



June 5, 2006

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

Attention: Mr. Peter O'Dell, Acting Board Secretary

Re: EB-2005-0551 – re EB-2005-0520 Settlement Agreement dated May 15, 2006

Dear Mr. O'Dell:

As identified in EB-2005-0520 Settlement Agreement Issue 5.6: "Is the methodology used to functionalize, classify and allocate system integrity space appropriate?" Union is attaching the respective interrogatories from the said rate case to form part of the record in this proceeding.

Attached please find 10 copies of the respective interrogatories along with an updated index for EB-2005-0551 NGEIR & Storage Regulation. This material was also provided to the Board and all intervenors electronically in searchable format on June 5, 2006.

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

Yours truly,

A handwritten signature in blue ink, appearing to read "Connie Burns", is written over a light blue circular stamp.

Connie Burns, CMA, PMP
Manager, Regulatory Initiatives

cc: Glenn Leslie, Blakes
All EB-2005-0551 Intervenors
EEA Consulting Inc.
Richard Schwindt

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UNION GAS LIMITED

Answer to Interrogatory from
The Greater Cities of Sudbury & Timmins and FONOM

Issue 5.6 - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

Question:

Please provide the total dollars involved for system integrity service broken down into Southern storage, Hagar storage, gas supply/"gas molecules", and another appropriate category.

Response:

<u>Cost Categories</u>	Revenue Requirement ⁽¹⁾ <u>(\$000s)</u>
Hagar Storage	
Return on Rate Base	192
O&M Related	1,697
Depreciation Expense	<u>488</u>
Total	<u>2,377</u>
Southern Storage	
Return on Rate Base	545
O&M Related	154
Depreciation Expense	<u>135</u>
Total	<u>834</u>
Gas Supply/Gas Molecule	
Return on Rate Base	<u>6,080</u>
Other	
Return on Rate Base	56
O&M Related	1,534
Depreciation Expense	<u>183</u>
Total	<u>1,773</u>
Taxes and Accumulated Deferred Tax Drawdown	<u>1,682</u>
Total Revenue Requirement	<u>\$12,746</u>

⁽¹⁾ Reference: Exhibit G3, Tab 5, Schedule 10

Witness: Michael Broeders/ Mark Kitchen
Question: March 27, 2006
Answer: April 4, 2006
Docket: EB-2005-0520

UNION GAS LIMITED

Answer to Interrogatory from
The Greater Cities of Sudbury & Timmins and FONOM

Reference: *Exhibit D1, Tab1, p.3, line 20 ff. states that:*

“Union does not plan to use system integrity space, but rather, the space is held solely for the purpose of balancing unplanned demand or supply variances that may occur throughout each year.”

Issue 5.6 - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

Question:

Please provide the total dollars split to each of the North, the South and ex-franchise customers prior to the allocation described. Please provide the rationale for that division and demonstrate its application.

Response:

	<u>(\$000s)</u>
North	4,763
South	5,257
Ex-franchise	<u>2,726</u>
Total	<u>12,746</u>

Union used the Board approved methodology to allocate system integrity space costs. Union has not proposed any changes related to system integrity space.

Please refer to Exhibit G3, Tab 2, Schedule 11.

Witness: Michael Broeders/ Mark Kitchen
Question: March 27, 2006
Answer: April 4, 2006
Docket: EB-2005-0520

UNION GAS LIMITED

Answer to Interrogatory from
The Greater Cities of Sudbury & Timmins and FONOM

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“Union does not plan to use system integrity space, but rather, the space is held solely for the purpose of balancing unplanned demand or supply variances that may occur throughout each year.”

