

August 6, 2009

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

Dear Ms. Walli:

Re: EB-2009-0166 – Union's 2010 DSM Plan

Please find enclosed two copies of Union's responses to 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-2009-0166 Intervenors

UNION GAS LIMITED

Answer to Interrogatory from
Board Staff

Please identify any deviations in Union's 2010 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 2010 DSM plan is based on the existing DSM framework established in EB-2006-0021. Union has not deviated from the existing framework, with the exception of the reduction of budgets and targets for Low Income programs. All DSM costs and incentives related to Low Income programs were removed from the 2010 DSM plan based on the Board's direction in EB-2008-0346. Low Income DSM programs will be addressed separately under the LEAP Conservation Working Group.

The budget for Union's 2010 DSM plan was calculated by multiplying the 2009 budget by 10% (less costs for Low Income programs). The 2010 budget was proportionally allocated to rate classes based on the Board approved allocations in EB-2005-0520.

The 2010 Total Resource Cost ("TRC") target will be calculated following the Board approved methodology in EB-2006-0021. The 2010 target will be calculated using the actual audited net TRC for 2007, 2008 and 2009 (less the actual TRC values attributable to Low Income programming for each year), divided by 3 and increased by 15%.

The Shared Savings Mechanism ("SSM") cap will be calculated by increasing the 2009 SSM cap by the Ontario CPI, as determined in October, 2009.

The 2010 DSM programs, including the market transformation program, are consistent with those used under the current DSM framework. Union will offer the drain water heat recovery ("DWHR") program for market transformation. The use of a scorecard to measure results and calculate the incentive for market transformation programs was approved in EB-2006-0021. The 2010 scorecard contains metrics similar to those used for the market transformation scorecards in 2007, 2008 and 2009.

In 2010, Union will continue to focus on DSM research to improve the overall program design.

UNION GAS LIMITED

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

Ref.: 2010 DSM Plan, page 2 of 43

Union states that it has consistently delivered cost-effective DSM programs, and over the past 11 years has delivered approximately 614M cubic metres of natural gas savings and Total Resource Cost ("TRC") benefits of over \$1 B. Union then goes on to set out its budget, TRC target, Shared Savings Mechanism ("SSM"), Lost Revenue Adjustment Mechanism ("LRAM") and DSM Variance Account ("DSMVA"). CME wishes to better understand the historic development of these components of Union's DSM Plan. To assist in this matter, please prepare a table that sets out for each of the years 2006 to 2009, the following information:

- a) The DSM budget;
- b) The actual DSM expenditures;
- c) The TRC target;
- d) The m3 of natural gas savings achieved;
- e) The TRC net benefits achieved;
- f) The SSM incentive payment;
- g) The LRAM payment; and
- h) The variance recorded in the DSMVA.

Response:

Please see Attachment.

Historic Results for Components of Union's DSM Plan

	2006	2007	2008	2009
(a) DSM Budget ⁽¹⁾ (000's)	\$13,900	\$17,000	\$18,700	\$20,570
(b) Actual DSM Expenditure (000's)	\$12,900	\$16,140	\$20,259	-
(c) TRC Target (100%) (000's)	\$217,000	\$188,000	\$180,100	\$220,100
(d) SSM Savings (Audited) 10 ³ m ³	86.4	89.6	73.2	-
(e) TRC Net Benefits Achieved (Audited) (000's)	\$184,700	\$215,900	\$262,700	-
(f) SSM Incentive Payment (Audited) (000's)	\$2,700	\$6,233	\$8,696	-
(g) LRAM Revenue Impact (Audited) (000's)	\$1,355	\$767	\$711	-
(h) DSMVA (Audited) (000's)	(\$1,000)	(\$860)	\$1,559	-

⁽¹⁾ includes Low Income and Market Transformation.

UNION GAS LIMITED

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

Ref.: 2010 DSM Plan, page 4 of 43

Union states that a detailed breakdown of its 2010 DSM Plan Budget by market segment is not possible at this time. In order to permit CME to better understand the potential impact which the 2010 DSM Plan Budget will have on its members, please:

- a) Provide a summary of how Union's DSM costs are allocated to each rate class;
- b) Provide Union's best estimate of the breakdown of its 2010 DSM Plan Budget by market segment and by rate class. If it is not possible to provide such an estimate, please explain why.

Response:

- a) Union's DSM budget process was approved in EB-2006-0021. Following a base year allocation for 2007, Union's annual DSM budget has been determined by applying a 10% increase to the approved DSM budget to each rate class from the previous year.

