August 29, 2012

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

Dear Ms. Walli:

Re: EB-2012-0087 - Union Gas Limited - 2011 Earnings Sharing & Disposition of Deferral Accounts and Other Balances – Undertaking Responses

Please find attached Union's responses to the undertakings from the Technical Conference for EB-2012-0087. JT1.1 and JT1.2 are attached, as well as Union's response to an additional undertaking request at page 107 in the transcripts. No exhibit number was provided for this undertaking request.

If you have any questions please contact me at (519) 436-5473.

Yours truly,

[*Original Signed by*]

Karen Hockin
Manager, Regulatory Initiatives

cc Alexander Smith (Torys)
Crawford Smith (Torys)
EB-2012-0087 Intervenors

UNION GAS LIMITED

Undertaking of Ms. Lynch
To Dr. Higgin

Please provide a table that compares the 'rules' for 2012 based on the Board's DSM Guidelines to the 2011 'rules' listed in part Energy Probe TCQ #2A).

Please find below a summary of the "rules" for allocating each category of DSM cost as recorded in the DSM Deferral/Variance accounts to the rate classes.

	2011 Rules Established in EB-2006-0021	**2012 Rules Established in EB-2008-0346**
LRAM	First year impact is calculated as 50% of the annual volumetric impact multiplied by the distribution rate for each of the rate classes that the volumetric variance occurred in. The balance in the LRAM deferral account is allocated to rate classes in proportion to the margin reduction attributed to that rate class.	First year impact will be calculated on a monthly basis based on the volumetric impact of measures implemented in that month multiplied by the distribution rate for each of the rate classes that the volumetric variance occurred in. The balance in the LRAM deferral account is allocated to rate classes in proportion to the margin reduction attributed to that rate class.
DSM Incentive	Incentive amounts are allocated to the rate classes in proportion to the net TRC benefits attributable to the respective rate classes.	Incentive amounts are allocated to the rate classes in proportion to the DSM program spending in the respective rate classes.
Low-Income*	Low-income program costs and overheads are allocated to rate classes in proportion to the actual DSM spending by rate class.	Low-income program costs and overheads will be allocated using the most recent Board-approved distribution revenue by rate class.
DSM Budget in Rates	Cost allocation in rates shall be on the same basis as budgeted DSM spending by customer class. This allocation applies to both direct and indirect DSM program costs.	Cost allocation in rates should be on the same basis as budgeted DSM spending by customer class. This allocation applies to both direct and indirect DSM program costs.
DSMVA	Records the difference between actual DSM costs incurred and the DSM budget included in rates. The balance in the DSMVA is allocated to rate classes in proportion to the actual DSM spending by rate class.	Records the variance between actual DSM spending by rate class relative to the DSM budget included in rates by rate class. The balance in the DSMVA is allocated to rate classes in proportion to the actual DSM spending by rate class.

* Note: For the Incremental Low-Income Plan approved in EB-2010-0055, program costs and overheads are allocated to the M1 and Rate 01 rate classes based on the 2011 net volume savings from the program.

UNION GAS LIMITED

Undertaking of Ms. Elliott
To Mr. Quinn

To provide the evidence related to the derivation of the SPCD from the Generic QRAM Proceeding (EB-2008-0106) and, if necessary, the 2004 Rate Proceeding (EB-2003-0063)

The North PGVA captures gas cost variances in gas supply commodity only. The balance is calculated by deferring actual Empress gas costs against the Alberta Border Reference Price each month. North transportation deferred costs are not included in the North PGVA but instead are accounted for in the TCPL Tolls & Fuel - Northern & Eastern Operations deferral account (No. 179-100). Account No. 179-100 captures variance between actual TCPL tolls and those approved in rates.

The South PGVA captures variances between the forecasted landed cost of gas (both gas supply and transportation costs) to serve sales service customers in Union South and the Ontario Landed Reference Price. The Ontario Landed Reference Price is calculated by adding the TCPL EDA toll and fuel to the Alberta Border Reference Price. As the forecasted landed cost of serving South sales service customers based on Union's South Portfolio will differ from the landed cost of serving those customers from Empress to the TCPL EDA, the South PGVA will always have a debit or credit balance. This debit or credit balance is recovered from South sales service customers through the South Portfolio Cost Differential ("SPCD").

As noted above, the SPCD is determined by comparing the forecasted landed cost of serving South sales service customers, based on Union's South Portfolio, to the cost of serving these customers from Empress to the TCPL EDA. An example of the calculation can be found at Attachment 1. The SPCD is added to or subtracted from the TCPL EDA toll to determine the South transportation rate. Please see Attachment 2 column g). The result is sales service customers in the South are charged a rate for regulated gas supply service equivalent to the expected landed cost over the forward 12-month period.

Please see Attachment 3 for Exhibit E2 page 8-15 from Union's prefiled evidence from the Generic QRAM proceeding (EB-2008-0106).

Please see Attachment 4 for Exhibit D1, Tab 1 page 21-23 and D1, Tab 3, page 7-9 from prefiled evidence from Union's 2004 rates application (RP-2003-0063).

Union has also attached Tab 1 from the prefiled evidence for Union's July 2012 QRAM application (EB-2012-0249) as Attachment 5.

Filed: 2012-08-29
EB-2012-0087
Exhibit JT1.2
Attachment 1

Filed: 2012-06-06
EB-2012-0249
Tab 1
Schedule 2

UNION GAS LIMITED
Calculation of South Portfolio Cost Differential & South Transportation Rate
For the 12 month period ending June 30, 2013

Line No.	Particulars				
1	South Purchased Gas Variance Account (SPGVA) ($000's)	$	106,472		(1)
2	South Consumption Volumes (PJ's)		112.0		(2)
3	South Portfolio Cost Differential (Line 1/Line 2)	$	0.951	/GJ	
4	TCPL Transportation EDA Toll	$	2.243	/GJ	
5	South Portfolio Cost Differential (Line 3)	$	0.951	/GJ	
6	South Transportation Rate (Line 4 - Line 5)	$	1.292	/GJ	

Notes:
(1) Tab 1, Schedule 3, page 4, Column (g), Line 27.
(2) Demand forecast for South sales service customers for the period July 2012 to June 2013.

