

July 26, 2006

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

Attention: Ms. Kirsten Walli, Board Secretary

Re: EB-2005-0551 - Union Gas Undertaking Responses - Issue II Storage Regulation

Dear Ms. Walli:

Attached please find in electronically searchable format Union's responses to all Issue II Storage Regulation undertakings received by Union on July 17, 2006 in the above noted proceeding.

This material will also be provided in hard copy to the Board.

If you have any questions concerning this filing please call me at (519) 436-5382.

Yours truly,

Connie Burns, CMA, PMP Manager, Regulatory Initiatives

cc: Glenn Leslie, Blakes

All EB-2005-0551 Intervenors

Undertaking of Steve Poredos To Alick Ryder

To advise whether the "plus or minus 5 % rule" was only included in an undertaking in the ADR process.

The attached Interrogatory Response (Exhibit C24.10) was filed as part of the RP-1999-0017 proceeding prior to the ADR agreement. It stated that a material change was a +/- 5% change in the customer's contract demand (CD). On pg. 24, under Section 1.3.3 of the June 2000 ADR Settlement Agreement there is recognition that storage allocations will be subject to material changes in customer demand:

"Union also confirmed its intent to grandfather all existing T1 storage allocations subject to change only in the circumstances of material changes in customer demand"

Answer to Interrogatory from the Major Energy Consumers and Producers

Question

Reference: Exhibit B, Tab 1, Page 62

Union indicates that it will evaluate and adjust if necessary, the storage allocations should there be a change in the underlying aggregate excess profile of customers. Does this apply to all rate classes? Will this be applied on a customer-specific basis if there is a change in the underlying aggregate excess profile of the specific customer?

<u>Answer</u>

Yes, this applies to all in-franchise rate classes.

Adjustments would only be made if, following annual review, there are material changes in customers' storage requirements. Union considers a 5% change in a customer's CD (contract) or normalized average consumption by rate class segment (general service residential or commercial/industrial) a material enough change to warrant a review of the storage requirement/allocation. For example, Union's proposal to move small volume M4 customers (<5,000,000 m³ annually) into the M2/U2 general service rate class may change the storage allocated to U2, general service, commercial/industrial customers (proposed allocation is 23.6% of a customer's annual normalized volume as identified at Exhibit B, Tab 1, page 62 of 87).

Yes, for contract customers, any storage adjustments will be assessed on a customer-specific basis as discussed above.

Witness: M.W. Packer / S.W. Baker / M. Isherwood

 Question:
 January 31, 2000

 Answer:
 March 17, 2000

 Docket:
 RP-1999-0017

RP-1999-0017

UNION GAS

SETTLEMENT AGREEMENT

Evidence References (1.3.1):

- 1. B/T1/p55, Structure of Unbundled Storage Services
- 2. B/T1/p56-58, Unbundled Storage Service SSS
- 3. C1.42; C1.43; C5.12-14; C24.8; C24.14; C24.21
- 4. B/T1/p2/Supplemental (B).
- 5. Exhibit D5, CEED's prefiled evidence, para. 70-95.

Evidence References (1.3.2):

- 1. B/T1/p55, Structure of Unbundled Storage Services
- 2. B/T1/p58-60, Unbundled Storage Service SPS
- 3. C5.15; C19.7-11; C36.8
- 4. Exhibit D5, CEED's prefiled evidence, para. 70 95.

1.3.3 Space Allocation

[Complete Settlement]

In the Southern Operations area, the allocation of storage space to customers electing the unbundled service option reflects the existing Board approved cost allocation methodology. This methodology allocates storage space and the associated costs to bundled rate classes in proportion to each rate class' "aggregate excess", or difference between winter demand and average annual demand for a 151 day winter period. In addition, Union proposes to apply a factor of 97.6% to each customer's aggregate excess in order to not "over-allocate" storage to unbundled customers. The factor recognizes that some customers have a predominately summer load which reduces the aggregate excess in total.

