

Reply to Intervenors Evidence

Bruce M. McConihe, Principal
LECG, LLC

May 26, 2006

Introduction

On May 1, 2006, intervenors submitted evidence¹ in connection with the Ontario Energy Board (“Board”) proceeding EB-2005-0551 on whether the Board should refrain from regulating the rates charged for natural gas storage. On May 17-19, 2006, the experts providing evidence answered clarifying questions concerning their evidence.

Areas of Agreement Among the Storage Evidence

There was agreement among the experts that the methodology to assess whether markets are competitive should be based on traditional antitrust guidelines using a three step process. The three step process looks at: 1) determination of the relevant product and the extent of the geographic market; 2) firm size and concentration; and 3) ease of entry.

Most studies defined the relevant product to be underground storage, although other potential substitutes exist.² Most studies defined the largest relevant geographic market to include: Ontario, Michigan, New York and Pennsylvania and possibly Ohio, Indiana and Illinois.³ The McConihe Evidence found, after consideration of the price of storage and transportation, and the lack of availability of transmission from the United States (“U.S.”), the relevant market is Ontario only.⁴

¹ “Economic Regulation of Natural Gas Storage in Ontario,” Study Prepared for the Ontario Energy Board, Bruce M. McConihe, May 1, 2006, p. i (hereinafter “McConihe Evidence”); “Analysis of Competition in Natural Gas Storage Markets for Union Gas Limited,” Bruce Henning, Michael Sloan, Energy and Environmental Analysis, Inc and Richard Schwindt, April 28, 2006, p.29 (hereinafter “EEA/Schwindt Evidence”); “Natural Gas Electricity Interface Review,” EB-2005-0551, Direct Evidence of Mark P. Stauf May 1, 2006, pp. 14-16 (hereinafter “Stauf Evidence”); and “Evidence Submitted to the Ontario Energy Board on behalf of Market Hub Partners Canada, L.P.,” File No. EB-2005-0551, Concentric Energy Advisors, May 1, 2006, pp. 28-30 (hereinafter “CEA Evidence”).

² McConihe Evidence, p. 21, EEA/Schwindt Evidence, p. 28, Stauf Evidence, p. 38, CEA Evidence, p. 39.

³ McConihe Evidence, p. 21, EEA/Schwindt, p. 30, CEA Evidence, p.42.

⁴ McConihe Evidence, p. 22-26.

Areas of Conflicting Storage Evidence

1. The Appropriate Geographic Market to Measure Market Shares and Concentration

A. The Price Screen

As mentioned above, most intervenors agree that the largest potential geographic market includes Ontario, Michigan, New York, Pennsylvania and possibly Ohio, Indiana and Illinois. The McConihe Evidence included an analysis of the price test screen, which indicates whether storage in the larger possible geographic market would be a cost-effective substitute to Ontario storage. As stated in the McConihe Evidence, the Competition Bureau in its Merger Enforcement Guidelines (“MEG”)⁵ outline that various functional indicators help to determine what products are considered close substitutes, including end use, physical and technical characteristics, price relationships and relative price levels. Products are not included in the same relevant market when costs that must be incurred by buyers are sufficient to render switching unlikely in response to a five percent price increase⁶. The Federal Energy Regulatory Commission (“FERC”) price test indicates that the price must be 10 percent or less.

The McConihe Evidence presented a price screen calculation in Table 2 (page 24) showing the price differentials between gas stored in the U.S. and shipped to Dawn, and gas stored at Dawn. Table 2 indicates that in the low gas price scenario, Dominion storage in New York, Pennsylvania and West Virginia and Columbia Gas Storage in Ohio, Pennsylvania and West Virginia did not meet the FERC or MEG price threshold. In the high gas scenario, Columbia Gas Transmission storage in Ohio and Pennsylvania and West Virginia did not meet FERC or MEG price threshold. Therefore, these storage facilities should be eliminated from the market share and concentration measures.

⁵ Competition Bureau, *Merger Enforcement Guidelines*, (Ottawa: Ministry of Supply and Services Canada, 2004).