UNION GAS LIMITED
Deferral Account for
South Purchased Gas Variance Account
(Deferral Account 179-106)

Line No.	Particulars		Purchase Cost ($000's) (a)	Volume (GJ) (b)	Weighted Avg. Price ($/GJ) (c) = (a)/(b)	Reference Price ($/GJ) (1) (d)	Unit Rate Difference ($/GJ) (e) =(c) - (d)	Monthly Deferral Amount ($000's) (f) = (b) x (e)	Southern Portfolio Cost Differential Adjustment ($000's) (g)	Deferral Amount Before Interest ($000's) (h) = (f) + (g)	Adjustments ($000's) (i)	Total Deferral Before Interest ($000's) (j) = (h) + (i)	Interest ($000's) (2) (k)	Total Deferral Amount ($000's) (l) = (j) + (k)
1	Cumulative to end of June, 2011							$ (426,279)	$ 122,912	$ (303,367)	$ 4,558	$ (298,810)	$ (1,195)	$ (300,005)
2	July, 2011	*	$ 39,839	7,928,411	$ 5.025	$ 6.114	$ (1.089)	$ (8,635)	$ 6,511	$ (2,123)	$ -	$ (2,123)	$ (3)	$ (2,127)
3	August	*	$ 46,043	9,861,439	$ 4.669	$ 6.114	$ (1.445)	$ (14,250)	$ 6,511	$ (7,739)	$ -	$ (7,739)	$ (11)	$ (7,750)
4	September	*	$ 36,972	7,973,324	$ 4.637	$ 6.114	$ (1.477)	$ (11,777)	$ 6,302	$ (5,476)	$ -	$ (5,476)	$ (25)	$ (5,501)
5	October, 2011	*	$ 43,563	9,094,325	$ 4.790	$ 5.808	$ (1.018)	$ (9,257)	$ 8,071	$ (1,186)	$ -	$ (1,186)	$ (36)	$ (1,222)
6	November	*	$ 38,586	8,845,637	$ 4.362	$ 5.808	$ (1.446)	$ (12,789)	$ 7,796	$ (4,993)	$ -	$ (4,993)	$ (36)	$ (5,029)
7	December	*	$ 38,909	9,173,964	$ 4.241	$ 5.808	$ (1.567)	$ (14,374)	$ 8,071	$ (6,303)	$ -	$ (6,303)	$ (35)	$ (6,338)
8	January, 2012	*	$ 35,390	9,179,200	$ 3.855	$ 5.386	$ (1.531)	$ (14,049)	$ 8,230	$ (5,819)	$ -	$ (5,819)	$ (27)	$ (5,846)
9	February	*	$ 29,664	8,587,890	$ 3.454	$ 5.386	$ (1.932)	$ (16,590)	$ 7,699	$ (8,891)	$ -	$ (8,891)	$ (16)	$ (8,907)
10	March	*	$ 24,993	8,347,826	$ 2.994	$ 5.386	$ (2.392)	$ (19,969)	$ 8,230	$ (11,738)	$ -	$ (11,738)	$ (12)	$ (11,750)
11	April, 2012		$ 20,115	7,329,657	$ 2.744	$ 4.665	$ (1.921)	$ (14,078)	$ 8,044	$ (6,034)	$ -	$ (6,034)	$ (20)	$ (6,054)
12	May		$ 20,642	7,453,674	$ 2.769	$ 4.665	$ (1.896)	$ (14,129)	$ 8,312	$ (5,818)	$ -	$ (5,818)	$ (43)	$ (5,861)
13	June		$ 22,592	7,218,522	$ 3.130	$ 4.665	$ (1.535)	$ (11,083)	$ 8,044	$ (3,039)	$ -	$ (3,039)	$ (48)	$ (3,088)
14	Total (Lines 1 to 13)		$ 397,307	100,993,869				$ (587,259)	$ 214,733	$ (372,527)	$ 4,558	$ (367,969)	$ (1,508)	$ (369,477)
	Current QRAM Period													
15	July, 2012		$ 28,429	8,923,397	$ 3.186	$ 4.823	$ (1.637)	$ (14,609)	$ 9,043	$ (5,566)	$ -	$ (5,566)	$ -	$ (5,566)
16	August		$ 28,971	8,923,397	$ 3.247	$ 4.823	$ (1.576)	$ (14,066)	$ 9,043	$ (5,023)	$ -	$ (5,023)	$ -	$ (5,023)
17	September		$ 28,793	8,635,546	$ 3.334	$ 4.823	$ (1.489)	$ (12,856)	$ 8,751	$ (4,105)	$ -	$ (4,105)	$ -	$ (4,105)
18	October, 2012		$ 30,420	8,923,397	$ 3.409	$ 4.823	$ (1.414)	$ (12,618)	$ 9,043	$ (3,575)	$ -	$ (3,575)	$ -	$ (3,575)
19	November		$ 31,745	8,477,272	$ 3.745	$ 4.823	$ (1.078)	$ (9,141)	$ 8,751	$ (390)	$ -	$ (390)	$ -	$ (390)
20	December		$ 35,062	8,759,847	$ 4.003	$ 4.823	$ (0.820)	$ (7,187)	$ 9,043	$ 1,856	$ -	$ 1,856	$ -	$ 1,856
21	January, 2013		$ 36,109	8,759,847	$ 4.122	$ 4.823	$ (0.701)	$ (6,139)	$ 9,043	$ 2,903	$ -	$ 2,903	$ -	$ 2,903
22	February		$ 33,367	7,912,120	$ 4.217	$ 4.823	$ (0.606)	$ (4,793)	$ 8,168	$ 3,374	$ -	$ 3,374	$ -	$ 3,374
23	March		$ 36,079	8,759,847	$ 4.119	$ 4.823	$ (0.704)	$ (6,170)	$ 9,043	$ 2,873	$ -	$ 2,873	$ -	$ 2,873
24	April, 2013		$ 34,638	8,477,272	$ 4.086	$ 4.823	$ (0.737)	$ (6,248)	$ 8,751	$ 2,503	$ -	$ 2,503	$ -	$ 2,503
25	May		$ 35,681	8,759,847	$ 4.073	$ 4.823	$ (0.750)	$ (6,567)	$ 9,043	$ 2,476	$ -	$ 2,476	$ -	$ 2,476
26	June		$ 34,808	8,477,272	$ 4.106	$ 4.823	$ (0.717)	$ (6,078)	$ 8,751	$ 2,674	$ -	$ 2,674	$ -	$ 2,674
27	Total (Lines 15 to 26)		$ 394,103	103,789,061				$ (106,472)	$ 106,472	$ 0	$ -	$ 0	$ -	$ 0

***** Reflects actual information.

Notes:

(1) The reference price from July 2011 to September 2011 is as approved in EB-2011-0135.
The reference price from October 2011 to December 2011 is as approved in EB-2011-0297.
The reference price from January 2012 to March 2012 is as approved in EB-2011-0382.
The reference price from April 2012 to June 2012 is as approved in EB-2012-0070.
The reference price from July 2012 to June 2013 is as proposed in EB-2012-0249.

(2) Interest is computed on the deferral amount balance net of the actual prospective recovery amount for the quarter prior to the current QRAM period.

methodologies. Union acknowledges that further standardization and streamlining is possible and this evidence will propose some changes to that end.