Union tracks the variance between the DSM budget and the actual DSM dollars spent for each rate class. The variance, by rate class, is disposed of annually through Union's deferral disposition application.

- b) Please see Attachment for the 2010 DSM budget by rate class. A breakdown by market segment is not currently available as the marketing planning process for 2010 has not been completed. A breakdown by market segment will not be available until Q4 2009.

Union's 2010 DSM Budget
Allocation by Rate Class (\$000's)

	<u>DSM Costs in 2009 Rates</u>	<u>Annual Rate Class Increase of 10%</u>	<u>Low Income Adjustment</u>	<u>Proposed 2010 DSM Budget</u>
Rate 01	1,967	197	(199)	1,965
Rate 10	1,696	170		1,866
Rate 20	1,221	122		1,343
Rate 100	1,963	196		2,159
Rate M1	6,554	655	(1,531)	5,678
Rate M2	2,716	272		2,988
Rate M4	2,226	223		2,449
Rate M5	-	-		-
Rate M7	846	85		931
Rate T1	1,381	138		1,519
Rate T3	-	-		-
Total	<u>20,570</u>	<u>2,057</u>	<u>(1,730)</u>	<u>20,897</u>

UNION GAS LIMITED

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

Ref.: 2010 DSM Plan, page 4 of 43

Union states that the percentage spent per market segment for 2010 will not vary materially from 2007 and 2008. Please reproduce Table 1 entitled "2010 DSM Plan Budget", to include the actual amounts spent and the percentage spent for 2006 to 2009.

Response:

Please see Attachment. 2009 actual amounts spent will not be available until year end.

Filed: 2009-08-06

EB-2009-0166

Exhibit B2.3

Attachment

Actual and Planned Budget and Percentage Spent for 2006 - 2008

	Year					
	2006		2007		2008	
	Actual					
	(\$000)	%	(\$000)	%	(\$000)	%
Program Allocation						
Residential	3,163	25%	3,322	21%	4,489	22%
Commercial	3,090	24%	3,256	20%	4,332	21%
Distribution Contract	3,500	27%	2,539	16%	3,869	19%
Market Transformation	-	-	770	5%	1,097	5%
Programs Sub-total	9,753	76%	9,887	61%	13,787	68%
Research	291	2%	597	4%	1,025	5%
Evaluation	156	1%	322	2%	553	3%
Administration	-	-	142	1%	144	1%
Salaries and Overhead	2,682	21%	5,184	32%	4,750	23%
Total	\$12,882	100%	\$16,132	100%	\$20,259	100%

UNION GAS LIMITED

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

Ref.: 2010 DSM Plan, page 4 of 43

Please prepare a table which shows for the years 2006 to 2009 the cost allocation by rate class of Union's annual DSM budgets.

Response:

Union's Approved DSM Budget: 2006-2009
Cost Allocation by Rate Class (\$000's)

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Rate 01	2,433	1,626	1,788	1,967
Rate 10	563	1,402	1,542	1,696
Rate 20	535	1,009	1,110	1,221
Rate 100	535	1,622	1,785	1,963
Rate M1		5,417	5,958	6,554
Rate M2	7,694	2,244	2,469	2,716
Rate M4	535	1,840	2,024	2,226
Rate M5	535	-	-	-
Rate M7	535	699	769	846
Rate T1	535	1,142	1,256	1,381
Rate T3	-	-	-	-
Total	<u>13,900</u>	<u>17,001</u>	<u>18,701</u>	<u>20,570</u>

UNION GAS LIMITED

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

Ref.: 2010 DSM Plan, page 5 of 43

Union states in the 2010 DSM Plan, Union will be eligible to earn a SSM incentive payment, which will be set by a formula, and at 100% of TRC target will be \$4.75M. Union further states that in 2010, the SSM incentive cap of \$8.5M will increase by the Ontario CPI as determined in October 2009. In order to permit CME to better understand the potential impact that the SSM may have on ratepayers, please:

- a) Provide the maximum amount for the SSM incentive cap in fiscal 2009 (as determined by the Ontario CPI in October 2008);
- b) Confirm that the amount of the 2009 maximum SSM incentive cap will be increased by the Ontario CPI as determined in October 2009, and not the annual SSM incentive cap of \$8.5M set out in Union's evidence.

Response:

- a) The maximum amount for the SSM incentive cap in 2009 is \$8,921,583.
- b) Confirmed.