Issue 5.6 - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

Question:

- a) *Please reconcile Union’s not planning to use the space and gas supply with the statement, at Ex.G3 Tab1 sch.1 p.13, quoted above, that the allocation customers in the South and ex-franchise is “based on how system integrity space is used.”*
- b) *Our understanding is that Hagar is recycled each year as an operating/economic efficiency matter. Please reconcile this with Union’s stated opinion not to use that portion of storage unless something out of the ordinary, something unplanned occurs.*

Response:

- a) Union has identified the possible reasons that system integrity space may be used. Costs have been allocated based on those underlying reasons.
- b) The Hager LNG facility is required to provide winter peak service for firm loads in the North. FONOM’s understanding of Union’s Hager Operations is incorrect. The Hager LNG facility is not fully cycled each year. Typically, small amounts of LNG inventory are cycled annually to replace liquid lost to “boil-off” (vapourization of the liquid natural gas) and for operations training purposes. The Hager LNG facility is also available, as required, for system integrity purposes.

Witness: Michael Broeders/ Drew Quigley/ Steve Poredos
Question: March 27, 2006
Answer: April 4, 2006
Docket: EB-2005-0520

UNION GAS LIMITED

Answer to Interrogatory from
The Greater Cities of Sudbury & Timmins and FONOM

Reference: Ex.D1Tab1 p.3 line 20 ff. states that:

Preamble: "Union does not plan to use system integrity space, but rather, the space is held solely for the purpose of balancing unplanned demand or supply variances that may occur throughout each year.

Issue 5.6 - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

Question:

Please provide the history and details of the use of system integrity space and detail how it is used to allocate between and among ex-franchise customers and among in-franchise customers in the South.

Response:

System integrity space allows Union to manage weather variations, backstop supply failures and maintain operational integrity of the distribution, storage and transmission system. System integrity space has been fully available and utilized as required for the benefit of all customers.

Witness: Steve Poredos / Drew Quigley / Michael Broeders
Question: March 27, 2006
Answer: April 4, 2006
Docket: EB-2005-0520

UNION GAS LIMITED

Answer to Interrogatory from
The Greater Cities of Sudbury & Timmins and FONOM

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Preamble: "Union does not plan to use system integrity space, but rather, the space is held solely for the purpose of balancing unplanned demand or supply variances that may occur throughout each year.

Issue 5.6 - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

Question:

Why would there be no comparable history of use in the North?

Response:

The historical use of system integrity space is similar for the North and South. Please refer to Exhibit J4.04.

Witness: Steve Poredos / Drew Quigley
Question: March 27, 2006
Answer: April 4, 2006
Docket: EB-2005-0520

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The Greater Cities of Sudbury & Timmins and FONOM

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Witness: Steve Poredos / Drew Quigley
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Preamble: "Union does not plan to use system integrity space, but rather, the space is held solely for the purpose of balancing unplanned demand or supply variances that may occur throughout each year.

Issue 5.6 - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

Question:

Please provide the dollar amount of System Integrity Space and gas supply or gas molecules allocated to a typical residential customer (2600 m³) in the North and the South.

Response:

For the 2007 test year, a typical residential customer in the Northern and Eastern Operations area, consuming 2,600 m³ per year, will pay approximately \$10/year in system integrity-related costs. A typical residential customer in the Southern Operations area consuming 2,600 m³ per year will pay approximately \$3/year in system integrity-related costs.

Witness: Mark Kitchen
Question: March 27, 2006
Answer: April 4, 2006
Docket: EB-2005-0520

UNION GAS LIMITED

Answer to Interrogatory from
The Greater Cities of Sudbury & Timmins and FONOM

Reference: Ex.D3 Tab2 sch.1 Gas Purchase Expense

Issue 5.6 - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

Question:

Please isolate the System Integrity Supply costs in Ex.D3 Tab2 sch.1 Gas Purchase Expense for 2007.

Response:

Union does not plan to use the system integrity space or molecules to supply sales services customers in the Gas Supply Plan. Therefore, there are no system integrity commodity costs in the 2007 Gas Purchase Expense Schedule.

Witness: Drew Quigley / Steve Poredos
Question: March 27, 2006
Answer: April 4, 2006
Docket: EB-2005-0520

UNION GAS LIMITED

Answer to Interrogatory from
The Greater Cities of Sudbury & Timmins and FONOM

Reference: *Ex.D3 Tab2 sch.1 Gas Purchase Expense*

Preamble: *In thinking about the purpose, use, cost and allocation of System Integrity Space we see it as being at or towards the top of a triangle of the elements of Union's gas supply. That triangle consists of the basic gas supply at the bottom, WPS and Spot Purchases (although Union says it sees no Spot Purchases for 2007) layered on top along with the Storage Delivery Service from TCPL to allow storage use for the North, then the extra TCPL supply with its UDC to cover the Winter Peak in the North.*

Issue 5.6 - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

Question:

If we are not generally correct in the above description please provide one acceptable to Union.

