

EB 2005-0551

ONTARIO ENERGY BOARD

NGEIR

**ARGUMENT OF THE
CITY OF KITCHENER**

ON

ISSUE II (4)

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TABLE OF CONTENTS

	<u>PAGE</u>
INTRODUCTION	1
A RATIONALE FOR A CONSTRAINING ALLOCATION	2
B PRIMARY OBJECTIVE OF A STORAGE ALLOCATION METHOD IS TO MEET THE NEEDS OF ONTARIO ENERGY CUSTOMERS	3
C FACTORS TO BE CONSIDERED IN DEVELOPING THE BOARD'S APPROACH TO STORAGE ALLOCATION	8
1. Recognition that the Primary Use of Storage Is Load Balancing	8
2. Give Primacy to the Needs of Customers over The "Premium Considerations" of Storage Operators	8
3. Recognize that a Single Rigid Formula will not be Appropriate for all Customers	9
4. Enable Embedded Utilities to Meet Late Season Deliverability Requirements	10
5. Ensure that Allocations are: a. not reduced below the implied level used as sales customers; and b. take into account a customer's changing needs	11
6. Union's Gas Supply Plan and Accompanying Storage Reserves should extend to the March 31 Control Point	12
7. Reflect a Least Cost Approach	12
D. Aggregate Excess and its Role in Union's Gas Supply Plan	12
-Union's Gas Supply Plan	13
-Aggregate Excess in the Gas Supply Plan	14

E.	Aggregate Excess Method is Seriously Flawed	14
1.	Disconnect between Aggregate Excess and the Board's Standard of Service established by the Control Points	15
2.	Aggregate Excess does not and cannot apply to all In-Franchise Customers	15
3.	Aggregate Excess does not meet the Load Balancing Requirements of Heat Sensitive Customers	16
4.	Aggregate Excess does not Yield a Least Cost Supply Plan	17
5.	Aggregate Excess is not Consistent with the Principles of EBRO 410, 411 and 412	20
6.	Grandfathering and the 5% Change in CD Mechanism do not Cure the Defects of the Aggregate Excess Method	21
F.	Effect of Board Approval of Aggregate Excess in RP-1999-0017	22
G.	Appropriate Approach to Storage Allocation	22
H.	Conclusion	24

Ontario Energy Board
EB-2005-0551 – NGIER
Written Argument of the City of Kitchener
Issue II (4) – Storage Allocation

Introduction

This written argument is submitted pursuant to the Board's Procedural Order No. 9 dated July 13, 2006 and the Board's verbal direction on July 20, 2006 at page 2 of Volume 14 of the transcript. This argument deals solely with the discrete issue of an appropriate storage allocation method under sub-Issue II (4) discussed in the Board's Procedural Order No. 2 dated February 28, 2006, as follows:

"...specifically, should there be a constraining allocation of physical storage facilities to some types of customers based on measures such as aggregate excess or whether customers are considered "in-franchise" or "ex-franchise"?"

As an embedded municipal utility, Kitchener has significant experience in managing the use of storage in meeting the needs of its customers and the utility in the public interest. Kitchener presents the Board with its submissions with the belief that its experience can assist the Board in ensuring the effective regulation of storage in Ontario in the public interest.

The basis of Kitchener's argument on Issue II (4) is the assumption that it is relevant; that is, that the Board will determine to continue its regulation of underground storage and determine "... that some customers should pay for storage services at cost and others pay for storage services at market". Accordingly, this argument leads to a submission as to the allocation approach for all cost based customers.

Outline of Argument

After addressing the rationale for a constraining allocation in Part A, the argument asserts, in Part B, that the primary objective of any allocation method approved by the Board should be that of meeting the storage needs of Ontario energy customers. In Part C, the factors which Kitchener submits the Board should take into account in its decision are outlined.

In Parts D and E, the aggregate excess method proposed by Union is described and its flaws are discussed.

In Part F, the argument deals with the weight the Board should give to the fact that the aggregate excess approach was approved when the Board approved the ADR settlement in RP-1999-0017, and in Part G, Kitchener presents its submissions as to the appropriate method the Board should approve for all cost based customers, including the gas utility of the City of Kitchener.

A. Rationale for a Constraining Allocation

Kitchener submits that there are 3 basic reasons why the Board should establish constraints respecting the allocation of physical storage. First, as Kitchener will argue under the balance of Issue II, storage should be provided to customers in Ontario at cost and to customers outside of Ontario at market prices. Thus, in Kitchener's submission there should be a line drawn between these two types of customers. Secondly, the evidence in these proceedings appears incontrovertible that underground storage in Ontario is a valuable resource. No party, including Kitchener, has suggested otherwise. Accordingly, it is necessary to ensure that the allocation of storage to Ontario customers is constrained by their legitimate requirements. Thirdly, a Board defined approach to storage allocation to Ontario customers is necessary to balance the incentive of Union, as a shareholder owned corporation, to maximize its profits by maximizing the availability of

storage for sale at market prices. In Kitchener's respectful view, this incentive can lead to a utility planning for average winters leaving its customers at risk for differences.