Union's Current QRAM Methodology

Calculation of Gas Supply Reference Price

Union's quarterly gas supply reference price represents an average cost for gas at Empress (the Alberta Border Reference Price) for the next 12 months. Union determines this price by applying a forward Empress basis differential to the future 12-month NYMEX market prices, applying a foreign exchange rate and weighting these monthly prices by the volume Union plans to buy in each of the 12 months. The result is an average cost per gigajoule in Canadian dollars that represents the forward market price at Empress. The reference price is, therefore, essentially a rolling 12-month price that is updated quarterly. This 12-month average price is intended to smooth seasonal prices or cost anomalies that may be present in any of the individual months, so that customers see a more stable rate on their bills. Quarterly updates to this rate are intended to ensure that the reference price adequately reflects any changing market dynamics.

To set the gas supply commodity charge for both the North and South customers, Union adds compressor fuel and the gas supply administration charge to the Empress reference price specific to each delivery area.

Calculation of PGVA Deferred Balances

Union currently maintains separate PGVA's for the North and South. In the North, Union serves its sales service customers using Western Canadian supplies transported to the North on TransCanada Pipelines ("TCPL"). Accordingly, in the North, actual Empress gas costs are deferred against the Empress reference price each month and the cost variances accumulate in the North PGVA account for disposition to the sales service customers at the next QRAM period. The North transportation deferred costs are not included in the PGVA, but instead are accounted for in separate accounts. The separation is necessary because Union provides transportation services in the North to both sales service and DP customers and the deferred balances are disposed of to this combined group.

The South PGVA captures cost variances in both gas supply commodity and upstream transportation. This treatment is appropriate because DP customers in the South do not pay Union for either the gas supply commodity or upstream transportation. Accordingly, the South PGVA is entirely related to sales service activity and is recovered/refunded from only sales service customers. To calculate the South PGVA reference price Union adds the forward forecast of all gas supply and upstream transportation costs to determine the Ontario landed reference price. Actual gas supply and upstream transportation costs are added together (actual landed cost) and are deferred against this Ontario landed reference price to calculate the South PGVA deferral account balances.

Prospective Recovery of the PGVA Deferred Balances

Each quarter Union identifies the debits/credits that have accumulated in both PGVA accounts during the previous quarter and calculates commodity price adjustments (also referred to as rate riders) that recover/refund accumulated deferral account balances prospectively over the next 12 months. Union also includes in the rate rider any variances between the actual and forecast amounts recovered/refunded from the previous quarter as a result of actual consumption varying from planned consumption over the quarter.

Calculation of Transportation Reference Price and Disposition of Deferred Balances

For customers in the North, Union recovers the approved TCPL tolls for each delivery area as part of the gas supply transportation charge. Any variance between actual TCPL tolls and those approved in rates are deferred to the TCPL Tolls and Fuel deferral account. Like the PGVA accounts, disposition of the deferred balances in these accounts is accomplished through a 12-month price adjustment that is initiated in the subsequent quarter.

As indicated above, Union provides the transportation services to all bundled customers, both sales service and DP customers, in the North. The actual transportation costs, therefore, reflect services to both sales service and DP customers and transportation deferred balances are disposed of to both sales service and DP customers. The North PGVA balances are disposed only to sales service customers.

Under Union's approved QRAM process, gas supply transportation rates are adjusted once new TCPL tolls are approved by the National Energy Board.

The South sales service customer rate for transportation services is determined by comparing the average forecasted landed cost of the South portfolio to what the cost would have been had all the South supplies been purchased at Empress and transported on TCPL. This cost differential, referred to as the South Portfolio Cost Differential ("SPCD"), is added to or subtracted from the Eastern Zone TCPL toll to derive the South transportation rate. The result is sales service customers in the South are charged a rate for regulated gas supply service equivalent to the expected landed cost over the forward 12-month period.

As indicated above, in the South Union provides transportation services to sales service customers only. As a result, the South PGVA captures variances between the Ontario landed reference price and the actual landed cost as associated with serving sales service customers in the South. The balances in the South PGVA are disposed only to sales service customers.

Other Gas Supply-Related Deferral Accounts

In addition to the North PGVA, the TCPL Tolls and Fuel deferral account and the South PGVA, Union maintains the following gas supply related deferral accounts that are disposed of as part of the QRAM process:

- Inventory Revaluation Deferral Account – records the change of inventory value that results when the gas supply reference price is reset each quarter.
- Spot Gas Variance Account – records costs incurred to balance Union's operating system beyond what was forecast in rates.

Both accounts are disposed of prospectively over 12 months.

Distribution Rate Adjustments

Reference price changes driven by Union's QRAM process do not currently cause Union to update its revenue requirement and, as a result, its distribution rates. Union's delivery rate includes the costs associated with gas in inventory, compressor fuel and unaccounted for gas ("UFG"). These delivery-related costs of gas items are not currently updated through the QRAM process. Instead, the price variance between the cost of gas included in Board approved rates and the WACOG determined in the QRAM is captured in the Intra-Period WACOG deferral account. The Intra-Period WACOG deferral account is not disposed of as part of the QRAM process. This account is disposed of annually.

Rate Stability for Customers

It is Union's view that the QRAM provides customers with the appropriate balance between rate stability and market price sensitivity. Rate stability is achieved through Union's QRAM methodology because forecast costs are averaged over the forward 12 months and any past cost variances are also recovered/refunded over the forward 12

months. Changing the gas supply commodity charge quarterly is sufficiently responsive to changing market conditions.

Approximately 35 percent of customers are enrolled in the Equal Billing Plan to achieve further bill stability. In this program, Union averages anticipated monthly bill costs for each customer over a 12-month period starting in September. Customers pay the equal billing amount each month from September to July with a true-up amount in August. Union will adjust the equal billing amount through the year, if required, to accommodate any significant changes in either gas commodity charges or consumption.

At page 17 of the Board's EB-2007-0606/EB-2007-0615 Decision (dated July 31, 2008), the Board commented on the importance both the QRAM and the equal billing plan have on reducing price volatility and smoothing customer impacts. The Board concluded that:

> *"...in the event of price volatility customers are subject to the price impacts, but the use of the QRAM process and the equal billing plan have the effect of smoothing customer impacts generally in any event."*

Examination of Possible Alternatives to Price-Setting Forecast and Disposition Periods

To compare the attributes of Union's current QRAM methodology to other alternative methodologies that may be considered in this proceeding, Union prepared an analysis of what the Empress reference price and the price adjustment (rate rider) would have been under different price adjustment scenarios if these scenarios had been in place over the last four years.