Response:

Please refer to the following:

- Exhibit J6.28 - for the purpose of system integrity space.
- Exhibit J5.04 a) - for the use of system integrity space.
- Exhibit J13.17 a) - for the costs of system integrity space.

Witness: Drew Quigley / Steve Poredos / Michael Broeders / Mark Kitchen
Question: March 27, 2006
Answer: April 4, 2006
Docket: EB-2005-0520

UNION GAS LIMITED

Answer to Interrogatory from
The Greater Cities of Sudbury & Timmins and FONOM

Reference: Ex.D3 Tab2 sch.1 Gas Purchase Expense

Issue 5.6 - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

Question:

- a) *Would exercise of Union's interruptible rates provide another source of dealing with unplanned demands? What would Union dispatcher's choice be in such an event unplanned demand: to exercise the right of interruption or to dispatch some of the gas in SIS? Would the choice of the SIS alternative mean that Union's revenues would be higher—on interruption there is some loss of delivery revenue is there not?*
- b) *From the perspective of the residential customer, to the extent that interruptible rights were exercised by Union to reduce some portion of unplanned demand then could not the residential customers' rates be lower because SIS levels could be reduced?*

Response:

The interruption of in-franchise load cannot be used as a substitute for system integrity space. The decision to interrupt in-franchise load is used to manage peak day transmission or storage capacity or more local line outages.

Most interruptible load has at least 4 hours to come off the system. On a design day, the interruptible load is already off the system.

Witness: Drew Quigley/ Mark Kitchen/ Steve Poredos
Question: March 27, 2006
Answer: April 4, 2006
Docket: EB-2005-0520

UNION GAS LIMITED

Answer to Interrogatory from
The Greater Cities of Sudbury & Timmins and FONOM

Reference: Ex.D3 Tab2 sch.1 Gas Purchase Expense

Preamble: In Mr. Crawford's letter of Mar.16/07 he states that SIS (contingency space) "allows Union to manage weather variations, backstop supply failures and maintain operational integrity of its storage and transmission system."

Issue 5.6 - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

Question:

Please provide Union's historical experience including the volumes and storage space involved for each of the 3 categories that Mr. Crawford enumerates and include a description of just what is meant by "maintain operational integrity of its storage and transmission system."

Response:

Please refer to Exhibit J6.28 Corrected.

Maintaining operational integrity of the distribution, storage and transportation system means having enough inventory to balance the daily and monthly operational variations that occur as a result of weather, system losses, interconnecting pipeline balancing, supply failures, operational upsets, etc. If system integrity space were not available, Union may not be able to meet its firm daily delivery commitments and would have to purchase supply or space or risk system failure (i.e. firm gas would not be delivered to customers).

Witness: Drew Quigley/ Steve Poredos

Question: March 27, 2006

Answer: April 4, 2006

Docket: EB-2005-0520

Corrected: April 28, 2006

UNION GAS LIMITED

Answer to Interrogatory from
The Greater Cities of Sudbury & Timmons and FONOM

Reference: Ex.D3 Tab2 sch.1 Gas Purchase Expense

Preamble: In Mr. Crawford's letter of Mar.16/07 he states that SIS (contingency space) "allows Union to manage weather variations, backstop supply failures and maintain operational integrity of its storage and transmission system."

Issue 5.6 - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

Question:

Especially in the case of supply failures wouldn't Spot Gas Purchases be as efficient and a much cheaper alternative than SIS? The space would have been made available in the pipeline through the failure and there is always another seller, perhaps even someone with gas in storage, willing to step up to supply the commodity?