B. The Primary Objective of a Storage Allocation Method is to Meet the Needs of Ontario Energy Customers

The prime objective of any constraining method of allocating gas storage facilities should be to ensure that the legitimate needs of Ontario energy customers are met. In our view, there are several compelling reasons for the Board to give priority to the storage needs of Ontario customers.

The principle that regulation of the natural gas industry in Ontario should be directed to furthering the Ontario public interest appears as a cornerstone of many Board decisions and reports dealing with matters affecting the general public such as the NGEIR. An early example is the Report of the Committee on Oil and Gas Resources ("Langford Report") which was written in the early 1960's. Kitchener submits that the main recommendations of the Langford Report on underground storage remain relevant today and for the foreseeable future. Of particular relevance to the NGEIR is recommendation 4 at page 59 of the Report which states:

"Storage rights in Ontario should be used primarily for the people of Ontario.

It has been an accepted practice in many areas of Canada that the energy resources developed within a province should be reserved primarily for the people of that province and the export of energy is limited to that which is excess of the foreseeable needs of the province. The same principle should apply to use of underground storage reservoirs in Ontario. Although they in themselves do not produce any energy, they are an indispensable part of the natural gas industry. The Committee recommends that the gas storage areas of Ontario should be developed and used primarily for the benefit of the people of Ontario; secondarily for the people of other provinces of Canada; and lastly for others".

The Langford Report has recently been referred to with approval by the Board in its decision dated February 4, 1998 in EBO-201/EBLO-263 in the matter of an application by CanEnerco Limited to inject gas into, store gas in and remove gas from, the Chatham 7-17-XII Pool in Chatham and Camden Townships. The Board stated at paragraph 5.4.11:

"The rights granted under section 21 carry certain public interest obligations. Geological formations suitable for storage of gas are a provincial resource and require protection and assurance that they are used in the public interest. The recommendations in the Langford Report and the Government's policy pronouncements endorsing these recommendations are, in the Board's view, valid today. The Board is not aware of any other Government policies or Board practices in the intervening period that would supersede the policies enunciated at that time or render them inappropriate for the purpose of the present case."
[emphasis added]

In its Report on the Ontario Energy Board Natural Gas Forum dated March 30, 2005, at page 37 the Board noted that in 1962 the Ontario government adopted the findings and recommendations of the Langford Report on underground natural gas storage, and stated at the top of page 38:

"Since that time underground natural gas storage has been accorded the status of a provincial asset and the Board has regulated it accordingly."

The principle that regulation of storage should be directed to furthering the Ontario public interest is also based on the premise that development of the facilities for gas distribution in Ontario, including storage, require such substantial capital investment that monopolies must be granted by the public in order to avoid investment in competing facilities and to ensure a reliable return. Regulation in the public interest is therefore the *quid pro quo* of the monopoly grant.

This principle has been stated, as an example, in the decision in EBRO 410-I, 411-I, and 412-I, dated December 12, 1986 dealing with the Board's jurisdiction to prohibit a proposal by an Ontario customer to by-pass the local distribution

company and connect directly with TCPL. In that decision, at page 61, the Board lists 6 prior hearings which had addressed the importance of the public interest and, at page 53 of the decision, it gives this succinct description:

"The Ontario public interest underlies not only the rationale for regulation, but is an integral part of the OEB's current mandate.

The Public Utility Concept

4.2 Public utility regulations have been premised on the notion that, because of the substantial capital investment required to build, maintain and operate the natural gas storage, transmission and distribution systems in Ontario, it is a less expensive and more efficient use of society's economic resources to allow only one company to operate within a defined area."

A subsequent statement of the principle is contained in the decision in EBRO 410-II, 411-II, and 412-II, dated March 23, 1987 (Volume II, Appendix G; also found at page 9 of Exhibit J-12.2 filed in these proceedings). It states:

"Regulation, in effect, involves a social contract. The Board accepted this social contract in its Report respecting the Union/Unicorp matter (EBRLG 28). According to this social contract theory, the regulated firm agrees to charge just and reasonable prices and to forego windfall profits. The utility further agrees to accept an obligation to serve all customers who want service, providing that it is economically viable and in the public interest to do so. In return, the regulatory authority agrees to set rates that permit the utility the opportunity to earn a fair return. The regulator, in exercising its jurisdiction with respect to the public interest, must balance the competing interests of the customer and shareholder." [emphasis added]

It is submitted that this regulatory construct applies fully to the storage function. Historically gas storage in Ontario was developed on an integrated basis with the rational expansion of the distribution system of the major gas utilities under long-term municipal franchise agreements and Board approvals. These agreements continue to grant monopoly rights to the major utilities in exchange for the obligation to serve customers within the franchise territory if economically feasible and in the public interest. The scheme for granting and renewing municipal franchises established by the *Municipal Franchises Act* conditions the

right to serve, and to continue service, on the requirements of "public convenience and necessity" (section 10).