To simplify the determination of storage allocation for M2 customers, Union has calculated a fixed amount of SSS storage space per residential customer (i.e. 742 m*3) and a commercial/industrial SSS storage space allocation of 23.6% of the customer's normalized annual consumption. Union has indicated that it will examine, and adjust as necessary, the annual storage allocation to reflect changes in the underlying aggregate excess profile. Union also confirmed its intent to grandfather all existing T1 storage allocations subject to change only in the circumstances of material changes in customer demand.

The storage space allocation in the Northern and Eastern Operations area recognizes its unique operational characteristics. First, the space available is allocated by delivery area in relation to the peak day shortfall (i.e. peak day demand less allocated firm transportation capacity). Next, the allocation of storage by rate class within each delivery area is allocated in proportion to each rate class' peak day shortfall. The storage allocation will vary annually depending on the annual changes in the level of TCPL FT capacity underpinning the demand in each delivery area. The storage space allocation for individual customers in each rate class is as follows:

• Rate 01 (residential) – rate class space by delivery area divided by the number of customers in delivery area

- Rate 01 (commercial)/Rate 10 rate class space by delivery area divided by annual demand/volume in delivery area
- Rate 20/100 customer specific allocation by delivery area in proportion to the peak day shortfall

Under Union's proposals, no storage space or delivery/redelivery service was reserved or would be available to existing t-service customers that have not already contracted for storage service.

IGUA had concerns with the storage allocation methodology as proposed for the Northern and Eastern Operations Area. In particular, the concern focused on the impact of the proposed methodology on existing T-service customers currently operating with an allocation of storage capacity.

In order to facilitate the transition to the new allocation methodology, Union agrees to grandfather existing T-service customers currently operating with storage at their existing storage deliverability level, whether these customers remain as t-service or select the new unbundled service. Grandfathering the storage deliverability for existing t-service customers maintains the consistency in approach for both t-service and the new unbundled service.

The following parties agree with the settlement as outlined above: AMO; CAC; CENGAS; Comsatec; Enbridge; Energy Probe; IGUA; LPMA; MECAP; Nova; OESC; Schools; WGSPG.

The following parties take no position on this issue: the Alliance; CEED; John Fullerton; HVAC; Kitchener; OAPPA; TCPL; VECC.

Evidence References:

- 1. B/T1/p60-64, Unbundled Storage Space Allocation
- 2. C1.44-46; C7.6-16; C13.9-12; C15.1; C19.12-15; C21.75; C21.82-85; C22.1-3; C24-9-10; C26.13-15; C34.22-23; C36.9-10
- 3. Exhibit D21, IGUA's prefiled evidence, Tab 2, para. 54 57.

1.3.4 System Integrity Storage Space

[Complete Settlement]

System integrity storage space allows Union to manage weather variations, backstop supply failures and maintain the operational integrity of the delivery system. Union currently has 10.4 Bcf of system integrity storage space underpinning the existing bundled services.

Union's proposal is to maintain 9.1 Bcf of storage space (i.e. 7% of total storage capacity This space includes the following components:

- 3.3 Bcf manage weather variance for non-daily metered customers (range of 3.0-4.0 Bcf)
- 2.3 Bcf Backstop supply failures (range of 2.0-3.0 Bcf)

Undertaking of Steve Poredos To Alick Ryder

To provide the amount of gas that would come out of storage on March 31st should there be a 5 degree colder than forecast day.

If Union experienced weather on March 31 that was five degrees Celsius colder than forecast, the incremental withdrawal from storage would be 198,665 GJs.

Undertaking of Steve Poredos To Alick Ryder

To advise whether customers that agree to less storage than the aggregate excess calculation waive entitlement to that storage capacity.

Yes, please find attached the RP-1999-0017 ADR Settlement Agreement (page 23, first full paragraph after item (v)) which deals with this issue.