⁶ *Ibid.*, para. 3.15-3.17

The EEA/Schwindt Evidence and the CEA Evidence did not conduct a price⁷ screen test. Regarding the EEA/Schwindt Evidence, Mr. Henning stated that the FERC Policy Statement makes reference to the 10 percent versus a cost-of-service rate.⁸ However, Mr. Henning concluded that such a price screen is inappropriate because in Canada, there is a presumption for rolled-in rates, “regardless of the differential between incremental cost of the facility and the existing fully depreciated rate of the existing stock.”⁹ Despite the fact that FERC requires a price screen test on cost-of-service rates, Mr. Henning rejected the price screen test because it is not based on the incremental cost of expansion. Mr. Henning has no direct knowledge of Union’s incremental charges for storage.¹⁰

At the technical conference on May 18, 2006, CEA witness, Mr. Reed, stated that he did not consider a price screen test in MHP Canada’s evidence. He stated that there was “no particular reason” for not including a price screen test.¹¹ It was Mr. Reed’s opinion that it is inappropriate to apply the price screen test because cost-based rates can be widely different, depending on the vintage of the facilities, the level of depreciation, etc.¹² Furthermore, Mr. Reed said that FERC is somewhat inconsistent when looking at the point of departure from which to apply the price screen.^{13 14}

The EEA/Schwindt Evidence and the CEA Evidence decided to deviate from both the MEG and FERC Policy Statement because of differences in depreciation and rates among the cost-of-service rates. Neither evidence attempted to offer an

⁷The McConihe Evidence used a price screen assuming a 100 percent load factor. Stauf Evidence used a price screen taking into account a load factor (around 20 percent) for storage and on associated load factor for transportation. (Stauf Evidence, p.59; Technical Conference, p.140, line 1). If the McConihe Evidence assumed a lower load factor, it is likely that some storage facilities would be less cost-effective compared to storage at Dawn.

⁸ Technical Conference, p. 98, lines 15-28, p.99, lines 1-28, May 19, 2006.

⁹ Ibid., p.99, lines 12-16.

¹⁰ Ibid., p. 100, lines 9-18.

¹¹ Technical Conference, p. 40, lines 9-16, May 18, 2006.

¹² Ibid., p. 41, lines 5-18.

¹³ Ibid., p. 41, lines 5-8.

¹⁴ FERC applied the price screen to tariffed cost-of-service transportation rates in the Northwest Natural Gas Company application (see p.52, McConihe Evidence).

alternative price comparison to indicate that storage rates in the U.S. are a cost-effective option to potential Ontario storage users. In fact, Gaz Metro witness, Ms. Brochu, has looked at Michigan storage and concluded that using storage in Michigan is “more complex, more pricey and more remote.”¹⁵ In addition, Ms. Brochu considers New York to be too remote to be an alternative.

It is concluded that the EEA/Schwindt Evidence and the CEA Evidence adopt an inappropriately larger geographic market to test whether the Ontario storage market is competitive because of the failure to apply price screens to define the relevant geographic market.

B. Availability of Alternative Storage

i) Availability of Transportation Capacity

The McConihe Evidence and the Stauff Evidence are in direct conflict with the EEA/Schwindt Evidence when it comes to pipeline capacity to move gas stored in the U.S. market to Ontario during peak winter periods. Mr. Reed did not include transportation as a component of storage because he analyzed storage in an unbundled market.¹⁶ The McConihe Evidence relied on a survey by BSA of the directly and indirectly interconnected pipelines to Dawn. The list of pipelines was taken from the EEA/Schwindt October 28, 2004 study.¹⁷ The BSA survey concluded that there was little or no transmission capacity to move gas stored in the U.S. to Ontario during peak winter periods (i.e., the pipelines are fully subscribed which means consumers cannot obtain additional transmission capacity).

The Stauff Evidence looked at the web sites of ANR, ANR Storage, Natural Fuel Gas to determine that there is no transmission or storage available.¹⁸

¹⁵ Ibid., p.86, lines 10-20.

¹⁶ Ibid., p.39, lines 10-14.

¹⁷ EEA/Schwindt, “Analysis of Competition in Natural Gas Storage Markets For Union Gas Limited,” October 28, 2004, Table 4, p.27.

¹⁸ Stauff Evidence, p.52, lines 21-22.