Response:

No. During a supply failure, Union does not agree that relying on unplanned spot gas purchases from an unknown seller at an unknown price would be an economic, efficient and reliable alternative to using its system integrity space to meet its system operator responsibilities in the event of a supply failure. Further, spot gas is not guaranteed to be available when or where it is required. Finally, spot gas purchases do not provide an immediate remedy to a supply failure as the period between the discovery of a supply failure and the delivery of spot gas purchased to backstop such failure could be one to two days. Please refer to Exhibit J4.09.

Witness: Drew Quigley
Question: March 27, 2006
Answer: April 4, 2006
Docket: EB-2005-0520

UNION GAS LIMITED

Answer to Interrogatory from
City Of Kitchener ("CCK")

Reference: Gas Supply Plan – March 1 Inventory (D1 Tab 1 Page 3)

Issue 3.1 - Is the proposed 2007 Gas Supply Expenses Forecast appropriate?

Question:

- a) Please provide details of the methodology used to calculate "sufficient inventory [of gas] at March 1st to meet the peak day requirements for sales service and bundled direct purchase customers".*
- b) When was the March 1st control point methodology adopted by Union for planning purposes and has it been consistently used since that time?*
- c) Does March 1st continue to be the best "control point" for planning purposes relative to other dates during the winter season? Please explain fully.*
- d) What percentage of available working storage (not cushion gas) does Union target on the March 1st control point day?*
- e) How are planned inventory levels at the start of the winter season (October 1st and / or November 1st) determined and impacted by the calculation of the March 1st inventory under Union's methodology?*
- f) Has Union considered other methodologies to determine optimal or appropriate inventory levels at March 1st and other key dates during the storage cycle? If so, please provide the details of any alternate methodologies and the reasons for Union's preferred methodology.*
- g) Please provide the planned March 1 inventory for each of the past five years, including 2006, and the forecast for 2007 to 2010. For the forecast period, also provide the corresponding peak day and winter season volumes, in total, for sales service and bundled direct purchase customers.*
- h) Please provide the actual March 1 inventory for each of the past five years, including 2006.*
- i) Please explain the differences between actual and planned March 1 inventory levels for each of the past five years, including 2006, identifying any significant transactions to balance load without the use of storage.*

Witness: Drew Quigley/ Steve Poredos

Question: March 15, 2006

Answer: April 4, 2006

Docket: EB-2005-0520

j) *Given the market value of storage significantly exceeds its embedded cost, how does Union's supply model ensure a least cost outcome for in-franchise ratepayers?*

Response:

- a) Union models the storage network to meet the demands placed on it by the transmission system under design day demand conditions for all of Union's customers (in-franchise and ex-franchise). Also included in the model are the total supplies for all in-franchise and ex-franchise customers and planned March 1 inventory levels. The design day supplies and demands are then compared to ensure that the planned March 1 inventory levels are sufficient to meet planned March 1 design day requirements.
- b) The March 1st and March 31st planned control point methodology has been applied for more than 25 years, and the general principles of this approach remain consistent. The key principle is that adequate gas is planned to be available in storage to meet firm customer contract entitlements.
- c) March 1 is one of two winter control points that Union manages for planning purposes, the other being March 31. As noted in the response to part a), the March 1 control point ensures that there is sufficient planned inventory levels at March 1 to meet design day requirements (i.e., the last day that Union expects a design day weather condition of a 44 heating degree day). The March 31 control point ensures that there is sufficient planned inventory levels at March 31 to meet both late season withdrawal requirements and unplanned system operator variances. If required, the Gas Supply plan model will incorporate incremental supply to meet either, or both, of the two control points on a planned basis.
- d) Union does not target a storage "percentage" each year. Union's March 1 planned control point is a fixed number that will change from year to year, depending on the calculation that results from the method described in part (a) above.
- e) The March 1st planned control point has no effect on the November 1st planned inventory level. The planned inventory level at November 1st is determined using the aggregate excess methodology for bundled (including sales service) in-franchise customers, in addition to the contracted storage volumes for T-service, unbundled and ex-franchise customers. On November 1st, Union assumes that all customers have filled their storage allocation and the only unfilled space is system integrity space that is left empty to manage late season injections.
- f) Union's experience is that the current methodology works well and continues to represent the key winter control points needed to operate the system as described in part (a) above.