UNION GAS LIMITED

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

Ref.: 2010 DSM Plan, page 5 of 43

CME wishes to better understand the impact which Union's SSM payouts have on particular rate classes. For the years 2006 to 2009, please provide a table that sets out the allocation of the annual SSM payments by rate class.

Response:

Please see Attachment. The 2009 SSM balance will not be available until March 2010 when Union files the 2009 deferral account disposition application.

The SSM deferral balances are allocated to rate classes in proportion to the net TRC benefits attributable to the respective rate classes.

UNION GAS LIMITED
Allocation of SSM payments (\$000's) by rate class

	<u>Approved 2006 (1)</u>	<u>Approved 2007 (2)</u>	<u>Proposed 2008 (3)</u>
Rate 01	258	338	457
Rate 10	54	534	283
Rate 20	61	77	116
Rate 100	337	709	2,642
Rate M1 (4)			1,923
Rate M2 (4)	1,150	2,737	666
Rate M4	176	478	238
Rate M5	285	41	383
Rate M7	69	531	(52)
Rate T1	643	1,464	1,287
Rate T3	-	-	-
Total	<u><u>3,033</u></u>	<u><u>6,909</u></u>	<u><u>7,943</u></u>

Notes:

- (1) 2006 SSM balance approved for disposition in EB-2007-0598.
- (2) 2007 SSM balance approved for disposition in EB-2008-0034.
- (3) 2008 SSM balance proposed for disposition in EB-2009-0052.
- (4) Balance allocated to former Rate M2 class for 2006 and 2007.
In 2008 the SSM amounts were tracked to new Rate M1 and Rate M2 respectively.

UNION GAS LIMITED

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

Ref.: 2010 DSM Plan, section 2.3

Union describes the evaluation and audit process. CME wishes to better understand the impact which the evaluation and audit process had on the SSM and LRAM. Please provide a table that sets out for the years 2006 to 2009 the pre-audit and post-audit amounts claimed by Union for TRC, SSM and LRAM.

Response:

Historical Amounts claimed for TRC, SSM and LRAM (\$000's)

	Year					
	2006		2007		2008	
	Pre-audit	Post-audit	Pre-audit	Post-audit	Pre-audit	Post-audit
TRC	\$186,121	\$184,677	\$229,175	\$215,896	\$252,013	\$262,754
SSM	\$2,898	\$2,719	\$6,941	\$6,234	\$8,696	\$8,696
LRAM	\$1,421	\$1,355	\$1,361	\$767	\$861	\$711

Pre-audit and post-audit results for 2009 are not available at this time.

UNION GAS LIMITED

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

Ref.: Page 12 of 43

Regarding reference to individually-metered multi-family housing on page 12 of 43, which prescriptive showerhead savings value is used for such housing units – the residential assumption or the multi-family assumption?

Response:

Union utilizes different delivery methods to distribute showerheads in its franchise area. The savings value is dependent on the delivery method used by the participant. If the customer obtained an Energy Savings Kit ("ESK"), the savings are calculated using the residential ESK showerhead input assumptions. If the showerhead was distributed through the commercial hot water conservation ("HWC") program, the savings are calculated using the multi-family showerhead input assumptions. The HWC program was developed to target multi-family buildings.

UNION GAS LIMITED

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

Ref.: Page 14 of 43

Regarding ESKs and thermostats discussed on page 14, does Union track whether, over the course of several years, customers have received more than one ESK or thermostat? If so, does it not count savings from all deliveries after the first one? If not why not?

Response:

Union tracks all ESK's and thermostats that are received by customers. Where a duplicate thermostat or ESK is encountered at one address, it is not counted toward the achievement of the TRC target.

UNION GAS LIMITED

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

Ref.: Page 14 of 43

Also regarding ESKs and thermostats, how many Union unique customers have received such products to date? If the number is not the same because some addresses have received more than one, how many kits and thermostats have been distributed?

Response:

For the period January 1 – June 30 2009, 13,175 unique Union customers, by address, have received an ESK which have been tracked, and 7,799 unique programmable thermostats have been tracked (excluding those provided through the Low Income program). These tracked measures will contribute towards Union's TRC results for 2009. An additional 1,204 ESKs were distributed but did not qualify as program participants for tracking purposes, including the case where an address has previously received an ESK. Programmable thermostat rebates are not paid if the applicant does not qualify as a program participant for tracking purposes. All measures which are not tracked will not contribute to Union's TRC results.

UNION GAS LIMITED

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

Ref.: Page 19 of 43

Regarding multi-family conservation measures discussed on p. 19, what does Union do to verify that the measures have actually been installed?