It is submitted that this regulatory construct has allowed and continues to allow the Ontario utilities to significantly grow their integrated business in a stable and low risk business atmosphere, financed by rates established by the Board and paid for by Ontario customers. Superior access to the resources needed to conduct their business, such as access to customers and physical storage, has created a sustainable competitive advantage for the major utilities in Ontario (Vol. 9, p.76). Favourable local geology in Ontario allowed many robust, economic and reliable underground storage pools to be developed and operated by the major utilities, particularly Union. Kitchener submits that the utilities therefore have an ongoing responsibility as custodians (not owners) of that geology to "serve Ontario first" and to not exploit their competitive advantage in the interests of their shareholders. Accordingly, it is submitted that the Board's regulation of storage emerging from this case should continue to observe, as a primary objective, the requirements of the Ontario energy customer.

Mandate Under the *Ontario Energy Board Act*

It is submitted that the primacy of the Ontario public interest in storage regulation is confirmed by the Board's mandate in s.2(2) of the *Ontario Energy Board Act* which provides:

"The Board, in carrying out its responsibilities under this or any other Act in relation to gas, shall be guided by the following objectives:

2. To protect the interests of consumers with respect to prices and the reliability and quality of gas service." [emphasis added]

Storage Provides a Physical Hedge against Price Volatility

It is submitted that the importance of giving primacy to the interests of Ontario customers is heightened by current and expected on-going conditions in gas markets across North America which are affecting the relationship between

supply and demand and increasingly exposing customers in Ontario to price volatility due to winter and summer demand peaks and transportation constraints. As an observed phenomenon in gas markets, Kitchener submits that price volatility has gained momentum and will likely continue as the gas bubble formed prior to deregulation has burst. Storage is a physical hedge allowing natural gas consumers to plan off-peak purchases minimizing their exposure to price run-ups resulting from the coincident peaks of winter demand.

Evidence has been given in these proceedings that highlight the role of gas storage in mitigating seasonal and intra-seasonal gas price volatility (e.g. Exhibit K 12.9). In these circumstances, particularly, it is submitted that Ontario customers will legitimately look to the Board to protect their interests by providing storage allocations at cost that allows them to prudently and economically manage price volatility and reduce their load balancing costs. To be frank, and given the particular circumstances of these proceedings, it is clearly not in the interests of Ontario or of its gas customers to limit the level of their storage allocations in order to increase the amount of storage available for sale at market rates to out of Ontario users. While the premiums returned to customers in rates can reduce delivery rates by pennies per GJ, the exposure to customer's seasonal and daily price volatility is measured in dollars per GJ.

Financial Impact on Kitchener

In the event that the Board agrees that the provision of cost-based storage to all Ontario customers (including those customers such as Enbridge Gas which currently pays market base rates to Union for storage because it is "ex-franchise"), Kitchener accepts that its share of the market premium will be reduced accordingly. Mr. Quinn testified that the overall negative impact to Kitchener would be in the neighbourhood of \$100,000 to \$200,000 annually (Volume 12, p.146). However, this reduction in delivery rates is significantly less

than the customer's cost of managing volatility in commodity purchases over the course of the year.

Kitchener submits that the proposal to extend the provision of cost based storage to all Ontario customers is inextricably linked to the principle that storage regulation should be in the Ontario public interest. This consideration, it is submitted, completely overrides the financial cost to Kitchener and other existing customers within Union's franchise.

C. Factors to be Considered in Developing the Board's Approach to Storage Allocation.

Kitchener submits that the following seven factors should be taken into account in the Board's determination of its approach to storage allocation:

1. Recognition that the Primary Use of Storage is Load Balancing

The Board has repeatedly recognized (see EBRO 410, 411, and 412 dated March 23, 1987 at p.3/80) that the primary use of physical storage in Ontario as "market area" storage is to balance the widely varying seasonal demands of customers and enable them to receive stable supplies at a high load factor from long-haul pipelines connected to upstream production basins. The allocation approach approved by the Board in this case therefore should ensure that the load balancing needs of customers are met.

2. Give Primacy to the Needs of Customers over the "Premium Considerations" of Storage Operators

The Board's approach to storage allocation should not subvert Ontario customer needs in favor of the "premium considerations" of the utility storage operators. Priority should be given to the need of customers to economically manage both load balancing costs and the risks of volatility. The constraining method should

not be an opportunistic mechanism for the utility storage operator to enhance its premium revenues at the expense of Ontario customer needs.

The utilities, in particular, Union Gas, have suggested in these proceedings that the premium value place on storage by the market relative to its regulated cost in Ontario is a function of "a point in time" or an interim condition (Vol. 2, p. 126). Kitchener submits the evidence in these proceedings and the pricing present in transparent and liquid forward markets for gas such as NYMEX future contracts strongly suggest otherwise, i.e. the value of gas storage will likely only increase as time goes by (Exhibit B, Tab 3, UGL Undertaking K 2.3). This underscores the need for a storage allocation approach in Ontario that puts the needs of Ontario customers first and secondarily allows the custodian utility to maximize the premium.