Witness: Drew Quigley/ Steve Poredos
Question: March 15, 2006
Answer: April 4, 2006
Docket: EB-2005-0520

g) The table below provides the forecast information requested. The historical inventory information is included in the response to part (h) of this response.

	<u>Planned</u> March 1 <u>Inventory</u> (TJ)	<u>Dawn</u> Sales/DP <u>Design Day *</u> (TJ/d)	<u>Winter</u> <u>Season</u> (TJ)
March 1, 2010	35,905	-	163,512
March 1, 2009	35,905	-	163,512
March 1, 2008	35,915	1,616	163,634
March 1, 2007	34,289	1,608	163,919

* Forecast design day only available for 2007 and 2008.

h) & i)

The table below summarizes the information requested. Variances between planned and actual March 1st inventories occur for a variety of reasons with weather being the primary factor. Union has met its firm customer contract obligations through a combination of storage and incremental supply purchases.

<u>Date</u>	<u>Actual Working</u> <u>Inventory (TJ) @</u> <u>37.9 GJ/10³ m³</u>	<u>March 1 Planned</u> <u>Control Point TJs</u>	<u>Significant Transactions</u> <u>to Balance Load</u>
March 1, 2002	97,900	31,500	
March 1, 2003	19,800	31,899	Feb 03 - 5,200 TJs Spot Mar 03 - 9,500 TJs Spot
March 1, 2004	46,200	33,606	Jan 04 - 4,000 TJs Spot Feb 04 - 5,400 TJs Spot
March 1, 2005	60,030	35,600	
March 1, 2006	82,520	31,813	

j) The market value of storage plays no role in the aggregate excess storage calculation. Storage allocations are made on the basis of physical need derived from the demand forecast.

Witness: Drew Quigley/ Steve Poredos
 Question: March 15, 2006
 Answer: April 4, 2006
 Docket: EB-2005-0520

UNION GAS LIMITED

Answer to Interrogatory from
City Of Kitchener ("CCK")

Reference: *Gas Supply Plan – March 1 Inventory (D1 Tab 1 Page 3*

Issue 3.1 - Is the proposed 2007 Gas Supply Expenses Forecast appropriate?

Question:

j) Given the market value of storage significantly exceeds its embedded cost, how does Union's supply model ensure a least cost outcome for in-franchise ratepayers?

Response:

j) As described at Exhibit D1, Tab 1 pages 2-4, Union's Gas Supply Plan is completed using the SENDOUT modeling software application. As indicated, the total in-franchise storage allocation which is calculated using the Board approved aggregate excess methodology, is an input assumption in the supply model. Storage allocations are made on the basis of physical need derived from the demand forecast. The market value of storage plays no role in the aggregate excess storage calculation and is not considered in the supply modelling process.

Witness: Drew Quigley/ Steve Poredos

Question: March 15, 2006

Answer: April 4, 2006

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Supplemental: April 28, 2006

UNION GAS LIMITED

Answer to Interrogatory from
City Of Kitchener ("CCK")

Reference: *Gas Supply Plan – Contingency Space (D1 Tab 1 Pages 3 and 4)*

Issue 3.1 - Is the proposed 2007 Gas Supply Expenses Forecast appropriate?

Issue 5.6 - (to be determined) - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

Question:

- a) *Union states that "...system integrity space...is held solely for the purpose of balancing unplanned demand or supply variances that may occur throughout each year." Has Union drawn on system integrity space to balance unplanned variances in any of the past five years, including 2006 to date, and, if so, how much and for what reason(s)?*
- b) *If all bundled customers migrated to semi-unbundled or fully unbundled service, how would the various components of the 9.7 PJ of contingency space be used and their cost allocated by rate class?*

Response:

- a) Union manages the storage operations in total and cannot quantify the specific utilization of the system integrity space on an actual basis. However, over the last 6 years, the lowest level of system integrity space available at the end of the injection season was 3.6 PJ. System integrity space is required to allow Union to fulfill its role and obligations as a distribution, storage and transportation services provider. System integrity space allows Union to manage weather variations, backstop supply failures and maintain the operational integrity of the distribution, storage and transmission system.
- b) As outlined in RP-1999-0017, Exhibit B, Tab 1, pages 64 to 65 the system integrity space requirement was quantified assuming that all customers elect unbundled storage service and as such the components of system integrity space would be utilized as described on page 64 of the referenced evidence.