Response:

Upon installation the building superintendent or property manager completes a tracking sheet and forwards it to Union's commercial account managers. The account managers or administrative staff verify the installation of the measures through site visits or phone calls.

UNION GAS LIMITED

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

Ref.: Page 27 of 43

Regarding the discussion of Drain Water Heat Recovery (DWHR): Market Effects on p. 27, please provide all information available to the company on the changes in the percentage of housing starts that install DWHR units. As the company feels the changes are attributable to program activities, please provide any supporting documents or other relevant data.

Response:

Table 1 provides the number of builders participating in the DWHR program and the number of active residential builders in Union's franchise area in 2008. The 2008 "Residential Builders in Union Gas Franchise Area" value represents the total number of builders who applied for at least one new service in 2008, and thus had the opportunity to participate in the 2008 DWHR program. This value is not available for 2007 or 2009. Table 2 provides the number of DWHR installations as a percentage of the new housing stock in Union's franchise since 2007.

Table 1

	Participating Builders	Residential Builders in Union Gas Franchise Area
2007	20 (actual)	N/A
2008	51 (actual)	850
2009F	71 (target)	N/A

Table 2

	Housing Starts	DWHR Installs	%
2007	18,728 (actual)	906 (actual)	4.8%
2008	18,428 (actual)	1543 (actual)	8.4%
2009F	10,400 (forecast)	1248 (target)	12%

UNION GAS LIMITED

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

Ref.: Table 5, Page 31 of 43

Regarding Table 5 on page 31 (2010 Market Transformation Incentive Scorecard):

- a) Is the focus of this initiative limited to residential new construction (i.e. the units installed metric is limited to units installed in new homes)? Is it all new homes, or a sub-segment (e.g. single family detached) of the market?
- b) Approximately how many new homes are built each year in Union's target market for this program?
- c) Please provide the results to date (in 2009) for each of the first two metrics.
- d) Please describe how the specific targets for each of the three proposed metrics (e.g. 100% targets of 90, 14%, +6% and +6%) were selected.
- e) For the third and fourth metrics (increased awareness), is the targeted increase an increase in percent terms or percentage point terms? For example, if the 2009 awareness was 20%, is the 100% metric an increase to 21.2% (i.e. $1.06 * 0.20$) or 26% (i.e. $0.06 + 0.20$)?
- f) Is the Company committed to using both the same survey questions and the same survey strategy regarding recruitment of respondents for the baseline (i.e. 2009) and program year measurements? If not, why not?
- g) Regarding the fifth and sixth metrics, numbers of workshops, please describe these workshops. How long are they typically? Is attendance free for participating builders and subcontractors?
- h) Does the Company view the maximum incentive that could be paid for any one metric to be the 150% value. In other words, if 110 builders participated, would the Company get credit for a score of 22.5 (150% of the allocated weight of 15 points) or a score of 30 (200% of the allocated weight of 15 points)?

Response:

- a) The focus of the DWHR initiative is limited to residential new construction, including single-family and attached homes.
- b) Please see response at Exhibit B3.5.

- c) As of July 30, 2009, there are 74 builders participating in Union's 2009 DWHR program and there have been 706 DWHR installations.
- d) The 2010 specific targets for each of the three proposed metrics were selected as placeholders to indicate continuous improvement from one year to the next. Union will consult with the Evaluation and Audit Committee ("EAC") in Q4 2009 to develop a finalized scorecard for 2010.
- e) The targeted increase is an increase in percentage point terms (i.e. $0.06 + 0.20$).
- f) Yes. Union will use the same survey questions and survey strategy.
- g) There are no metrics dedicated to the number of workshops for DWHR in 2010. However, Union Gas does support such workshops in order to train builders and sales agents on the technology and how to effectively market the product. Workshops generally run between 1 and 2 hours, depending on the venue, and attendance is free for participating builders and subcontractors.
- h) The maximum incentive is 150%, or a score of 22.5.

UNION GAS LIMITED

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

Ref.: Page 35 of 43

New Input Assumptions: 1. Pre-Rinse Spray Nozzle

Please indicate how the program will ascertain the flow-rate of the existing nozzle for valid application of the savings assumptions (3.0 GPM). If the program will not attempt to verify the flow-rate, please provide all information related the existing flow-rates of pre-rinse nozzles.

