 2014 has not been approved, nor are the rates approved to recover such DSM costs. An appropriate economic analysis at this time should not only reflect the DSM funding that might be received to support an energy efficiency initiative, but should also reflect the real costs of providing the DSM program. These real costs of providing the DSM program are paid for by the rate payer and are a combination of both the higher distribution rates that result from recovery of the DSM program costs as well as the one-time costs charged to rate payers by Union related to the clearing of the DSM variance accounts at the end of the year. The variance accounts include variances in actual DSM spending as well as Union incentive payments.

It is worth noting that, at Exhibit B5.7, APPrO requested certain information and received the following response:

> Question:
>
> d) Please recalculate the percentage of the 'DSM amount' that is directly allocated to supporting energy-efficiency projects if the incentive payments are included in the calculation assuming 100% payout,
>
> Answer:
>
> d) If the 100% DSM Utility Incentive is included in the calculation 67% of the DSM amount is directly allocated to supporting energy-efficiency projects.

INTERROGATORY #33

Does LDE agree that there can be gas system benefits beyond those accruing to the participant due to DSM?

RESPONSE

LDE is not aware that Union will reduce any contract quantities as a result of implementation of energy efficiency measures. To the extent that there are "system benefits", these benefits accrue to the system at LDE's expense. LDE has, of its own volition, funded significant energy efficiency measures. Consequently, LDE does not expect to see any additional "system benefits" under an opt-out program.

INTERROGATORY #34

Does LDE agree that lowering gas demand can reduce commodity or transportation costs due to a shift in the demand versus supply balance?

RESPONSE

LDE is already funding significant energy efficiency measures at its own expense and will continue to do so, regardless of Union's DSM program. LDE does not expect to see any additional reduction in demand versus supply under an opt-out program.

INTERROGATORY #2

Ref: Navigant Consulting, *DSM Funding Options for Large Natural Gas Customers*, page 18

If the Ontario Energy Board ("OEB") were to permit the "opting out" option, do you believe that the expected magnitude of natural gas savings (cubic metres) would rise, fall or stay the same for the customers that opted out? Please fully justify your response.

RESPONSE

Navigant does not have sufficient information from the survey to respond to this question.

INTERROGATORY #21

In question #6 in this survey, Navigant asked whether efficiency investments made by customers would have been made within three years if Union Gas incentives were not provided.

(a) Why did Navigant ask only about financial incentives and not about technical assistance and /or other forms of support?

(b) Navigant conducts many DSM evaluations across North America, including studies to assess free ridership, spillover and net-to-gross ratios for large, custom C&I programs. When it conducts such studies, how many different questions related to free ridership, spillover and/or net-to-gross ratios would it typically ask customers?

(c) Would Navigant agree that because it asked only one question about only financial incentives, one could not draw conclusions about free ridership associated with the Union program from its survey results? If not, why not?

(d) Would Navigant agree that none of the questions it asked in this survey shed any light on potential for spillover effects? If not, why not?

RESPONSE

21. (a) Question 4 in the survey asked whether the firm "received technical or financial assistance" from the company's gas supplier and Question 5 asked whether the firm "received technical or financial assistance" from the OPA or an electrical distributor.

21. (b) The questions asked in the survey discussed in Section 3 of the report were not intended to quantify levels of free-ridership, spillover or net-to-gross ratios, as that was not the purpose of the survey. The number and type of questions that would be asked in a study to determine such issues would depend on program type and design.

21. (c) Please see response to GEC IR #21(b) above.

21 (d) The questions asked in the survey discussed in Section 3 of the report were not intended to ask about spillover effects. We therefore agree that they would not shed light any light on potential for spillover effects.

INTERROGATORY #4

What steps did Navigant take to ensure that there was no bias introduced into its survey results due to a tendency for APPRO members who most want change to participate in the survey?

RESPONSE

As indicated, all APPrO gas-fired generator members were invited to participate and follow-ups with non-respondents were conducted in an effort to maximize response rate. Based on Navigant experience, a response rate of 63% on this type of survey is very high. Navigant does not have any information about whether those APPrO members who "most want change" were more likely to respond.

INTERROGATORY #7

At page 2 Navigant reports that 86% of members surveyed have an existing energy management program in place, yet at page 8 Navigant indicates that it received responses from only 12 of 19 companies it approached (63%). Please reconcile these statements.

RESPONSE

As stated in paragraph 6 of section 3: "Eighty-six percent of respondents indicated that they had an existing energy management program in place." The statement on page 2 was in reference to respondents to the survey.

INTERROGATORY #12

On p. 2, Navigant states that "One of the considerations in the Minnesota Public Utilities Commission's decision to exclude generators from paying the DSM CRM was that this would effectively result in electricity consumers paying these costs twice…"

(a) Does Navigant agree with this conclusion?

(b) What is the basis for this statement?

(c) What were the other reasons or considerations?

(d) To the extent that a gas generator's cost of producing electricity is sufficiently lower than the marginal cost of production that sets wholesale market prices for electricity, isn't it true that the extra cost on the generators that is imposed by a gas DSM CRM would not have any effect on electricity consumers? For example, if the wholesale market clearing price of electricity was $0.050/kWh and a generator could sell electricity on the wholesale market for $0.040/kWh without paying a gas DSM CRM or $0.041/kWh while paying a gas DSM CRM, wouldn't the imposition of a gas DSM CRM have no impact on electricity consumers?

(e) To the extent that the savings from a gas DSM offering to generators were worth more in net present value terms than the cost of the measures (including both the DSM program cost recovered through a DSM CRM and the generators' own contribution to the cost of the measures), would Navigant agree that electricity consumers would not pay a second "cost"?

(f) Please provide a copy of the Minnesota decision that documents the reasons for excluding generators from paying the DSM CRM.

RESPONSE

12. (a) Navigant's objective in this study was not to review or critique the decisions of the regulators interviewed as part of this review, but rather to identify and report on how a number of neighbouring jurisdictions treat the costs of DSM programs with respect to large industrial customers.

12. (b) The statement is based on a telephone interview with staff at the Minnesota Public Utilities Commission.

12. (c) Navigant has no additional information on other reasons or considerations made by the Minnesota PUC. Please see response to GEC IR #12(b) above.

12. (d) Navigant did not conduct an analysis of how the cost of DSM programs would be reflected in market prices. Whether the costs associated with a DSM CRM would affect the marginal cost of production would depend on a range of factors, however, we note that natural gas generators determine

the marginal price of electricity (Hourly Ontario Energy Price or HOEP) in the Ontario market for many hours of the year.

12. (e) Whether electricity consumers would not pay a second "cost" would depend on many factors including the generator's investment recovery mechanisms and whether the savings realized by the gas generator affected their variable cost of production (and hence their supply bids into the electricity market).

12. (f) Please see response to GEC IR #12(b) above.

INTERROGATORY #27

Has Navigant compared the level of energy efficiency among large industrial customers, and in particular among gas power generators, in jurisdictions where opt out is allowed or no CRM occurs versus in jurisdictions with DSM programs that cover that customer segment? If so, please provide all results.

RESPONSE

No. This was not part of the scope of this study.