RP-1999-0017

UNION GAS

SETTLEMENT AGREEMENT

- 1. B/T1/p45-50, Delivery/Redelivery Service
- 2. B/T1/p50-51, Transportation Capacity Details
- 3. C1.36; C1.48; C36.7

1.2.8 Northern & Eastern Operations Area - Unbundling Costs - Threshold Level

[Complete Settlement]

Union is proposing to manage the risks associated with allocating assets to meet incremental t-service and unbundling requests in the Northern & Eastern Operations area using the asset allocation methodology as outlined in the evidence at Exhibit B1, Tab 1, pp 43-47. Specifically, Union will manage the risks associated with an incremental 30% of combined new t-service and unbundled service demand (representing approximately 830 10*6 m*3 of annual demand) subsequent to November 1, 2000.

In the event that the 30% threshold level as described above was reached, this could trigger a review by Union or other parties to assess the experience and impact of new incremental t-service and unbundled service demand on costs and the operations in the Northern and Eastern Operations area.

The following parties agree with the settlement: AMO; CAC; CENGAS; Comsatec; IGUA; MECAP; OESC.

The following parties take no position on this issue: the Alliance; CEED; Enbridge; Energy Probe; John Fullerton; HVAC; Kitchener, LPMA; Nova; OAPPA; Schools; TCPL; VECC; WGSPG.

Evidence References:

- 1. B/T1/p51-53, Northern and Eastern Market Area Implications for Bundled Services
- 2. C1.37-41; C21.69; C34.21

1.3 Storage

1.3.1 Standard Storage Service

1.3.2 Standard Peaking Service

[Complete Settlement]

The physical operating characteristics of Union's storage facilities have been incorporated into the design of the unbundled storage service. Union's "base" pools which provide a base level of

deliverability are used to provide the Standard Storage Service (SSS) and the high deliverability pool capacity in the Southern Operations Area is used to provide the Standard Peaking Service (SPS), maintain system integrity, and to supplement the SSS late in the withdrawal cycle (ie. late winter). The SSS is available to customers in both operational areas. Since the SPS has been used to serve M2 customers and the costs are currently recovered in M2 rates, the SPS is only available in Union's Southern Operations Area.

The injection and withdrawal parameters of the SSS are based on the amount of gas in inventory, the physical capabilities of the underlying storage assets and pipeline facilities. The daily injection entitlement is 0.75% when the customer's inventory balance is less than or equal to 80% and 0.50% when the customer's inventory balance is greater than 80%. The daily withdrawal entitlement is 1.2% when the customer's inventory balance is greater than or equal to 20% and 0.8% when the customer's inventory balance is less than 20%.

The SPS is a high deliverability storage service used to meet the design day demands of the heat sensitive general service customers in Union's Southern Operations Area (i.e. Rate M2 customers). In the absence of the SPS service, Union could not serve Rate M2 small volume customers on cold days. The withdrawal deliverability is 10% of the maximum storage balance of the SPS. The combination of the SSS and SPS represents the storage service underpinning the existing M2 rate class. Consequently, Union has designed the SSS and SPS to recognize this linkage. The SPS entitlement is determined as 16% of the SSS entitlement. Union has proposed that the SPS service be mandatory as it represents the deliverability currently needed to supply the M2 market. As such, the cost of the SPS was included in Union's delivery rate. Given the amendments to Union's filed proposal as outlined below, Union agrees to separate the cost of SPS from the U2 delivery rate. This is also directionally consistent with the need to separate certain rate components as contemplated and outlined in Union's supplemental evidence (reference). However, unbundled customers will have the ability to manage the service in conjunction with the SSS.

In addition to the above, the following terms and conditions apply to the SPS:

- The SPS account is managed separately from the SSS account.
- The customer will have access to the SPS account and associated deliverability when the forecast mean temperature for a day is -4°C or lower and when the customer's SSS inventory is in excess of 20%.
- Injection into the SPS account will be subject to the injection parameters associated with the SSS during the summer period. Daily injections into the SPS account are 5% of the maximum storage balance during the winter period.