Specifically, Union considered three alternative QRAM scenarios and compared the results to Union's current QRAM process. The scenarios considered were:

1. Monthly Updates with a 12-month Outlook period and a 12-month Deferral Disposition Period.
2. Quarterly Updates with a 3-month Outlook period and a 3-month Deferral Disposition Period.
3. Monthly Updates with a 1-month Outlook period and a 1-month Deferral Disposition Period.

The purpose of this exercise was to determine whether or not, with the benefit of actual information, a better alternative to the current QRAM exists. A better alternative is defined as one that offers improved balance between price stability and market price sensitivity. Stability is measured through a volatility calculation, defined as the range in which prices occurred within one standard deviation of the mean, or 68 percent of the time. Market price sensitivity was measured by calculating the absolute difference between Union's actual cost of gas and the rate approved each quarter through the QRAM process. The actual cost of gas was intended to generally represent market prices. Ideally a preferred QRAM would have low volatility and a low variance to the actual cost of gas. Since these two attributes often move in different directions, it is necessary to strive for a reasonable balance between the two.

The following graphs show the results of the comparative analysis. Union concludes that the current QRAM methodology continues to offer the best balance of stability and price sensitivity.

Joint South/North Accounts

- create joint Spot Gas account
- create joint Inventory Revaluation account
- create joint Unabsorbed Demand Charge account

North Accounts

A separate North PGVA will be established. The North PGVA combined with the North Tolls and Fuel accounts will capture cost variances related to commodity and transportation variance for Union's North customers. Similarly, the Heat Value account is applicable to North customers and will capture costs related to heat value variances. The Firm PGVA account will be closed.

South Accounts

Union has eliminated the OPGCA in response to the load balancing/flexibility directive and to reflect new balancing requirements for direct purchase contracts. Union has also eliminated the South Tolls and Fuel account, also to reflect the load balancing/flexibility directive and associated changes. In place of these accounts, Union will establish the South PGVA, which will track Union's South Portfolio gas cost (including tolls and fuel). As a result of load balancing

changes, all gas costs associated with the South Portfolio will flow to South sales service customers.

Since the reference price for the South PGVA is based on the Ontario Landed Reference Price rather than the South Portfolio cost, inappropriate debits/credits will accumulate in the South PGVA on a forecast and actual basis. Credits, for example are created when the South Portfolio costs are less expensive than the Ontario Landed Reference Price. To correct for this, Union proposes the introduction of the South Portfolio Cost Differential ("SPCD"). The SPCD is defined as the difference between the Ontario Landed Reference Price and the South Portfolio cost. Union proposes to adjust the transportation component of the Total Gas Supply Charge for the South by the amount of the SPCD, to reflect the costs of delivering sales service supplies to the South. This adjustment will offset any forecast debits (or credits) projected to accumulate in the South PGVA. Table 2 illustrates the deferral account impact on the South PGVA after the application of the SPCD mechanism, on one unit of volume (see Appendix B – Calculation of Alberta Border and Ontario Landed Reference Price for more detail).

Table 2 - Impact of SPCD on South PGVA

Ontario Landed Reference Price	$6.32
Less:	
Forecast South Portfolio Cost	6.18
South Portfolio Cost Differential (SPCD)	0.14
Net South PGVA Balance	$0.00

Union will continue to use the Alberta Border Reference Price as the basis for the gas supply commodity rate for all customers in the North and South. For the North, the transportation rate will be based on the TCPL tolls to each delivery area. For the South customers, the transportation rate will be based on the TCPL tolls to the EDA, adjusted by the SPCD. This mechanism will ensure all Union's sales service customers will have the same Alberta Border Reference Price. The difference in landed costs to sales service customers in different delivery areas will be primarily reflected in the transportation rates. This is not a new concept, since Union already has multiple transportation rates across the North to reflect the different landed costs in the various delivery areas.

The result will be the elimination of the classification of Flexibility related costs and the recovery of these same costs from South sales service customers through the SPCD.

1. REFERENCE PRICE AND PRICE ADJUSTMENT MECHANISM

As part of the QRAM, Union determines the price of natural gas at Empress. The Empress price forms the basis of the gas supply deferral account reference prices as well as the gas supply commodity rates in both the South and the North.

Under the currently approved QRAM mechanism, Union uses a consensus forecast method to calculate the Empress price. For the purposes of calculating the Empress price, Union is proposing to discontinue the use of the consensus forecast and replace this method with a 21-day average of the NYMEX one-year strip [1] (i.e. for the next 12 months). The 21-day average of the NYMEX one-year strip would be calculated based on a simple average of 21 consecutive days of the closing NYMEX price for the 12 month strip, ending no earlier than 45 days prior to the QRAM implementation date. In this regard the calculation would mirror that used by Enbridge. Union will also add the Empress basis [2] valuation, using sources such as CIBC or TD Bank, to the average NYMEX strip to calculate the Empress one-year futures price. Finally, Union will apply its forecast of risk management costs to the Empress one-year futures price to calculate the Alberta Border Reference Price. The Ontario Landed Reference Price is then calculated as the

[1] Market Strip Price -- The market strip price refers to the average future price over a specified term. The most common strips are the one-year strip (12 months), the summer strip (7 months April to October), and the winter strip (5 months November to March). For example the one-year NYMEX strip starting Nov03 is the average price of the month November 2003 to October 2004 inclusive divided by twelve.

[2] Basis -- The differential that exists at any time between the future or forward price for a given commodity and the comparable cash or spot price for the commodity. Basis can reflect different times periods, product qualities, or locations. For example an Empress basis of minus forty cents US/MMBtu indicates that the value of gas at Empress is worth 40 cents US/MMBtu less than the value of NYMEX gas for the same period.

Alberta Border Reference Price plus 100% load factor TCPL tolls (to the Eastern Delivery Area) plus fuel.

Union also proposes to replace the consensus forecast with market strips, to forecast gas cost deferral balances. The NYMEX one-year market strip plus appropriate market basis will be applied to the planned forecast volumes for each basin where Union acquires supply to determine the projected gas cost deferral balance.

To illustrate, for the January 1, 2004 QRAM, the one year NYMEX strip used to calculate the Empress price will consist of the simple average of the one year futures price for the January 2004 to December 2004 period. This will be calculated at the close of NYMEX trading for 21 consecutives days with the last trading day being no earlier than November 17, 2003. The result of this calculation is then adjusted by the Empress basis valuation to arrive at the Empress one-year futures price. As noted above, Union will then apply the impacts of forecast risk management activity to the Empress one-year futures price to determine the Alberta Border Reference Price.