3. Recognize that a Single Rigid Formula will not be Appropriate for all Customers

It is submitted that Board's approach to storage allocation should recognize a need to provide sufficient flexibility to accommodate customers such as Kitchener, NRG or Six Nations which are required to meet the firm demand of heat sensitive customers as well as end-use customers which can control their consumption because they are not affected by weather. The Board recognized the need for flexibility respecting storage allocation in its decision in RP-1999-0017 in the following excerpts from paragraphs 6.31 and 6.33:

6.31 "Furthermore, it is the Board's preference that flexibility be incorporated into any unbundling regime so as to correct any undesirable practices or outcomes observed in the future." [emphasis added]

6.33 "The Board agrees with the many parties who indicated that Union's proposal should be viewed as a continued evolution of new services in support of a competitive market in natural gas commodity and other non-monopoly services, should not be considered to be "set in stone", and that there should be some flexibility surrounding it." [emphasis added]

Clearly, in the Board's view, a degree of flexibility to unbundling is in the public interest. An allocation of physical storage is a necessary component of unbundling to enable economic choice for customers. It follows also that a flexible approach to storage allocation is appropriate and in the public interest. It is submitted that a single method such as Union's proposed aggregate/excess which is imposed alike on end-use factories and embedded distribution utilities, is simply incapable of meeting the diverse needs of Ontario customers. In fact, the ADR agreement in this proceeding recognized that using aggregate excess for power generators is not sufficient. It is clear from Union's previously negotiated allocations to power generators (customers AH, AI and AJ listed in UGL Undertaking 45, see table on page 57 of Exhibit J 12.2) confirmed as power generators in Undertaking K 12.4, that aggregate excess does not provide for the storage needs of generators. Having one mechanistic formula, in spite of customer need and circumstances, in essence is discriminatory; equality is not equity.

4. Enable Embedded Utilities to Meet Late Season Deliverability Requirement

For an embedded gas distribution utility such as Kitchener with an obligation to serve temperature sensitive loads, the Board's approach to storage allocation should allow Kitchener to meet the similar standard respecting security and quality of service that the Board has established for Union. That is, the allocation of storage to an embedded distributor must provide for the possibility of a colder than normal winter and provide protection for a cold snap beyond March 31. The Board has approved Union's reserve gas on March 31 (over and above a reserve for system integrity) as prudent and it would be equitable for embedded utilities to be afforded similar prudence in meeting their customers' needs.

Kitchener provided evidence of that need (Vol. 12, pp. 176-7) in describing April 7 and 8, 2003. On consecutive days, Kitchener exceeded its maximum withdrawal capability and then provided an intraday nomination the second day

as insufficient gas was available in storage for an early April cold snap. It should be noted that while Union uses the reserve on March 31 of 5.6bcf for operational needs daily variances of 5° Celsius colder than forecast only requires an incremental withdrawal from storage of 198,665 GJ s (UGL Undertaking K 12.2). This would suggest that Union could error in its forecast of temperature by 5° Celsius for 28 straight days before the 5.6bcf reserve is depleted. Accordingly, most of Union's reserve is available to meet an early April cold snap. A reserve, comparable to Union's (over and above the aggregate excess calculation of winter withdrawals) would provide Kitchener with a comparable ability to manage for this expected occurrence.

5. Ensure that Allocations are:

- a. not reduced below the implied level used as sales customers and;
- b. take into account a customer's changing needs

The Board's approach should take into account the "keep whole" principles" established in the EBRO 410, 411 and 412 series of decisions which provided for the transition from sales to direct purchase gas services. In the decision dated March 23, 1987 the Board stated at paragraph 3.252:

"The Board finds that sales customers who change to T-service should be allowed to retain their existing storage entitlement."

In the decision dated May 27, 1988, the Board stated at paragraph 6.16:

"sales customers changing to T-service should be able to rely, with a reasonable degree of assurance, on the calculated entitlement as reflecting the implied storage which they used as sales customers, including any seasonal factors. From the evidence deduced at this hearing, it appears that methodology proposed by Union is open to further refinement, which would take account also of a customer's changing needs".

It is submitted that the lesson to be taken from these earlier decisions on storage allocation is that the Board's approach should not result in a sudden or

significant reduction in a customer's legacy entitlement to storage when T-service is selected.

6. Union's Gas Supply Plan and Accompanying Storage Reserves should extend to the March 31 Control Point

Union's gas supply plan and the storage reserves it requires should be sufficient to cover the period commencing November 1 and extend to furnish the storage requirements of both the March 1 and March 31 control points. Storage levels should not be planned to be exhausted on March 31. Rather, they should be sufficient to provide the reserve (as distinct from system integrity) required on March 31.