Breaking out the SSS and SPS from the existing total storage service serving existing Rate M2 customers was undertaken in an effort to provide a "base" standard unbundled storage service (SSS) that would apply and be in place across all Union in-franchise rate classes in the Northern and Eastern Operations area and the Southern Operations area. Further, Union's intent in designing the SSS was to achieve consistency with the structure of Union's existing ex-franchise storage services as well as provide a common structure and transparency to facilitate any future changes respecting storage pricing in the future.

Parties expressed concerns over the mandatory nature of Union's unbundled storage service proposals and the linkage in the design of the SSS and SPS as it relates to the small volume Rate M2 rate class. In order to address parties concerns, Union has agreed to amend its unbundled storage proposals as follows:

- The SSS will be optional. This optional feature of the SSS applies to all customers and rate classes in the Northern and Eastern and Southern Operations Areas eligible for an SSS entitlement. This will help to support and foster a more competitive market for storage services in Ontario.
- ii) For Rate M2 customers in the Southern Operations Area with an SPS entitlement, the SPS will continue to be mandatory (subject to the exception noted in (iii) below) and the operation and parameters of the combined SSS/SPS service are as proposed by Union. In this context, parties acknowledge and agree that given the structure and linkage in the design of the SSS/SPS, that the SPS will be available on an interruptible basis in the late winter season (ie. post March 1) to the extent that an unbundled customers gas in inventory is less than 20% of the full (initial) SSS entitlement.
- iii) Further to (ii) above, Union agrees to allow the SPS to be optional in the circumstance where it can be demonstrated that a physical replacement for SPS peaking deliverability exists. In this circumstance, the terms and conditions associated with the SPS being optional are as follows:
 - a) The party providing the physical SPS replacement service must provide to Union an independent third party opinion verifying that it has sufficient physical storage deliverability in Ontario to provide the high deliverability storage peaking service replacement.
 - b) The storage facilities underlying the storage peaking service replacement must be physically and appropriately tied into Union's system in order to provide the required gas flow under design day conditions.
 - c) Parties in the position to provide a storage peaking replacement service must elect to provide 100% of the respective end-use customers SPS requirements (ie. the SPS service will not be split between Union and another service provider).
 - d) The party providing the peaking storage service replacement must have an OEB approved rate under which to provide a storage peaking service replacement.
- iv) Further to (ii) and (iii) above, Union agrees to review proposals advanced by parties through the then existing regulatory process for a contractual SPS replacement service. The review of any such proposals would be undertaken within a timeframe sufficient to allow for any such proposals found to be an appropriate replacement for the SPS service to be implemented effective April 1, 2003. This timeframe will allow for some experience to be gained in terms of operating the new unbundled service prior to considering the merits of a contractual SPS replacement service. To the extent that there is no agreement by parties on the appropriateness of a contractual replacement for the SPS, the resolution of this issue may be

taken to the Board for determination.

v) Consistent with the amendment outlined in (iii) above, Union commits to separating the SPS service from the U2 delivery rate.

In all circumstances, should a customer or a marketer acting on behalf of end-use customers elect less than 100% of their SSS and/or SPS entitlement, this will represent a permanent election. Specifically, customers electing less than 100% of their SSS or SPS entitlement are no longer able to access this capacity at cost in the future. Union will have the ability to utilize this "unelected storage" to meet incremental in-franchise requirements at cost. Unelected storage in excess of that required to meet in-franchise requirements may be used to meet other demands at market rates.

Union shall continue to provide access to cost based storage in circumstances where end-use customers move between REM's. Specifically, Union will not hold a subsequent REM and its customers to an election made by a previous REM not to elect the full unbundled storage service entitlement.

The following parties agree with the settlement: AMO; CAC; CEED; CENGAS; Comsatec; Energy Probe; IGUA; LPMA; MECAP; Nova; OESC; Schools; TCPL; VECC; WGSPG.