Response:

Whether it is a Union Gas representative or a third party delivery agent replacing an existing spray valve, the spray valve being replaced is visually inspected and replaced if it is deemed to be at least 5 years old and/or have a GPM rating that is in line with the input assumptions as outlined in Union's Pre-Rinse Spray Nozzle (0.64) Substantiation Document.

UNION GAS LIMITED

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

Ref.: Page 37-38 of 43

New Input Assumptions: 2. 1.0 GPM Faucet Aerator (Bathroom and Kitchen)

Please provide details and justification for the adjustments made to the Navigant savings calculation for the 1.0 GPM units.

Response:

Navigant Consulting did not include 1.0 GPM multi-family kitchen or bathroom faucet aerators in their Substantiation Documents. Union calculated the resource savings for these measures by adjusting Navigant's calculations for 1.5 GPM multi-family kitchen and bathroom faucet aerators respectively, as found in their Substantiation Documents. The savings were calculated using the following assumptions:

Bathroom Aerator

Water Savings – Assumption and Inputs

- Average household size: 2.14 persons¹
- Baseline faucet use (all faucets) per capita per day: 53 litres (14 gallons)¹
- Bathroom faucet use as a percentage of total faucet use: 15%²
- Point estimate of quantity of water that goes straight down the drain: 70%³

$$W = Fu * Ppl * 365 * Ba * ((1-Dr) - (1-(Flbase - Fleff)/Flbase)* Dr)$$

Where:

W = Water Savings (gallons)

Fu = Faucet use per capita (gallons)

Ppl = Number of people per household

¹ Summit Blue (2008) and Census 2006. To maintain consistency with Summit Blue number but to reflect the fact that apartments are generally occupied by fewer people than houses, the Summit Blue number was degraded by the ratio of the average number of inhabitants per apartment in an Ontario building over five stories (2) to the average number of inhabitants of a fully detached house in Ontario (2.9).

² DeOreo, W. and P. Mayer, The End Uses of Hot Water in Single Family Homes from Flow Trace Analysis, 1999 cited in Summit Blue (2008).

³ Summit Blue (2008).

365 = Days per year

Dr = Percentage of water that goes straight down the drain

Ba = Individual bathroom faucet use as a percentage of total faucet use

Flbase = Flow rate of base equipment (GPM) 2.2 GPM

Fleff = Flow rate of efficient equipment (GPM) 1.0 GPM

Gas Savings – Assumptions and Inputs

- Faucet water temperature: 32 degC (90 degF)⁴
- Water inlet temperature: 7.22 degC (45 degF)⁵
- Water heater energy factor: 0.57⁶

$$G = W * 8.33 * (T_{out} - T_{in}) * (1/EF) * 10^{-6} * 27.8$$

Where:

G = Gas Savings (m³/yr)

W = Water savings (gallons)

8.33 = Energy content of water (Btu/gallon/degF)

T_{out} = Faucet water temperature (degF)

T_{in} = Water inlet temperature (degF)

EF = Water heater energy factor

10⁻⁶ = Factor to convert Btu to MMBtu

27.8 = Factor to convert MMBtu to m³

Kitchen Aerator

Input & calculation method is the same as above except:

Water Savings – Assumptions and Inputs

- Kitchen faucet use as a percentage of total faucet use: 65%⁷
- Point estimate of quantity of water that goes straight down the drain: 50%⁸

⁴ Average of findings in two studies. Mayer, P. W. et al, Residential Indoor Water Conservation Study: Evaluation of High Efficiency Indoor Plumbing Fixture Retrofits in Single-Family Homes in East Bay Municipal Utility District Service Area, 2003 and Skeel, T. and Hill, S. Evaluation of Savings from Seattle's "Home Water Saver" Apartment/Condominium Program, 1994. Both cited in Summit Blue (2008)

⁵ Chinnery, Glen. Policy Recommendations for the HERS Community to Consider regarding HERS point credit for Waste Water Heat Recovery Devices, EPA, Energy Star for homes, March 2004
http://www.energystar.gov/ia/partners/bldrs_lenders_raters/downloads/Waste_Water_Heat_Recovery_Guidelines.pdf

⁶ Assumption of the Ministry of Energy of Ontario. See Table 4,
<http://www.energy.gov.on.ca/index.cfm?fuseaction=conservation.guide13>

⁷ DeOreo, W. and P. Mayer, The End Uses of Hot Water in Single Family Homes from Flow Trace Analysis, 1999 cited in Summit Blue (2008).