As noted above, the Alberta Border Reference price, forms the basis of the gas supply commodity rates in the South and the North. This will continue to be the case under Union's proposed QRAM process. As noted at Exhibit D1, Tab 1, Appendix B, Union is proposing to adjust the transportation component of the Total Gas Supply Charge in the South to account for the fact that the South is largely served with non-TCPL supplies. The Southern Portfolio Cost

Differential (SPCD), described in more detail at Exhibit D1, Tab 1, pp. 21 - 23, will also be adjusted as part of the QRAM process. At each QRAM, Union will calculate the difference between the landed cost of the Southern Portfolio and the Ontario Landed Reference Price, and will update the SPCD at each QRAM. Any change in the SPCD will be reflected in the transportation component of the South Total Gas Supply Charge and will impact the "Transportation" line on the customer bill.

Union is proposing that the reference prices and associated gas supply commodity rates be updated quarterly to reflect changes in the one-year market futures price at Empress, inclusive of forecast impacts of risk management activity. Union will update the reference price, SPCD and associated gas supply commodity rates quarterly regardless of the amount of the change, thus eliminating the QRAM price adjustment trigger that is currently $0.05/GJ.

2. PROSPECTIVE RECOVERY OF DEFERRAL BALANCES

Under Union's current QRAM, the prospective recovery of deferral account balances is not automatic. The current process does, however, contemplate the prospective recovery of deferral account balances once the approved deferral account trigger balance is exceeded. This has been the case since E.B.R.O. 493/494. In the Board's E.B.R.O. 493/494 Decision with Reasons (dated March 20, 1997) the Board said:

PREFILED EVIDENCE OF

MARY EVERS, MANAGER, GAS SUPPLY

INTRODUCTION

The purpose of this evidence is to set deferral account reference prices to reflect Union's gas cost forecast for the 12-month period commencing July 1, 2012 pursuant to the Quarterly Rate Adjustment Mechanism ("QRAM") as approved by the Board.

1. CURRENT GAS MARKET OUTLOOK

The NYMEX strip has decreased by $0.018 (US$/mmbtu) or approximately 1% since the Board approved April 1, 2012 QRAM filing (EB-2012-0070). The Empress basis has changed from negative $0.669 (US$/mmbtu) to negative $0.557 (US$/mmbtu) while foreign exchange has strengthened (Canadian dollar weakening) from $1.002 to $1.016 over the same period. These factors result in a net increase of $0.168 (CAD$/GJ) to the Alberta Border Reference Price.

2. PRICING

2.1 Alberta Border Reference Price

The approved method for calculating the Alberta Border Reference Price uses the 21-day average of the twelve month NYMEX strip. The NYMEX strip used in this application is for July 2012 to June 2013. The one-year NYMEX strip is converted to an Alberta Border Reference Price by taking into account the Empress-NYMEX basis and the foreign exchange rate for the July 2012 to June 2013 period. (See Tab 1, Schedule 1 for the details of this

calculation.)

Based on the approved method, the Alberta Border Reference Price for the period July 1, 2012 to June 30, 2013 is $2.527/GJ. This represents an increase of $0.168/GJ from the Alberta Border Reference Price of $2.359/GJ last approved by the Board in EB-2012-0070.

The Alberta Border Reference Price will be the reference price for the North Purchased Gas Variance Account ("NPGVA") (Deferral Account No. 179-105), and in the TCPL Tolls and Fuel – Northern and Eastern Operations Area deferral account (Deferral Account No. 179-100) with respect to fuel gas. It will also be the reference price for the Spot Gas Variance Account (Deferral Account No. 179-107) for incremental purchases made at Empress.

2.2 Ontario Landed Reference Price

The Ontario Landed Reference Price is $4.823/GJ and is calculated by adding the TCPL EDA toll and fuel to the Alberta Border Reference Price as shown on Tab 1, Schedule 1. This represents an increase of $0.158/GJ from the Ontario Landed Reference Price of $4.665/GJ last approved by the Board in EB-2012-0070. This change includes the increase in the Alberta Border Reference Price of $0.168/GJ plus the associated changes in TCPL compressor fuel costs.

The Ontario Landed Reference Price will be the reference price for the South Purchased Gas Variance Account ("SPGVA") (Deferral Account No. 179-106), and the Spot Gas Variance Account (Deferral Account No. 179-107), for incremental purchases made at Dawn.

2.3 South Portfolio Cost Differential

The South Portfolio Cost Differential ("SPCD") is determined by comparing the projected cost of serving South sales service customers, based on Union's South Portfolio, to the cost of serving South sales service customers based on the Ontario Landed Reference Price. This difference is divided by forecast South Sales Service Demand to derive the SPCD. For the 12-month period beginning July 1, 2012 the SPCD is projected to be $0.951/GJ as shown on Tab 1, Schedule 2. The SPCD results in a South Transportation Sales Rate of $1.292/GJ calculated by subtracting the SPCD of $0.951/GJ from the TCPL EDA toll of $2.243/GJ. This calculation ensures that South sales service transportation rates are appropriately set at a level equal to the projected average cost over the 12-month forecast period.

3. DEFERRAL ACCOUNTS

3.1 Impact on Gas Supply Deferral Account Balances

The current forecast of gas cost related deferral account balances at June 30, 2012 is shown on Tab 1, Schedule 3. The opening deferral account balances are the projected deferral account balances at July 1, 2012 plus the projected inventory revaluation adjustment at July 1, 2012.

The deferral account forecast is based on the actual and forecast gas costs for the period July 1, 2012 to June 30, 2013 and on the proposed Alberta Border Reference Price and the Ontario Landed Reference Price effective July 1, 2012.

3.2 Deferral Account Adjustments

To ensure that there is continued alignment between the QRAM deferral account schedules and Union's general ledger, a reconciliation of each deferral account occurs on a monthly basis and any adjustments are included in the QRAM deferral account schedules.

3.3 Prospective Recovery of Deferral Account Balances

July 1, 2012 deferral account balances relating to the North PGVA, North Tolls and Fuel, South PGVA, Inventory Revaluation, and Spot Gas accounts are identified in Tab 1, Table 1.

Table 1
Proposed Prospective Recovery of Deferral Account Balances
Effective July 1, 2012

Line No.	Particulars ($000's)		Total Deferral	
1	North PGVA		(137,727)	(1)
2	North Tolls and Fuel :			
3	Northern Tolls	16,678		
4	Northern Fuel Costs	(2,274)		
5	Total North Tolls and Fuel		14,404	(2)
6	South PGVA		(369,477)	(3)
7	Inventory Revaluation		(4,888)	(4)
8	Spot Gas Variance Account :			
9	Spot Gas	(7,289)		
10	Load Balancing	1		
11	Total Spot Gas Variance Account		(7,288)	(5)
12	Total		(504,975)	

Notes:
(1) North PGVA Account (Deferral No. 179-105) as identified in Schedule 3, Page 2.
(2) North Tolls and Fuel Account (Deferral No. 179-100) as identified in Schedule 3, Page 3.
(3) South PGVA Account (Deferral No. 179-106) as identified in Schedule 3, Page 4.
(4) Inventory Revaluation Account (Deferral No. 179-109) as identified in Schedule 3, Page 5.
(5) Spot Gas Variance Account (Deferral No. 179-107) as identified in Schedule 3, Page 6.