The following parties take no position on this issue: the Alliance; Enbridge; John Fullerton; HVAC; Kitchener; OAPPA.

Undertaking of Steve Poredos To Alick Ryder

To provide an explanation for the variation between the aggregate excess and contractual space for customers AH, AI, AJ, AQ, AK, T and Z listed on page 57 of Exhibit 12.2.

Contract Demand (CD) has been selected as the most appropriate variable to warrant a review of customers' storage allocation because CD is a contract parameter (annual or seasonal consumption is typically not a contract parameter) tied to actual consumption that can be verified based on the customer's history. A customer's CD typically does not change frequently. Therefore, the use of the CD provides a stable allocation of storage.

Customers AH, AI, and AJ are natural gas power generation customers not consuming natural gas to expected levels due to Ontario power market conditions. These customers have multi-year long-term contracts with Union and the contractual parameters (storage space and CD) are fixed for the term of the contract.

Customer T's storage allocation was grandfathered in accordance with the RP-1999-0017 ADR Settlement Agreement. The customer has not experienced any change in the CD and, as such, there has been no review of the storage allocation. While a customer's annual and seasonal consumption profile varies each year due to many factors including plant operations and weather, the customer's long-term storage requirement remains unchanged.

Customer Z's storage allocation was also grandfathered in accordance with the RP-1999-0017 ADR Settlement Agreement. When the customer's CD changed (see response to undertaking K.12.7), the storage allocation was reviewed and adjusted to reflect the customer's forecast consumption profile.

In the case of customers AK and AQ, the existing storage space reflects each customer's expected consumption profile at the time the contract was made. The CD has not changed by +/-5%. While a customer's annual and seasonal consumption profile varies each year, the customer's long-term storage requirement remains unchanged.

Undertaking of Michael Broeders To Alick Ryder

To provide the cost of gas supply in rates for 2007 including only those costs recovered through delivery rates.

Undertaking 43A, in Exhibit J12.2 page 50, shows gas plan costs of \$1,151,791,000 in the period April 2006 to March 2007 [line 1 column (b)]. The comparable amount for the 2007 calendar year is \$1,148,248,000 ⁽¹⁾ (see EB-2005-0520, Exhibit D3, Tab 2, Schedule 1, Page 2 of 2, CORRECTED line 14, as attached).

\$1,027,113,000 is collected through gas supply commodity charges leaving \$121,135,000 to be collected through delivery and Northern gas supply transportation rates. Of the \$121,135,000, \$24,839,000 is related to storage. There is also \$85,969,000 of storage related costs allocated to rate classes in Union's 2007 Board approved cost allocation study, which are not part of the gas supply plan.

Witness: Michael Broeders
Question: July 17, 2006
Answer: July 26, 2006
Docket: EB-2005-0551

⁽¹⁾ This is unchanged as a result of the ADR process and the Board's June 29, 2006 decision.

UNION GAS LIMITED Gas Purchase Expense Year Ending December 31, 2007

Line No	Particulars	Volume (TJs) (a)	C	ost (\$000's) (b)	% of Total Volume
Section A		(a)		(D)	(c)
000	Supply Transportation				
1	Western Canadian Firm	100,094	\$	134,417	
2	U.S. Firm	43,447		24,735	
3	Adjustments			63	
4	Total Supply Transport	143,541	\$	159,215	
	Supply Commodity				
5	Western Canadian Firm	70,458	\$	491,103	49%
6	U.S. Firm	43,447		344,312	30%
7	Ontario Delivered Supplies	1,601		13,236	1%
8	Northern Bundled T-Service	29,636		-	20%
9	Adjustments			-	0%
10	Other			24,639	0%
11	Total Supply Commodity	145,142	\$	873,289	100%
	Storage				
12	STS and Related Services		\$	13,947	
13	Total Supply at Cost		\$	1,046,452	
Section B					
	Storage Inventory Change				
14	LNG			-	
15	Other Company Owned	(677)		(6,394)	
16	3rd Party			-	
17	Total Gas (to) from Storage	(677)	\$	(6,394)	
Section C					
18	Total Third Party Storage			395	
19	Total Section A, B, & C		\$	1,040,453	