If all bundled customers migrated to semi-unbundled or fully unbundled service, the amount of system integrity costs allocated to individual rate classes would change because the composition of the rate classes would change. The underlying cost allocation methods would not change.

Witness: Drew Quigley / Steve Poredos/ Michael Broeders

Question: March 15, 2006

Answer: April 4, 2006

Docket: EB-2005-0520

UNION GAS LIMITED

Answer to Interrogatory from
City Of Kitchener ("CCK")

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Issue 3.1 - Is the proposed 2007 Gas Supply Expenses Forecast appropriate?

Issue 5.6 - (to be determined) - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

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Response:

- a) Union manages the storage operations in total and cannot quantify the specific utilization of the system integrity space on an actual basis. However, over the last 6 years, the lowest level of system integrity space available at the end of the injection season was 3.6 PJ. System integrity space is required to allow Union to fulfill its role and obligations as a distribution, storage and transportation services provider. System integrity space allows Union to manage weather variations, backstop supply failures and maintain the operational integrity of the distribution, storage and transmission system.
- b) As outlined in RP-1999-0017, Exhibit B, Tab 1, pages 64 to 65 the system integrity space requirement was quantified assuming that all customers elect unbundled storage service and as such the components of system integrity space would be utilized as described on page 64 of the referenced evidence. Please also refer to Exhibit J6.28.

If all bundled customers migrated to semi-unbundled or fully unbundled service, the amount of system integrity costs allocated to individual rate classes would change

Witness: Drew Quigley / Steve Poredos/ Michael Broeders

Question: March 15, 2006

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Supplemental: April 28, 2006

because the composition of the rate classes would change. The underlying cost allocation methods would not change.

Witness: Drew Quigley / Steve Poredos/ Michael Broeders
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UNION GAS LIMITED

Answer to Interrogatory from
City Of Kitchener("CCK")

Reference: *System Integrity Allocation (Exhibit G3)*

Issue 5.6 - (To be determined) - Is the methodology used to functionalize, classify and allocate system integrity space appropriate?

Question:

- a) *Please reproduce Exhibit J31.G2.57 from EBRO 499.*
- b) *Please confirm that the City of Kitchener is represented as customer "A" and that EBRO 499 was the last rate case in which Kitchener was a member of the M9 class.*
- c) *In Exhibit J31.G2.57 of EBRO 499, Union states that the space allocation to the M9 class is made up of:*
- *86,773 10 3 m3 calculated on the aggregate excess method;*
 - *14,748 10 3 m3 held by Union as contingency space;*
- i) *Does the term "contingency space" as used in EBRO 499 have the same meaning as "system integrity space" in this case?*
- ii) *Of the 14,748 10 3 m3 of contingency space or system integrity space, what amount was attributable to service to the City of Kitchener for:*
1. *managing weather variances;*
 2. *back stopping supply failures;*
 3. *operational integrity.*
- d) *Exhibit G3 Tab 5 Schedule 26 Page 5 shows that no temperature risk space has been allocated to M9 or T3. When did Union eliminate the allocation of temperature risk space to M9 and why? If the removal has received Board approval, please provide the reference.*
- e) *Exhibit G3 Tab 5 Schedule 26 Page 5 shows that the allocation to T3 for supply backstopping is 0% whereas the allocation for temperature risk is left blank. Please explain the difference.*
- f) *Does Union retain any obligation as system operator to provide supply backstopping in the event of a supply failure to Kitchener, or is Kitchener fully responsible for backstopping such failures?*

Witness: Michael Broeders / Bruce Rogers / Drew Quigley / Steve Poredos

Question: March 15, 2006

Answer: April 4, 2006

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- g) *Please confirm that no load balancing costs are included in the costs for system integrity space.*
-