3.4 UDC Account

The Joint Unabsorbed Demand Costs Account balances are not prospectively recovered in accordance with the current Board-approved QRAM process. Union will dispose of any deferral account balances through the annual deferral account disposition process.

UNION GAS LIMITED

Undertaking of Mr. Isherwood
To Mr. Quinn

To Update EB-2011-0210, Exhibit J6.5 for all of the actual assignments done in the calendar year 2011.

Union does not agree that the requested undertaking is relevant to the issues raised in this proceeding. Nevertheless, Union provides the attached tables (Attachment 1 - 4) in response. These tables, which include toll differentials, should not be taken out of context. The Gas Supply Plan ("Plan") has not been re-run for the hypothetical example. Some, but not all, of the considerations of contracting for different supplies are identified below and on the attached.

As reflected in Union's gas supply related evidence, cost, while important, is not the sole determinant of the Plan. Other considerations include planned peak day and seasonal gas requirements, and diversity of supply.

At the EB-2012-0087 Technical Conference, starting at page 116 of the transcript, in response to Union's attempts to understand the relevance of the undertaking request, FRPO indicated that they required the information to understand the choices and implications of those choices on the Plan. In the course of the exchange, FRPO proposed that termination of Firm Transportation (FT) from Empress to EDA transport and the use of Short Term Firm Transport (STFT) from Empress to the NDA or WDA may be an alternative to consider in the Plan. Using this example of STFT from Empress to the NDA, the following items would need to be addressed:

1) Terminate long haul FT transport from Empress to EDA and EDA-Dawn Storage Transportation Service (STS)
2) Purchase winter STFT transport from Empress to NDA
3) Purchase short haul FT transport from Parkway to EDA
4) Purchase summer STFT or Interruptible Transport (IT) from Empress to Dawn

A graphical representation is attached. Each item is discussed in further detail below.

1) Terminate long haul FT transport from Empress to EDA and EDA-Dawn STS service

Assume 100% of Union's FT Empress to EDA transport is terminated effective April 1 – equivalent to 59,251 GJ/d. Union prefers to purchase FT transport from Empress to EDA because it includes renewal rights, provides the lowest cost TCPL long haul transport to any location on an annual basis, and provides flexibility to manage consumption variances through diversion rights (allows day to day flexibility to move gas between delivery areas). These features are not available with TCPL's STFT service. With the termination of the FT contract, these rights would be lost. Union would also have to terminate the STS contract to the EDA, as

it is not available for contracts sourced at Dawn or applicable to STFT contracts – equivalent to 68,520 GJ/d.

- The proposed cost of FT Empress to EDA in TCPL's Restructuring Proposal is $1.7578 GJ/d
- The proposed cost of STS to EDA-Dawn in TCPL's Restructuring Proposal is $0.2466 GJ/d

2) Purchase winter STFT transport from Empress to NDA

To compensate, Union would need to purchase STFT from Empress to NDA of 59,251 GJ/d for November to March which would replace the FT that was terminated from Empress to EDA. However, while TCPL offers STFT services each summer for the following winter, there is no assurance that the service would be available going forward. Pipeline maintenance and integrity work may affect availability as well as the impact of TCPL's potential conversion of some gas pipelines to oil service. In the event that the service were not available when the contracting period were to open, Union would need to consider other alternatives to ensure that the winter transportation needs to the NDA were satisfied. The costs of these alternatives is unknown but it can reasonably be expected to cost more, potentially substantially more, than STFT.

- The proposed cost of STFT from Empress to NDA in TCPL's Restructuring Proposal is $1.94278 GJ/d

3) Purchase short haul FT transport from Parkway to EDA

Union would also need to purchase 68,520 GJ/d of FT or STFT from Parkway to EDA, November to March to transport gas from storage to EDA to replace the STS contract to the EDA. The TCPL website indicates that FT service is not available and Union would need to wait for TCPL's next expansion open season to make a request for service. This would require Union to commit to a 10 year contract term and at least a 2 year lead time to allow for the construction of facilities. During TCPL's last STFT open season, no transport capacity was available from Parkway to EDA. TCPL has indicated that it will not build for STFT service. These limitations mean that this scenario could not be considered until November 2014 at the earliest.

The STFT contract from Empress to NDA would result in an oversupply of gas supply in the NDA. This gas supply would offset withdrawals from STS from Parkway to the NDA. This gas supply continues to be required in the EDA, and Union would be required to purchase an additional FT Parkway to EDA transportation contract of 59,251 GJ (again with a 10 year term) to transport the gas supply from Parkway to the EDA throughout the year.

- The proposed cost of FT Parkway to EDA in TCPL's Restructuring Proposal is $0.2466 GJ/d

4) Purchase summer STFT or IT transport from Empress to Dawn

Union would also need to purchase the equivalent of 59,251 GJ of gas supply at Empress and transport to Dawn using STFT or IT transport, or purchase that gas directly at Dawn from April to October. This gas would go into storage.

- The proposed cost of IT Empress to Dawn in TCPL's Restructuring Proposal is a range of $1.5037 GJ/d to 2.4059 GJ/d

In addition to the above considerations, when FT from Parkway to EDA is available, this transportation service does not include the multiple nomination windows that are available using STS. As a result, while Union could deliver gas to the EDA in the winter months, variances between actual consumption and nominated activity would be managed through the Limited Balancing Agreement service (LBA). These variances would be higher than what Union currently experiences due to the reduced nomination windows. The LBA service has escalating fees based on the daily balance, and the fees attributable to Union customers would increase compared to the fees accrued using STS. Daily and hourly variations in customer consumption are affected by temperature, sunshine or cloud cover and wind, making nomination accuracy challenging.