⁸ Summit Blue (2008).

$$W = Fu * Ppl * 365 * Ki * ((1-Dr) - (1-(Flbase - Fleff)/Flbase)* Dr)$$

Where:

W = Water Savings (gallons)

Ki = Kitchen faucet use as a percentage of total faucet use

Flbase = 2.5 GPM

Gas Savings – Assumptions and Inputs

Gas savings was calculated the same as for bathroom aerators

UNION GAS LIMITED

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

Reference: 2010 DSM Plan, p.4 and Table 1.

IGUA notes that Enbridge Gas Distribution, in its 2010 DSM Plan, has provided definitive budget breakdown as between customer segments [EB-2009-0154, Ex. B/2]. Please provide Union's best current forecast of DSM budget costs to be allocated to each customer class identified in the referenced table 1.

Response:

Please see response at Exhibit B2.2 b).

UNION GAS LIMITED

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

Reference: 2010 DSM Plan, p.4 and Table 1.

Please provide DSM budget costs allocated to each customer class identified in the referenced table for each of the 2009, 2008 and 2007 program years.

Response:

Please see response at Exhibit B2.4.

UNION GAS LIMITED

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

Reference: 2010 DSM Plan, p.4 and Table 1.

- a) Please confirm that industrial distribution customers are included in both the "Commercial" and the "Distribution Contract" categories on the referenced table.
- b) Please explain the rationale for collapsing of commercial and industrial customers into homogeneous contract and non-contract customer segments for DSM purposes.
- c) Please explain how DSM costs are allocated as between commercial and industrial customers, given that they don't appear to be separately identified for DSM programming purposes.
- d) Please provide the 2010 estimate requested in question 1, and the historical information requested in question 2, for industrial customers specifically. Please break down this estimate by activity category (i.e. incentives, education, administrative, etc.).

Response:

- a) Confirmed.
- b) Industrial General Service (i.e., non-contract) is not a large enough market sector to be stand alone in the 2010 plan and encompasses programming offered in the Commercial market.
- c) Please see response at Exhibit B2.2 a).
- d) Union does not break down the costs for incentives, education, administrative, etc., at the industrial customer segment level. Industrial customers are tracked in two separate sectors. The "Distribution Contract" sector tracks the industrial contract customers and the "Commercial" sector tracks both commercial and small non-contract industrial customers. Union does not break out costs for the small non-contract industrial customers. Incentive costs are tracked at the sector level. Administration, education, etc., are tracked at the overall portfolio level.

UNION GAS LIMITED

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

Reference: 2010 DSM Plan, p.12.

Union states: As appropriate, Union may introduce new, positive TRC programs, drop planned programs or adjust the programs or incentive levels outlined in this section. How and when would Ontario Energy Board approval for any such changes be sought?

Response:

Union will work with its EAC in the fourth quarter of 2009 to develop a list of 2010 SSM input assumptions (based on Navigant's report), screened for positive TRC utilizing 2010 avoided costs. This updated list of 2010 SSM input assumptions will be filed with the Board for approval.

UNION GAS LIMITED

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

Reference: 2010 DSM Plan, p.18.

Under the "Strategy" heading for the Commercial Existing Buildings program segment, Union states that it has identified market segments with like characteristics around which it will organize its Commercial Existing Buildings DSM offerings. Please identify these market segments.

Response:

Union has identified 10 distinct market segments (as indicated on pp. 19-20 of the 2010 DSM Plan). Within these individual market segments, there exist sub-segments with like characteristics. Examples are indicated under the various main market segments contained in the plan.

UNION GAS LIMITED

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

Reference: 2010 DSM Plan, pp. 20, 22, 23.

- a) Union states (page 23, bottom): There is an increased interest by customers for Union to take a larger role in communicating efficiency measures and opportunities. Please indicate the basis for this conclusion, and elaborate on the communication role/activities referred to.
- b) The plan discusses the creation of education and communication vehicles and website refreshing to meet the distinct information needs of commercial, institutional and industrial customer groups. Please indicate how much money is budgeted to be spent on this education and communication activity in total for industrial customer groups (contract and non-contract) in 2010.

Response:

- a) The conclusions reached by Union are based on ongoing direct communication with customers through forums such as field sales visits, customer meetings as well as customer research conducted over the last two years. One of the key conclusions was that Union would be seen as more customer focused if it was more proactive in communicating with commercial and industrial customers, particularly in the area of conservation programs. It was concluded that there is currently a low level of awareness of Union's conservation program offerings. Activities being considered include expanded customer training sessions, expanded customer access to online technical information and support, expanded distribution of newsletters and magazines, additional case study development and improved information about potential support and suppliers.
- b) For 2010, Union Gas has specifically budgeted \$120,000 for customer education, training and workshop materials for commercial and industrial customers. In addition to these costs, a portion of Union's program implementation budget is also set aside for communicating new and existing DSM programs, energy efficiency technologies and energy management initiatives and activities.