7. Reflect a Least Cost Approach

The Board's approach to storage allocation should result in an overall gas supply plan for in-franchise demand that yields a least cost result for ratepayers. Sophisticated planning tools such as SENDOUT used by utilities to optimize the mix of transportation and storage assets to meet in-franchise demand should solve for the overall allocation of cost based storage as well as for the other supply components relied upon to meet planned demand. Storage allocation to in-franchise customers should not be determined by the aggregate excess method as done by Union. As argued below, Kitchener submits that Union's approach of determining the storage component by the aggregate excess methods yields a sub-optimal cost to ratepayers.

D. Aggregate Excess and its Role in Union's Gas Supply Plan

Kitchener submits that the evidence given in this case reveal a number of serious flaws in the aggregate excess method for constraining the allocation of storage to customers. The flaws will be addressed in turn below in section E, but first it may be useful to review the method and its role in the gas supply plan.

Union's Gas Supply Plan

The plan contains the following basic features described in Exhibit X 3.1, Appendix F, and Volume 12 of the transcript:

- it is designed for service to Union's in-franchise customers for the period between November 1 and March 31 (Vol. 12, p.39)
- the optimal mix of each source of supply for the plan, excepting storage is determined on a least cost basis using the computer program SENDOUT (Vol. 12, p.81-82). The storage level for November 1 is determined by the aggregate excess approach (Vol. 12, p.82)
- the plan has two control points, March 1 and March 31 (Vol. 12, p.23). These are storage control points in that they represent the level of storage inventory at each control point (Vol. 12, p.38)
- the March 1 control point requires sufficient inventory to meet demand day conditions on that date (Vol. 12, p.23 and 38)
- the March 31 control point requires an inventory level or reserve of 5.6bcf. It provides protection to April 15 (Vol. 12, p.39). It is used to meet two requirements. One is to provide "protection against variations on the operational side" (Vol. 12, p.39), which Mr. Poredos later described as the need to adjust for daily variations in temperature for the M2 class (Vol. 12, p.42)d. For this purpose Union has allocated 3.3bcf of system integrity space as described in Exhibit J 6.28 from EB-2005-0520 (Exhibit J 12.2, p84)
- the second use is to provide protection against a cold snap in the first two weeks of April (Vol. 12, p.39)
- for the first use Union relies on the balance of system integrity inventory remaining on March 31. For the second purpose Union does not use system integrity storage. Nor does it use any planned storage inventory injected prior to November 1. It purchases gas during the month of March (Vol. 12, p.41, 42, 43)

Aggregate Excess in the Gas Supply Plan

This method determines the level of storage inventory on November 1 needed to service in-franchise customers during a normal winter to March 31. Its salient features are

- on March 31 the plan level of storage is reduced to zero (Vol. 12, p.40)
- aggregate excess does not protect service in a colder than normal winter or in a cold snap in April (Vol. 12, p.124)
- Union has a reserve on March 31 (Vol. 12, p.123) (as the March 31 control point requires), but to achieve it, it is obliged to purchase gas for delivery in March notwithstanding the admission that, in March "...you don't want to be stuck with having not to be able to buy from anyone, because no one has inventory at that point in time" (Vol. 12, p.40). Union has also acknowledged that gas purchased in the summer, stored and used in March is less costly than gas purchased in March (Vol. 12, p.117)

E. The Aggregate Excess Method is Seriously Flawed

Kitchener submits that the evidence given in this case reveals a number of serious flaws in the aggregate excess method for constraining the allocation of storage to customers. As noted above storage under the aggregate excess method does not provide inventory for the March 31 control point or for a colder than normal winter. Secondly, it cannot provide the storage needs for many customers as shown by the large number on UGL Undertaking 45 which receive an allocation which differs from aggregate excess. Thirdly, it is particularly incapable of meeting the storage needs of embedded utilities which must serve heat sensitive customers. Fourthly, it does not provide a least cost supply plan. Fifthly, it deviates from the "make whole" principles of the EBRO 410, 411 and 412 series of Board decisions. Finally, it cannot be said that the grandfathering and 5% mechanism work as a cure of the defects in the method or that Union even applies these mechanisms to many customers. Each will be addressed in turn.

1. The Disconnect between Aggregate Excess and the Board's Standard of Service established by the Control Points

As noted, the two March control points provide protection against a colder than normal winter and against a cold snap in the first two weeks of April. However Union's gas supply plan and the aggregate excess level of storage assume normal winter and provide no protection for either contingency. Union recognizes the obligation to meet both control points, but relies on winter purchases to do so, notwithstanding the fact that gas purchased in the summer, stored and used in March is less costly than gas purchased in March.