Response:

- a) Please see attached.
- b) Confirmed.
- c) i) Yes.
ii) A specific allocation for Kitchener related to managing weather variances, backstopping supply failures, and operational integrity was not performed in E.B.R.O. 499.
- d) System integrity space related to temperature risk has never been allocated to M9 or T3. This methodology has remained unchanged since the introduction of a detailed system integrity allocation in the RP-1999-0017 proceeding.
- e) The T3 rate class is not allocated any charges for supply backstopping or for temperature risk. Showing 0% or leaving it blank has the same result.
- f) Union is not obligated to backstop a supply failure by Kitchener. Under such circumstances, Kitchener will be responsible for the charges for failure to deliver and for the costs of the backstopping.

Subject to availability, Kitchener can contract for backstop gas under the R1 Rate Schedule.

- g) No gas supply related load balancing costs are included in the costs for system integrity space.

Witness: Michael Broeders / Bruce Rogers / Drew Quigley / Steve Poredos
Question: March 15, 2006
Answer: April 4, 2006
Docket: EB-2005-0520

UNION GAS LIMITED

Answer to Interrogatory from
Consumers Council of Canada (“CCC”)

Reference: D1/T1/p3

Issue 3.1 - Is the proposed 2007 Gas Supply Expenses Forecast Appropriate?

Question:

Please provide evidence to support the need for the 9.7 PJs of system integrity space. What analysis has Union undertaken recently to assess the appropriate level of system integrity space? Please provide copies of any such analysis. What are the potential cost implications of increasing or reducing the level of system integrity space in the 2007 test year?

Response:

System integrity storage space (or contingency space) allows Union to manage daily and seasonal weather variations, backstop supply failures and maintain operational integrity of its distribution, storage and transmission system. Union's system integrity storage space requirement is comprised of the following components:

- 3.3 Bcf - manage weather variances for non-daily metered customers
- 1.7 Bcf - backstop supply failures
- 4.1 Bcf - operational integrity

Total – 9.1 Bcf (9.7 PJs)

Included in the 9.1 Bcf is 0.6 Bcf of system integrity space attributed to the North (0.3 Bcf to manage weather variances and 0.3 Bcf to backstop supply failures). Please also refer to Exhibit N19.3 (attached) from the RP-2003-0063 proceeding.

System integrity storage space supports the integrity of Union's system as a whole. It provides the reserve capacity and operational balancing necessary to manage all of the services that Union offers and ensures the integrity of Union's storage, transmission and distribution systems.

Witness: Drew Quigley/ Steve Poredos

Question: March 10, 2006

Answer: April 4, 2006

Docket: EB-2005-0520

Corrected: April 28, 2006

In the RP-2002-0130 proceeding, Union undertook a review and filed evidence confirming the need for the 3.3 Bcf portion of system integrity space required to manage weather variations.

Union continues to believe that the current level of system integrity space is appropriate. If Union were directed to forecast a change in its system integrity space, there could be cost and risk implications associated with such a change. For example, if the amount of system integrity space were to be arbitrarily reduced, this space could be sold ex-franchise. In this scenario, based on current regulatory approach and market conditions, in-franchise delivery rates would be reduced slightly. This would be offset by a disproportionately larger increase in the risk of a system integrity failure.

An arbitrary system integrity space increase would have the opposite effect.

Witness: Drew Quigley/ Steve Poredos
Question: March 10, 2006
Answer: April 4, 2006
Docket: EB-2005-0520
Corrected: April 28, 2006

UNION GAS LIMITED

Undertaking of Mr. McMahon
To Mr. Janigan

Please complement interrogatory J34.154, to provide a table with the cost recovered by each class for system-integrity costs and the principles associated with the allocation to each rate class.

Please refer to Exhibit J18.209 for the allocation of system integrity components and system integrity costs to rate classes based on the originally filed evidence. This same allocation is also found at Exhibit G3, Tab 2, Schedule 11, updated (October, 2003) reflecting the updated forecast.