The outline above requires the following changes:

1) Terminate long haul FT transport from Empress to EDA and EDA-Dawn Storage Transportation Service (STS)
   - FT = 59,251 GJ/d & STS = 68,520 GJ/d
2) Purchase winter STFT transport from Empress to NDA
   - STFT = 59,251 GJ/d
3) Purchase short haul FT transport from Parkway to EDA
   - FT = 59,251 GJ/d & FT = 68,520 GJ/d
4) Purchase summer STFT or Interruptible Transport (IT) from Empress to Dawn
   - STFT or IT = 59,251 GJ/d

The economic impacts of this scenario are set out below:

Path		Quantity GJ/d	TCPL Proposed Toll ($/GJ/d)	Annual Impact
Empress to EDA - FT	Annual	59,251	1.7578	38,015,264
EDA/Dawn STS	Annual	68,520	0.2466	6,167,417
Costs of Current Portfolio				$ 44,182,681
Empress to NDA - STFT	Winter	59,251	1.94278	17,381,860
Parkway to EDA - FT	Annual	68,520	0.2466	6,167,417
Parkway to EDA - FT	Annual	59,251	0.2466	5,333,123
Empress to Dawn - IT	Summer	59,251	1.5037	19,066,486
Costs of Scenario				$ 47,948,886
Incremental costs of Scenario over Current Portfolio				$ 3,766,206

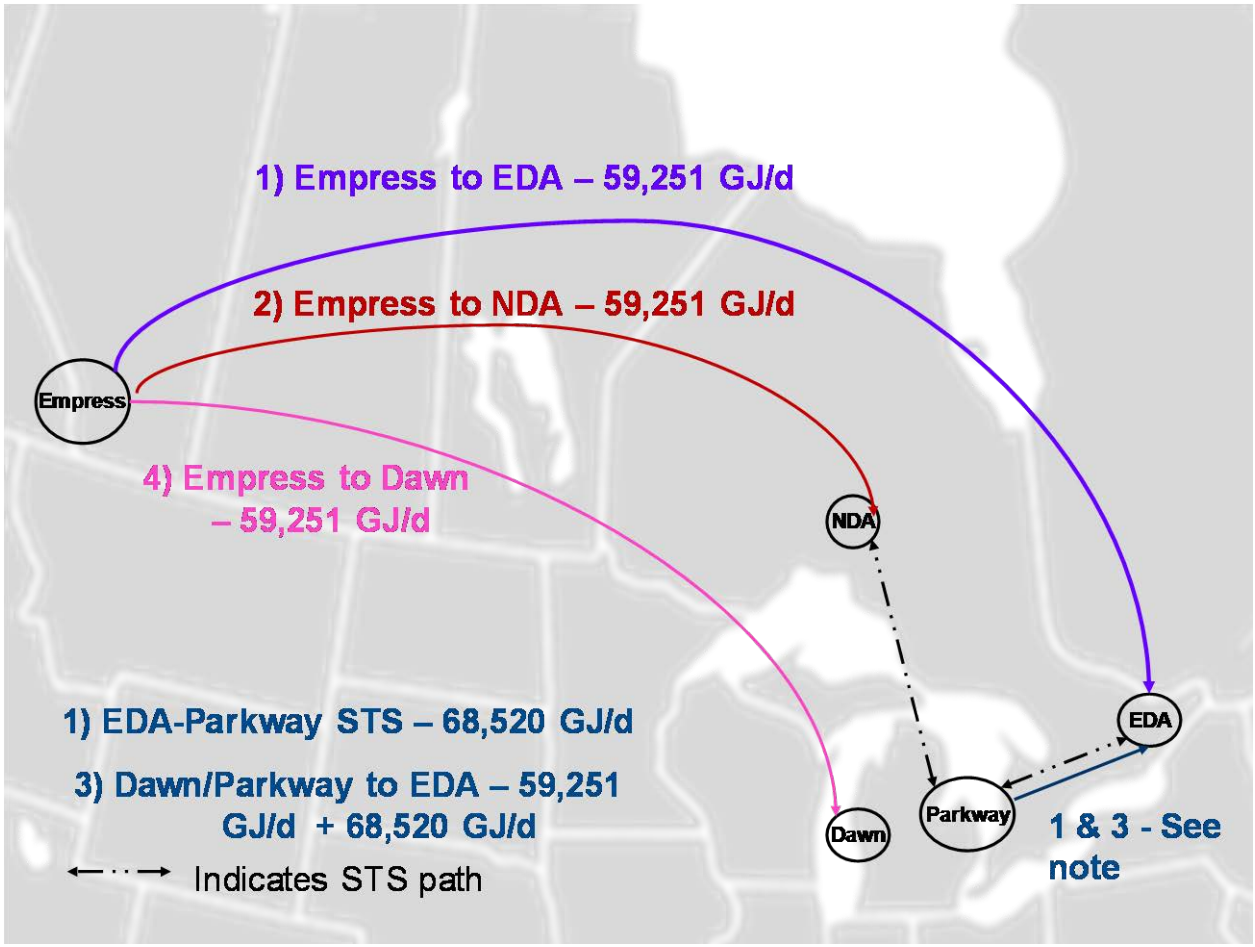
This scenario does not result in reduced costs for the ratepayers.

This is not a complete listing of all of the impacts of incorporating this scenario into Union's transportation portfolio, but it does provide an outline of the various areas of consideration. The complete analysis requires an update of the Sendout model which takes a significant amount of time to complete.

Overall, the impacts of incorporating this scenario into the Plan include:

- Change of renewal rights, long term transport availability and pricing when considering FT vs STFT;
- Reduced service flexibility including nomination windows and diversions when considering FT with STS vs FT from Dawn or STFT;
- Availability of firm transportation from Parkway through the TCPL bottleneck at Maple and to the EDA;
- Additional hourly and daily balancing costs; and,
- Flexibility to adjust the portfolio if consumption requirements change – both seasonally and annually.

The Plan includes a transportation portfolio that addresses the objectives and principles that have previously been approved by the Board and reflects a prudent and efficient Plan that provides long term delivery security to Union's customers. The scenario suggested by FRPO does not result in lower costs to ratepayers, and introduces risk associated with availability of transportation and costs of transport (STFT) to ratepayers.



2011 Capacity Assignments - CDA

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
	Redelivery Point (GJ/d)				Demand Charge ($/gj/mo)				Demand Charge ($000's)				Difference in Demand Charges ($000's)	Net Proceeds ($000's) *
	WDA	NDA	SWDA (Dawn)	TOTAL	WDA	NDA	SWDA (Dawn)	EZ (CDA)	WDA	NDA	SWDA (Dawn)	EZ (CDA)		
Jan-11	20,000	20,000	-	40,000	23.79107	36.72520	39.79320	47.77094	476	735	-	1,911	701	450
Feb-11	20,000	20,000	-	40,000	23.79107	36.72520	39.79320	47.77094	476	735	-	1,911	701	290
Mar-11	20,000	20,000	-	40,000	32.29092	49.65158	53.88793	63.84842	646	993	-	2,554	915	306
Apr-11	-	-	40,000	40,000	32.29092	49.65158	53.88793	63.84842	-	-	2,156	2,554	398	408
May-11	-	-	68,000	68,000	32.29092	49.65158	53.88793	63.84842	-	-	3,664	4,342	677	716
Jun-11	-	-	68,204	68,204	32.29092	49.65158	53.88793	63.84842	-	-	3,675	4,355	679	761
Jul-11	-	-	68,204	68,204	32.29092	49.65158	53.88793	63.84842	-	-	3,675	4,355	679	787
Aug-11	-	-	68,204	68,204	32.29092	49.65158	53.88793	63.84842	-	-	3,675	4,355	679	787
Sep-11	-	-	68,204	68,204	32.29092	49.65158	53.88793	63.84842	-	-	3,675	4,355	679	761
Oct-11	-	-	68,204	68,204	32.29092	49.65158	53.88793	63.84842	-	-	3,675	4,355	679	787
Nov-11	-	-	66,000	66,000	32.29092	49.65158	53.88793	63.84842	-	-	3,557	4,214	657	1,722
Dec-11	30,000	30,000	-	60,000	32.29092	49.65158	53.88793	63.84842	969	1,490	-	3,831	1,373	1,241
													Total	**9,015**

Notes:

* Net proceeds represent net revenue from capacity release/exchange transaction, less incremental costs incurred as a result of the transaction.