2. Aggregate Excess does not and cannot apply to all In-Franchise Customers

It is submitted that the most telling Exhibit illustrating this point is UGL Undertaking 45 at p.57 of Exhibit J 12.2. It lists 45 customers, out of the 78 customers in the T1 and T3 classes, which have a storage allocation deviating from aggregate excess. In UGL Undertaking 45, Union has attempted to explain the deviations by two features of its proposal. The first is grandfathering and the second is the $\pm 5\%$ change in CD described in Exhibit K12.1. The latter is a mechanism that should operate to bring the allocation into line with the aggregate excess method whenever there is a 5% change in the customer's CD (Vol. 12, p.108). It has not done so. It is submitted by Union that the 5% rule has been in effect since the RP-1999-0017 ADR agreement of June 7, 2000. Notwithstanding the five annual customer contract reviews since June 7, 2000, over 50% of the T1 and T3 classes continue to receive storage unrelated to the aggregate excess method.

Undertaking 45 also shows that customers T, Z and AH should be receiving no storage under the aggregate excess method. Accordingly for these customers aggregate excess does not even approximate their storage requirements and this

is true whether or not they were grandfathered (customers T, Z and AH) or whether or not the CD has changed (customer Z).

Similarly, it cannot be said that the aggregate excess method approximates the storage requirements of customer A (receiving 3 times aggregate excess), or B (receiving 4 times aggregate excess), or C (receiving 4 times aggregate excess), or customer D (receiving 10 times aggregate excess) to name only a few of those listed. It is submitted that the substantial number of deviations shown in Undertaking 45 reveal a recognition that aggregate excess simply cannot meet the needs of many customers. It shows, in other words, that the aggregate excess method is not workable.

Moreover, in its response to UGL Undertaking K 12.4, Union notes that the "long-term storage requirements" of several contract customers with the largest positive variations from aggregate excess are unchanged, although their "annual and seasonal consumption profile varies each year" due to certain factors. This would appear to be clear evidence that aggregate excess was not used to determine the long-term storage requirements of some customers.

3. Aggregate Excess does not meet the Load Balancing Requirements of Heat Sensitive Customers

As noted above, the method is based on a forecast of normal weather. This provides insufficient storage under colder than normal weather conditions for residential customers and for embedded utilities carrying winter demand that is sensitive to temperature. Further, even under normal weather conditions the storage provided by aggregate excess is exhausted by March 31. Thus, the method provides no buffer for a cold snap in the first two weeks of April.

As noted, Union recognizes the need to provide for both of the above contingencies by ensuring that there is sufficient storage inventory to meet the

requirements of the March 1 and March 31 control points. Thus, for example, it purchases gas in March to ensure it has the necessary "reserve" of 5.6bcf on March 31. This approach, Kitchener submits, is uneconomical and not in the public interest. It puts customers at risk of incurring significant winter premium costs on a planned basis. It is submitted that the totality of the evidence shows that the use of cost based storage beyond the aggregate excess constraint is a less costly and more prudent way to manage the risk of colder than normal weather for heat sensitive customers.

4. Aggregate Excess does not Yield a Least Cost Supply Plan

SENDOUT is a powerful linear programming model that allows the user to optimize a number of gas supply options under given conditions, constraints and multiple scenarios (Vol. 12, pp. 81, 82 and Exhibit J 12.2 at p. 74 and Vol. 6, pp. 67-70). Planning tools such as SENDOUT used by the utilities to optimize the mix of transportation and storage assets to meet in-franchise demand should solve for the overall allocation of cost based storage needed to supply the planned demand at least cost. The storage allocation to in-franchise demands should not be determined (externally to SENDOUT) by the aggregate excess method as done by Union.

As noted above, Union employs the computer program SENDOUT to determine the optimal mix of supply sources or assets to meet the gas supply plan (Vol. 12, p.81-82). Enbridge does the same (Vol. 6, p.67-70). Union however does not allow SENDOUT to determine the optimal level of storage. Rather it is fixed by the aggregate excess method. Accordingly, it must be said that Union makes no attempt to produce a least cost supply plan which optimizes the level of cost based storage for in-franchise customers. In the result significant additional costs are imposed on customers.

It is Kitchener's submission that the Board should be satisfied that Union's proposed allocation method not only meets the needs of customers, but that it also does not add unnecessarily to their costs. If these two points are not satisfied the Ontario public interest is not being served.

The evidence respecting the cost consequences of Union's approach of fixing the storage level for its gas supply plan instead of allowing it to be solved by SENDOUT, confirms that Union is imposing significant and unnecessary costs on customers. The evidence can be summarized as follows:

- a. Union's aggregate excess storage in a normal winter is exhausted by March 31 and it makes no contribution to the reserve needed to meet a cold snap in April (Vol. 12, pp.40 and 124). Also, it provides no buffer to meet colder than normal winters that occur on a 50% basis. Deficiencies in storage for March 1 and March 31 are supplied by purchasing winter spot gas (Vol. 12, p.40).
- b. Union acknowledges that the cost of winter spot gas exceeds the cost of gas purchased before November 1 and stored (Vol. 12, p.117).
- c. UGL Undertaking 43 was asked at the technical conference on May 19, 2006 (Exhibit J 12.2, pp.27, 235) for the purpose of comparing the costs of its 2007 gas supply plan with the cost that would result if SENDOUT solved the storage component instead of aggregate excess. In the two months following this request Union has given four responses. The first three are set out in Exhibit J 12.2 at pp. 44, 47, and 50. Each of these confirmed that Union's approach imposes additional costs on customers in the order of 1.6 million annually or 9.375 million over the span of the supply plan. In cross-examination these numbers were confirmed by Mr. Poredos (Vol. 12, pp. 83-84).