EB-2005-0520 Exhibit D3 Tab 2 Schedule 1 Page 2 of 2 CORRECTED

<u>UNION GAS LIMITED</u> Gas Purchase Expense <u>Year Ending December 31, 2007</u>

Line No	Particulars	Volume (TJs)	Cost (\$000's)	Non-utility Adjustment	Utility Cost
		(a)	(b)	(c)	(d)
	Gas Supply	, ,	,	. ,	, ,
1	Total Supply at Cost	145,142	\$ 1,046,847		\$ 1,046,847
2	Deferred Costs		84,611		84,611
3	Total Gas Supply	145,142	\$ 1,131,458		\$ 1,131,458
4	Gas (to) from Storage	(677)	\$ (6,394)		\$ (6,394)
5	Intraperiod WACOG	, ,	-		-
6	Winter Peaking Service		3,978		3,978
7	Other Transportation		1,620		1,620
8	Company Use Adj.		14,023		14,023
9	Linepack		(422)		(422)
10	Deferral Adjustment		(1,027)		(1,027)
11	DCC		· •		-
12	UFG Adjustment		5,012		5,012
13	Accounting Adjustment		-		-
14	Total	144,464	\$ 1,148,248		\$ 1,148,248

Undertaking of Drew Quigley <u>To Alick Ryder</u>

To reconstruct table located at page 50 of J12.2.

Please see the attached schedule with the reconstructed table originally submitted as UGL Undertaking 43a and also included on page 50 of Exhibit J12.2 modified to include incremental storage costs and inventory carrying costs.

Witness: Drew Quigley
Question: July 17, 2006
Answer: July 26, 2006
Docket: EB-2005-0551

The following table revises the calculation of the difference in costs between the Board approved Gas Plan and CCK's proposal. Undertaking 43a has been revised to include the costs associated with the incremental bundled in-franchise storage required by the CCK proposal.

Planning Years (\$000's)	2005 (5) (a)	<u>2006</u> (b)	<u>2007</u> (c)	<u>2008</u> (d)	<u>2009</u> (e)	2010 (f)	<u>Total</u> (g)	Average (h)
1 2007 COS Gas Plan Costs (1)	1,680,508	1,151,791	1,127,270	1,119,730	947,465	931,044	6,957,808	1,159,635
2 CCK NGEIR Undertaking 43a (2)	1,676,299	1,149,575	1,126,538	1,119,157	946,827	930,037	6,948,433	1,158,072
Incremental Costs 3 Storage Space (3) 4 Storage Deliverability (3) 5 Storage Commodity (3) 6 Total Incremental Storage Costs	565 734 603 1,902	321 417 342 1,080	168 218 179 564	168 218 179 565	168 218 179 565	168 218 179 565	1,557 2,022 1,661 5,241	260 337 277 873
7 Inventory Carrying Costs (4)	1,631	876	460	460	460	460	4,347	725
8 Revised CCK Undertaking 43a (L2+ L6+ L7)	1,679,832	1,151,532	1,127,562	1,120,182	947,852	931,062	6,958,020	1,159,670
9 Difference in Costs	676	259	(291)	(451)	(387)	(18)	(213)	(35)
10 % Change in Costs	0.040%	0.022%	-0.026%	-0.040%	-0.041%	-0.002%	-0.003%	

Notes:

- (1) Costs represent the EB-2005-0520 forecasted costs of Union's Transportation and Commodity portfolio.