UNION GAS LIMITED

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

Reference: 2010 DSM Plan, Appendix B, p.2.

Please provide the basis (other than reference to previous OEB decisions) for the 56% free rider assumption for industrial DSM initiatives.

Response:

The 56% free rider rate for Union industrial DSM initiatives is based on the rate determined in the October 31, 2008 Custom Projects Attribution Study conducted by Summit Blue Consulting, LLC (pg. 28). This free rider rate was agreed upon between the EAC and Union.

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association ("LPMA")

Ref: Page 5

- a) Please provide the 2007, 2008 and 2009 DSM targets, both with and without Low Income.
 - b) Please provide the actual TRC values for 2007 and 2008, both with and without Low Income. Please also indicate if the values for both years are audited actuals.
 - c) Please show the calculation of the estimated 2010 target utilizing actual audited values for 2007 and 2008 and the most current estimate of 2009 results. Please provide the calculation with and without Low Income.
-

Response:

- a) Union's TRC targets with Low Income are provided in Table 1 below. Union did not calculate TRC targets without Low Income for 2007 – 2009.

Table 1 – Union Gas TRC Targets

Year	100% Net TRC Target
2007	\$188,000,000
2008	\$180,171,773
2009	\$220,163,371

- b) Union's actual TRC values for 2007 and 2008, with and without Low Income, are in Table 2 below.

Table 2 – Union Gas Actual Audited Net TRC with and without Low Income

Year	Actual Audited Net TRC	
	Includes Low Income	Low Income Removed
2007	\$215,895,940	\$209,011,840
2008	\$262,754,219	\$255,832,500

- c) As outlined in Section 2.2, p. 5 of Union's 2010 DSM Plan, the calculation of the 2010 target will follow the formula:

[2007 actual audited net TRC (less LI TRC results) + 2008 actual audited net TRC (less LI TRC results) + 2009 actual audited net TRC (less LI TRC results)] / 3 X 115% = 2010 net TRC target]

Due to the unknown inputs of the calculation at this time Union is not in a position to provide a meaningful estimate of the 2010 target. The 2010 net TRC target will be calculated with the exclusion of Low Income TRC results. The Low Income Plan for 2010 will be filed separately in the fall of 2009.

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association ("LPMA")

Ref: Page 7

The evidence states "The approved 2010 DSM Measures and Input Assumptions Report (EB-2008-0346) completed by Navigant has been used as the starting point for the 2010 SSM assumptions". Other than the free rider rates and the two additional measures referenced in the evidence, has Union used figures that differ from those provided by Navigant? If yes, please provide a complete list showing the measure, the Navigant figure and the Union figure. Please also provide an estimate of the impact on the calculation of the TRC based for each of the differences.

Response:

Other than the free rider rates and the two additional measures referenced in the evidence, Union has not used figures that differ from those provided by Navigant.

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association ("LPMA")

Ref: Pages 7 & 8

Will Union be able to track amounts to be recovered/rebated to customers for the SSM, LRAM and DSMVA accounts for each of rates M1 and M2? If not, when will Union be able to allocate such amounts individually to these rate classes?

Response:

Yes, Union will track amounts to be recovered/rebated to customers for the SSM, LRAM and DSMVA accounts for each of rates M1 and M2.

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association ("LPMA")

Ref: Page 11

- a) Has Union been involved in any electric DSM activities in 2007, 2008 or 2009? If so, please provide the costing on a fully allocated basis and indicate whether any net revenues have been generated that have or will be shared with ratepayers.
- b) Does Union plan any electric DSM activities for 2010? If yes, please elaborate and provide details.

Response:

- a) Union has had no programming partnerships with electric utilities in 2007, 2008 or 2009.
- b) Union has no current plans for electric DSM activities for 2010.

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association ("LPMA")

Ref: Page 26

Union intends to focus on the Drain Water Heat Recovery ("DWHR") in its market transformation program.

- a) Please indicate if DWHR units were available at retail outlets in 2007. If so, please indicate where such units could be purchased.
- b) Are DWHR units currently available at retail stores? If yes, please provide a list of major retailers that carry such units.

Response:

- a) DWHR units were available in 2007 at Sears Home Central and The Home Depot.
- b) DWHR units are currently available at The Home Depot.