d. During the cross-examination it was discovered that the table at page 50 of Exhibit J-12.2 was defective because it excluded storage costs from the calculation of the costs of its approach.

e. After the cross-examination, and no doubt after Union came to appreciate the significance of this point, it filed Exhibit K 12.6, which reconstructed the table at page 50 of Exhibit J 12.2. It purports to explain that the approach of allowing SENDOUT to solve for storage on a least cost basis somehow does not yield a least cost result. This document, of course, was not tested by cross-examination and Union has not been questioned as to how a least cost approach could possibly fail to yield a least cost result. The explanation appears to be that Exhibit K 12.6 was not produced by SENDOUT. Accordingly, the Exhibit does not provide a comparison of the cost of its gas supply plan with the costs that SENDOUT would have produced if it had solved for storage. The Board is asked to note the attempts Kitchener has made since May 19, 2006 to obtain a proper comparison in the letters at page 39 of Exhibit J 12.2.

In summary it is submitted that the burden of all the evidence on this point supports the conclusion that aggregate excess does not yield a least cost gas supply plan. The fact aggregate excess is used to fix the storage allocation for the plan instead of allowing it to be solved by SENDOUT shows that Union does not intend to create a least cost supply plan. If a least cost result for customers were intended, storage allocation would be determined by SENDOUT or by some other program to achieve a least cost result. Furthermore, it cannot be said that Exhibit K-12.6 can be relied on given the reasons argued above.

5. Aggregate Excess is not Consistent with the Principles of EBRO 410, 411 and 412

Kitchener's experience illustrates this point.

The basic principle in EBRO 410, 411 and 412 respecting storage entitlement is "that sales customers who change to T-service should be allowed to retain their existing storage entitlement (EBRO 410,411, and 412, decision dated March 23, 1987, para. 3.252: Exhibit J 12.2, p.2).

This principle guided the negotiations for a storage allocation to Kitchener when it changed from a sales customer to a T-customer with a Letter of Agreement dated April 7, 2000. A summary of the negotiations with Union at that time is outlined in paragraph 4 of Kitchener's letter to Union dated August 24, 2000 which appears at Appendix B in Kitchener's pre-filed evidence of Exhibit X 3.1 (see also Vol. 12, p.165). This document, not contradicted by Union in this case, shows that:

- the storage implicitly underpinning Union's service to Kitchener as a sales customer was 91,507^{m3}
- it was not possible to approach the allocation of 91,507^{m3} by using the aggregate excess method
- the factor of 0.976 introduced by Union in RP-1999-0017 reduced the existing allocation to 89,311^{m3} which, rounded to 89,300^{m3} became the storage allocation agreed upon

Union's proposed application of aggregate excess to Kitchener would currently reduce its existing allocation by 10.6% (customer AS in Union Undertaking 45: Exhibit J 12.2, p.57) even though Kitchener's incremental winter requirements have grown substantially since the allocation was agreed upon in 2000. It is submitted that this result is in marked contradiction of the principle established in EBRO 410, 411, and 412.

6. Grandfathering and the 5% Change in CD Mechanism do not Cure the Defects of the Aggregate Excess Method

Firstly it is submitted that the 5% mechanism leads to an absurd result. CD (contract demand) is used as a proxy for a customer's storage requirement (see I.R. response attached to UGL Undertaking K 12.1). Accordingly one would expect that an increase in CD would lead to an increased storage allocation. Not so. According to Mr. Poredos, even if the mechanism is triggered by an increase in CD, the storage allocation reverts to the aggregate excess level (Vol. 12, p.108).

Secondly, the 5% adjusting mechanism threatens serious financial impacts for customers. Because the mechanism "trumps" grandfathering (Vol. 12, p.66) the affected customer is required to purchase the balance of its storage requirements at market rates. For those customers shown on UGL Undertaking 45 to have substantial deviations from aggregate excess, the imposition of this method would be financially significant to say the least.

Thirdly, it is submitted that the continuing high level of deviations from aggregate excess shown in UGL Undertaking 45 and Exhibit K 12.4, indicates that Union has not been particularly consistent in applying the 5% rule to bring storage allocations into line with aggregate excess. It is submitted that Union's practice of not applying this mechanism consistently recognizes that aggregate excess cannot be applied to all customers.