 The years 2009 through 2010 exclude all below the line costs (i.e.: WPS, Other Transport, Fuel Adjustments) as they were not forecast past 2007/08.
- (2) CCK proposal which does not rely on the Aggregate Excess Methodology.
- (3) The cost of incremental storage is calculated as:
 Incremental storage utilized above the Aggregate Excess methodology X Union's 2007 cost based storage rates per RP-2005-0520, Exhibit M.1.6.
- (4) Calculated using RP-2005-0520, 2007 ADR composite rate of return.
- (5) Costs and savings are shown on a planning year basis.

Undertaking of Steve Poredos <u>To Alick Ryder</u>

To provide the annual CD's from the year 2000 to the present for the following customer classes: AH, AJ, AK, AQ, T, Z.

The following is the annual CD for customers T, Z, AH, AI, AJ, AK, AQ for the time period the customer has been in the T1 rate class.

		Firm CD (10*3m*3)					
Rate Class	Customer Name	2000	2001	2002	2003	2004	2005
T1	Customer T	85	85	85	85	85	85
T1	Customer Z	70	70	70	70	65	65
T1	Customer AH					1,245	1,245
T1	Customer AI				277	1,035	1,035
T1	Customer AJ				739	879	879
T1	Customer AK				2,720	2,720	2,630
T1	Customer AQ						64

Undertaking of Steve Poredos To Alick Ryder

To quantify the effects of mitigating the UDC.

As noted in the original response by Union to Undertaking 43a (EB-2005-0551, Exhibit B, Tab 1, UGL Undertaking 43a), total excess pipe capacity remained unchanged in the five year planning horizon between the 2007 COS Gas Supply Plan and the results of UGL Undertaking 43a. The effect of undertaking the analysis requested in UGL Undertaking 43A was to move the summer UDC in the Gas Supply Plan into the winter.

Union reviewed the available pipe capacity in an attempt to quantify the effects of mitigating the UDC. The results are as follows:

- ➤ The total excess pipe capacity remained unchanged on a planning year basis (April to March) the only difference being the timing of unutilized pipe capacity within the planning year.
- ➤ Union has no history which would support that there is a differential between winter and summer UDC mitigation values.
- ➤ Union's normal operating practice is to fill all pipe capacity in the winter to support peak day requirements and to incur any UDC in the summer.

Therefore, Union is of the view there is no incremental UDC mitigation benefits under the scenario provided in Undertaking 43a.

Undertaking of Steve Poredos To Alick Ryder

To compare the cost of summer gas and storage with the cost of winter gas, based on a NYMEX strip for five years at today's prices.

Union has estimated the difference in the cost of buying summer gas and storing it versus the cost of buying winter gas. The difference between the two calculations represents the difference between the market value of storage and the average embedded cost of storage.

The calculation used is identical to that presented in Undertaking 16 from the Technical Conference of this proceeding. As requested, Union used the NYMEX strip for July 18, 2006. The NYMEX strip only provides sufficient forward information to support 4 years of analysis. The basis forecast was derived from various third party industry sources that are readily available.

The following table shows the requested calculations:

_	Cost	Difference
	(Cdn/BCF)	(Cdn/BCF)
Summer 2007		
(with Storage)	\$ 10,339,072	
Winter 07/08	\$ 11,801,762	\$ 1,462,690
Summer 2008		
(with Storage)	\$ 10,119,485	
Winter 08/09	\$ 11,544,403	\$ 1,424,917
Summer 2009		
(with Storage)	\$ 9,852,071	
Winter 09/10	\$ 11,450,191	\$ 1,598,120
Summer 2010		
(with Storage)	\$ 9,648,153	
Winter 10/11	\$ 11,067,599	\$ 1,419,445

Undertaking of Steve Poredos To Ms. Sebalj

Of the 45 customers listed in Undertaking No. 45, provide list of how many, if any, have expressed concern with respect to the inadequacy of the existing aggregate excess methodology for the allocation of storage.

None of the customers listed in Undertaking No. 45, with the exception of Kitchener, have complained about the existing aggregate excess storage allocation methodology.