System integrity related costs are not budgeted by contingency component.

The temperature risk component (3.0 Bcf) is required to manage daily weather-related variances. The allocation of this contingency component to the M2 Residential and M2 Commercial/Industrial customers is based on forecasted winter volumes.

The supply backstopping component (1.4 Bcf) is required for all in-franchise markets and is allocated to rate classes based on aggregate excess.

The linepack component (1.6 Bcf) is used to manage daily linepack variations on the Dawn-Trafalgar Transmission system for all storage customers. This contingency component is allocated in proportion to the Dawn-Trafalgar Transmission system usage.

Other operational integrity storage (2.5 Bcf) is used to manage variances related to unaccounted for gas, operating balancing agreements with interconnecting pipelines, and storage hysteresis. These contingency components are allocated to rate classes in proportion to volumes and storage space.

Once the system integrity space has been allocated, the percentage allocation per rate class is used to allocate the majority (88%) of net plant classified to system integrity. The remaining net plant is either directly assigned to Northern rate classes (8%) or assigned to rate classes using an indirect allocation factor based on overall plant allocation (4%).

The percentage allocation of system integrity space per rate class is also used to allocate the majority of working capital, accumulated deferred taxes and O&M expenses that are not directly assigned to Northern rate classes. All other expenses are allocated to rate classes using allocation factors that are based on overall expense allocations.

Witness: Pat McMahon
Question: November 3, 2003
Answer: November 10, 2003
Docket: RP-2003-0063

Witness: Pat McMahon
Question: November 3, 2003
Answer: November 10, 2003
Docket: RP-2003-0063

UNION GAS LIMITED

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

Reference: D1/T1/p.3

Issue 3.1 - Is the proposed 2007 Gas Supply Expenses Forecast appropriate?

Question:

At Exhibit D1, Tab 1, page 3, Union refers to the 9.7 PJs of System Integrity Space to which the parties agreed in the RP-1999-0017 ADR Settlement Agreement. With respect to this item, please provide the following information:

- a) List all of the costs associated with maintaining 9.7 PJs of System Integrity Space filled with 6.0 PJs of molecules, with the remaining 3.7 PJs left empty;*
- b) What use was made of this space and these molecules in each of the years 2004, 2005 and 2006 to date?*
- c) What revenues were derived from Union's use of this space and molecules in each of the years 2004, 2005 and 2006 to date and how are any revenues derived by Union for the use of this space and the molecules currently accounted for?*

Response:

- a) Total costs related to maintaining system integrity space, are \$12.7 million. Please refer to Exhibit G3, Tab 5, Schedule 10 and Exhibit J4.01.
- b) Please refer to Exhibit J5.04 a).
- c) Union does not sell integrity space that is required to manage late season injection variances. As noted in Exhibit J5.04, part a), system integrity space over the last 6 years has been available as planned.

Witness: Steve Poredos / Drew Quigley / Michael Broeders
Question: March 15, 2006
Answer: April 4, 2006
Docket: EB-2005-0520

UNION GAS LIMITED

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

Reference: D1/T1/pages 3 & 4

Issue 3.1 - Is the proposed 2007 Gas Supply Expenses Forecast appropriate? (D1/T1, D3/T2/S1)

Question:

- a) *Given the unusually warm temperatures in January, 2006, what measures, if any, did Union take to reduce supply?*
 - b) *How much of the 3.7 PJs of system integrity space that was left empty was used as a result of the warm January?*
-

Response:

- a) Union did not reduce supply during the 2005/2006 winter months as a result of warm temperatures in January 2006. However, Union continues to review its overall supply position and will manage any excess supply during the 2006 summer months.
- b) The 3.7 PJs of integrity space may be required to manage warmer weather at the end of the injection season. As such, the entire 3.7 PJs of system integrity space was empty in January, 2006. Union's inventory levels in any winter month historically peak around November 1st. At January, 2006, they are not at their fullest point since some consumption has taken place during the November and December period.

Witness: Patti Piett / Steve Poredos
Question: March 14, 2006
Answer: April 4, 2006
Docket: EB-2005-0520