Fourthly, it is noted that the grandfathering provision in the ADR agreement in RP-1999-0017 applies only to the T1 class and does not apply to the T3 class (Kitchener). Kitchener had only recently signed its contract which provided for storage allocation and did not participate in the ADR negotiations (Vol. 12,

pp.62-64). Union was not able to provide any reason why grandfathering should not, in principle, apply to Kitchener (Vol. 12, p.63).

F. Effect of Board Approval of Aggregate Excess in RP-1999-0017

The aggregate excess method of storage allocation for unbundled or semi-unbundled customers has not received a considered examination by the Board. Until the NGIER, it has not been subjected to cross-examination or argument. The Board's approval in RP-1999-0017 came as approval of the ADR agreement in that case.

Accordingly, it should be considered that the approach has not been fully discovered and tested for consideration of the public interest

It should also be observed on this point that Kitchener did not participate in the ADR agreement in RP-1999-0017 relating to storage allocation. Kitchener's commitment not to participate was part of the letter of agreement with Union dated April 7, 2000. Mr. Quinn testified (at Vol. 12, p.165-167) that having reached agreement on storage allocation "we wouldn't, in essence, try to renegotiate the contract by way of involvement in the ADR or in the subsequent hearing".

G. An Appropriate Approach to Storage Allocation

As argued above it is Kitchener's submission that aggregate excess is an inappropriate method for storage allocation to cost based customers. Kitchener submits therefore that the Board should formulate a different approach and one which responds to the factors outlined in section C of this argument. The approach submitted in this argument can be summarized as follows:

1. The gas supply plan should provide sufficient supply to cover the requirements of both the March 1 and March 31 control points.

2. The storage component on November 1 needed to satisfy the March 1 and March 31 control points should be determined on a least cost basis by SENDOUT or by some other appropriate basis which solves for storage on a least cost basis and in the same manner used to solve for the other components for supply.
3. The storage allocation for November 1 to cost based customers should reflect the particular storage requirements they need to meet the March 1 and March 31 control points.
4. Particularly with respect to the City of Kitchener and any other embedded utility which chooses T-service, it is submitted that the above approach requires an allocation which is developed in two parts. The first is the March 1 control point method proposed by Kitchener in its pre-filed evidence at Exhibit X-3.1. A March 1 control point approach represents the Board's approved standard respecting security of supply in the event of a colder than normal winter. To meet this standard there must be a maximum deliverability from storage on March 1. Under Kitchener's T-3 contract with Union, maximum deliverability requires Kitchener to maintain a minimum inventory balance of 20%. Kitchener's March 1 control point method described between pages 14 and 16 of Exhibit X 3.1 ensures that this requirement is made.
5. Secondly, in addition to the requirement of meeting the March 1 control point, a public utility like Kitchener operating in south-western Ontario is required to meet the March 31 control point in order to protect its customers against a possible cold snap in the first two weeks of April. It is of course always possible for a utility to furnish this reserve by purchasing spot gas in March, as Union does. However, as argued above,

this is not a commercially sound approach and imposing unnecessary costs onto customers. Accordingly, in Kitchener's submission the storage allocation to it should include space that enables it to meet the March 31 control point by placing inventory prior to November 1.

In its argument-in-chief Kitchener had equated the March 31 reserve it requires to Union's system integrity storage. After hearing the evidence on this point it is submitted that the reserve for the April cold snap should not be confused with system integrity, hence the recommendation provided in this argument.

6. Alternatively, and should the Board include a grandfathering provision in its decision, it is submitted that such a provision should extend to Kitchener. It is observed that this submission is made in the alternative to the approach outlined in paragraphs 1 to 5 above in that its current storage allocation was fixed in the year 2000 when consumption levels were lower than currently and forecasted for 2007 (Kitchener Undertaking 2).

H. Conclusion

In summary it is submitted that the Board's decision on the constraining allocation of physical storage space to in-franchise customers should contain the following determinations:

1. Union's proposal of an aggregate excess method should be rejected and replaced by allocation method along the lines described in section G above.
2. For an embedded public utility such as Kitchener with a firm obligation to serve temperature sensitive customers, Kitchener specifically seeks approval of a method that allows it to meet the standards of service implicit in the two control

points of March 1 and March 31. Accordingly, Kitchener seeks approval of an allocation which:

a. provides Kitchener with full deliverability from storage of March 1, recognizing the contractual requirement of Kitchener to maintain a minimum storage balance of 20% for maximum firm deliverability from storage in order that it can meet designed peak conditions, and

b. provides for a reserve on March 31 to enable it to manage temperature risk during the first two weeks of April.

3. In Union's supply planning process, the allocation of storage space to meet in-franchise demand should be determined by the SENDOUT model on a least cost basis. Storage should not be considered as an input to the model as externally determined by the aggregate excess methodology.

4. In the alternative, given the evidence provided, any extension of grandfathering to T1 customers allowed by or ordered by the Board should be extended to the T3 class.

ALL OF WHICH IS RESPECTFULLY SUBMITTED

Alick Ryder

Counsel on behalf of The City of Kitchener