UNION GAS LIMITED

Answer to Interrogatory from
London Property Management Association ("LPMA")

Ref: Page 31, Table 5

- a) For each of 2007, 2008 and 2009 (forecast) please provide the number of participating builders and the number of residential builders in Union's franchise area.
- b) Please provide the current number of participating builders in 2009.
- c) For each of 2007, 2008 and 2009 (forecast) please provide the number of housing starts in Union's franchise area, the number of DWHR installs and the percentage of installs.
- d) Please provide the most recent number of DWHR installs for 2009.
- e) Please provide the 2007, 2008 and 2009 (forecast) percentages for the Customer Awareness Survey.
- f) Please provide the 2007, 2008 and 2009 (forecast) percentages for the Builder Knowledge Survey.

Response:

- a) Please see response at Exhibit B3.5.
- b) There are 74 participating builders as of July 30, 2009.
- c) Please see response at Exhibit B3.5.
- d) There have been 706 DWHR units installed as of July 30, 2009.
- e)

	Customer Awareness Survey
2007	15%
2008	32%
2009F	40% (target)

- f)

	Builder Knowledge Survey
2007	58%
2008	75%
2009F	83% (target)

UNION GAS LIMITED

Answer to Interrogatory from
Low-Income Energy Network ("LIEN")

Ref:

Please point in the evidence to, or otherwise provide details of, the number and type of residential participants in the DSM program, exclusive of low-income.

Response:

At the time of Union's 2010 DSM submission Union could not accurately determine a 2010 participant target because of the many unknown inputs. As the TRC target has not yet been determined, Union has not identified participant targets at this time.

UNION GAS LIMITED

Answer to Interrogatory from
Low-Income Energy Network ("LIEN")

Ref:

Please confirm that, in addition to removing the allocation of funds for low-income consumers from the DSM budget, Union has also adjusted all related metrics (for example, but not limited to, number of participants and TRC) to exclude low-income consumers. Please provide supporting figures.

Response:

Confirmed. As noted on page 5 of Union's 2010 DSM Plan, Union will exclude TRC results achieved through its Low Income program in the calculation of the 2010 TRC Target.

Please refer to Exhibit B5.1 c) for the calculation of the 2010 TRC.

UNION GAS LIMITED

Answer to Interrogatory from
Low-Income Energy Network ("LIEN")

Ref:

Please point in the evidence to, or otherwise provide details of, the number of participants, costs and incentives in the Union DSM program for residential consumers, (a) in aggregate, (b) broken out into residential types (eg. single-family dwelling, multi-occupancy etc.), and, in each case, (c) broken out into basic and deeper measures.

Response:

- a) Union's current forecast of DSM budget costs to be allocated to each customer class has been provided at Exhibit B2.2 b). At the time of Union's 2010 DSM submission, Union could not accurately determine a 2010 TRC target because of the many unknown inputs. As the TRC target has not yet been determined, Union has not identified participant targets at this time or projected the costs specifically allocated for incentives.
- b) Union does not break out its projected residential numbers based on residential types (eg. single-family dwelling, multi-occupancy etc.).
- c) Union does not characterize the measures in its residential programs as basic or deeper measures.

UNION GAS LIMITED

Answer to Interrogatory from
Low-Income Energy Network ("LIEN")

Ref:

Please point in the evidence to, or otherwise provide details of, what residential communities will be targeted for outreach in the Union DSM program and how outreach of those selected communities will be achieved.

Response:

Union actively targets energy efficiency to all of its 1.2 million residential customers.

UNION GAS LIMITED

Answer to Interrogatory from
Low-Income Energy Network ("LIEN")

Ref:

Please point in the evidence to, or otherwise provide details of, and trend for growth or otherwise in the numbers reached by and participating in Union's residential DSM programs. Please supply supporting figures.

Response:

Number of Participants – Residential Mass Market DSM Program

2005	178,330
2006	425,173
2007	367,194
2008	405,992

UNION GAS LIMITED

Answer to Interrogatory from
Low-Income Energy Network ("LIEN")

Ref:

Please point in the evidence to, or otherwise provide details of, how Union measures the effectiveness of its programs in terms of the benefit to residential consumers beyond costs saved by the measures.

Response:

Beyond costs saved by the measures delivered through Union's programs which target residential consumers, Union measures the effectiveness of its programs through the results of its annual persistence survey, its residential customer satisfaction survey, and through tracking the website statistics of the energy conservation content found on its website.