For 2011, the combination of net proceeds from Attachment 1 (CDA), Attachment 2 (EDA), Attachment 3 (NCDA) and Attachment 4 (NDA) total $14.42M.

2011 Capacity Assignments - EDA

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
	Redelivery Point (GJ/d)				**Demand Charge ($/gj/mo)**				**Demand Charge ($000's)**				**Difference in Demand Charges ($000's)**	**Net Proceeds ($000's)***
	WDA	**NDA**	**SWDA** (Dawn)	**TOTAL**	**WDA**	**NDA**	**SWDA** (Dawn)	**EZ (EDA)**	**WDA**	**NDA**	**SWDA** (Dawn)	**EZ (EDA)**		
Jan-11	10,000	10,000	-	20,000	23.79107	36.72520	39.79320	47.77094	238	367	-	955	350	176
Feb-11	10,000	10,000	-	20,000	23.79107	36.72520	39.79320	47.77094	238	367	-	955	350	115
Mar-11	10,000	10,000	-	20,000	32.29092	49.65158	53.88793	63.84842	323	497	-	1,277	458	197
Apr-11	-	-	20,000	20,000	32.29092	49.65158	53.88793	63.84842	-	-	1,078	1,277	199	191
May-11	-	-	20,000	20,000	32.29092	49.65158	53.88793	63.84842	-	-	1,078	1,277	199	204
Jun-11	-	-	33,000	33,000	32.29092	49.65158	53.88793	63.84842	-	-	1,778	2,107	329	370
Jul-11	-	-	33,000	33,000	32.29092	49.65158	53.88793	63.84842	-	-	1,778	2,107	329	382
Aug-11	-	-	33,000	33,000	32.29092	49.65158	53.88793	63.84842	-	-	1,778	2,107	329	388
Sep-11	-	-	33,000	33,000	32.29092	49.65158	53.88793	63.84842	-	-	1,778	2,107	329	376
Oct-11	-	-	33,000	33,000	32.29092	49.65158	53.88793	63.84842	-	-	1,778	2,107	329	376
Nov-11	-	-	-	-	32.29092	49.65158	53.88793	63.84842	-	-	-	-	0	-
Dec-11	-	-	-	-	32.29092	49.65158	53.88793	63.84842	-	-	-	-	0	-
													Total	**2,775**

Notes:

* Net proceeds represent net revenue from capacity release/exchange transaction, less incremental costs incurred as a result of the transaction.

2011 Capacity Assignments - NCDA

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
	Redelivery Point (GJ/d)				**Demand Charge ($/gj/mo)**				**Demand Charge ($000's)**				**Difference in Demand Charges ($000's)**	**Net Proceeds ($000's)***
	WDA	**NDA**	**SWDA** (Dawn)	**TOTAL**	**WDA**	**NDA**	**SWDA** (Dawn)	**EZ (EDA)**	**WDA**	**NDA**	**SWDA** (Dawn)	**EZ (EDA)**		
Jan-11	-	-	-	-	23.79107	36.72520	39.79320	47.77094	-	-	-	-	0	-
Feb-11	-	-	-	-	23.79107	36.72520	39.79320	47.77094	-	-	-	-	0	-
Mar-11	-	-	-	-	32.29092	49.65158	53.88793	63.84842	-	-	-	-	0	-
Apr-11	-	-	-	-	32.29092	49.65158	53.88793	63.84842	-	-	-	-	0	-
May-11	-	-	8,796	8,796	32.29092	49.65158	53.88793	63.84842	-	-	474	562	88	91
Jun-11	-	-	8,796	8,796	32.29092	49.65158	53.88793	63.84842	-	-	474	562	88	123
Jul-11	-	-	8,796	8,796	32.29092	49.65158	53.88793	63.84842	-	-	474	562	88	126
Aug-11	-	-	8,796	8,796	32.29092	49.65158	53.88793	63.84842	-	-	474	562	88	127
Sep-11	-	-	8,796	8,796	32.29092	49.65158	53.88793	63.84842	-	-	474	562	88	123
Oct-11	-	-	8,796	8,796	32.29092	49.65158	53.88793	63.84842	-	-	474	562	88	127
Nov-11	-	8,796	-	8,796	32.29092	49.65158	53.88793	63.84842	-	437	-	562	125	92
Dec-11	-	-	-	-	32.29092	49.65158	53.88793	63.84842	-	-	-	-	0	-
													Total	**808**

Notes:

* Net proceeds represent net revenue from capacity release/exchange transaction, less incremental costs incurred as a result of the transaction.

2011 Capacity Assignments - NDA

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Redelivery Point (GJ/d)	**Demand Charge ($/gj/mo)**		**Demand Charge ($000s)**		**Difference in Demand Charges ($000's)**	**Net Proceeds ($000's)***
	SWDA (Dawn)	**NDA**	**SWDA** (Dawn)	**NDA**	**SWDA** (Dawn)		
Jan-11	-	36.72520	39.79320	-	-	0	-
Feb-11	-	36.72520	39.79320	-	-	0	-
Mar-11	-	49.65158	53.88793	-	-	0	-
Apr-11	40,000	49.65158	53.88793	1,986	2,156	(169)	112
May-11	35,000	49.65158	53.88793	1,738	1,886	(148)	156
Jun-11	49,000	49.65158	53.88793	2,433	2,641	(208)	301
Jul-11	49,000	49.65158	53.88793	2,433	2,641	(208)	277
Aug-11	49,000	49.65158	53.88793	2,433	2,641	(208)	285
Sep-11	49,000	49.65158	53.88793	2,433	2,641	(208)	353
Oct-11	49,000	49.65158	53.88793	2,433	2,641	(208)	339
Nov-11	-	49.65158	53.88793	-	-	0	-
Dec-11	-	49.65158	53.88793	-	-	0	-
						Total	**1,822**

Notes:

* Net proceeds represent net revenue from capacity release/exchange transaction, less incremental costs incurred as a result of the transaction.