Furthermore, LDCs like Michcon, CMS and Nicor are regulated entities and their storage has been developed for the purpose of serving their own in-franchise customers.¹⁹ The database Ms. McConihe uses for storage confirms this.²⁰

EEA/Schmidt Evidence used its proprietary computer model to conclude that there is “operationally available pipeline capacity on all of the primary pipelines systems upstream of the Union gas system in all but a few days.”²¹ The model, GMDFS, solves for monthly flows that provide general equilibrium for the natural gas market throughout North America. The model output provides average flow data for each month, based on the forecast assumptions.²² However, since the GMDFS model only measures flows, the model cannot determine whether pipeline capacity into Ontario is fully subscribed.

Furthermore, the EEA/Schwindt Evidence relied on price correlation (Table 5) as evidence that the prices are moving together and the relevant geographic market has been properly defined. The EEA/Schwindt Evidence also presented correlations of basis differentials among hubs (Table 9) to demonstrate that the markets are functioning without any constraints and that there is no basis blowout which would cause gas market prices to separate. Mr. Henning stated that the statistical analysis results conclude that the markets are connected by the commercial transactions that are occurring in the natural gas industry.²³ Mr. Smead explained that basis blowout occurs when transmission capacity gets constrained – no matter how creative marketers are, there is no means to move gas from one area to another. Examples of blowout include the separation of prices between Southern California and the El Paso system, New England in January 2004 and the Gulf Coast from Texas and Louisiana after the hurricanes

¹⁹ Ibid., p.54.

²⁰ NGI Intelligence Press, Inc.

²¹ EEA/Schwindt Evidence, pp.31-32.

²² Technical Conference, May 19, 2006, p. 131.

²³ Ibid., p. 104, lines 23-28, p.105, lines 1-8.

in fall of 2005.²⁴ In addition, Mr. Smead did not dispute that pipeline capacity into Ontario is fully subscribed.²⁵

However, the price correlations and correlation of basis differentials among hubs provide an incomplete picture. The fact that there are no existing transmission constraints on the upstream pipelines does not reveal that these upstream pipelines at Dawn are fully subscribed. This means that consumers cannot obtain the necessary pipeline capacity until the next open season. Furthermore, gas price correlations (spot prices at hubs or gas basis differentials) cannot indicate whether gas storage is competitive. Movement of gas prices and basis differentials (basis blowout) do not reveal that storage prices in Ontario are competitive with storage prices in the U.S.

In conclusion, the McConihe Evidence and the Stauff Evidence concerning availability of pipeline capacity to move gas from U.S. storage to Ontario was unchallenged. The lack of available pipeline capacity was confirmed by Mr. Sloan and Mr. Smead's statements at the Technical Conference.

ii) Availability of Storage Capacity

At the Technical Conference, EEA/Schmidt in answering questions concerning the existence of storage capacity in the Northeast, Mr. Sloan stated that there is storage capacity under contract throughout the Northeast. Those contracts will be expiring in six months, a year, a year and a half, or two years. Therefore, there would be regular open seasons for a variety of storage facilities. Mr. Sloan stated he would be surprised to see any storage capacity available that does not have a buyer today, given the value of the forward strip for natural gas. Furthermore, Mr. Sloan said "there is so much value in holding natural gas just to

²⁴ Technical Conference May 18, p.227, lines 16-25,

²⁵ Technical Conference, May 18, p. 226, lines 19-25.

arbitrage between the summer price and winter price right now, that there should be no available storage capacity in the market today.”²⁶

As storage capacity is so valuable it is likely that storage customers will renew their contracts when they expire. The same applies to shippers holding pipeline capacity.

Another issue raised by intervenors was what should be included in the calculation of market share and concentration – all storage capacity or only storage capacity available to third parties. The McConihe Evidence excluded storage capacity not available to third parties and gas and electric utilities to serve their retail customers. EEA Evidence included all storage capacity because as Mr. Henning explained it was possible that as price moves upward, utilities could release storage to the market.²⁷ The EEA Evidence does not address the fact that utilities are regulated and regulatory authorities would likely be reluctant to move gas storage capacity in ratebase to the wholesale market to the detriment of its ratepayers.

In conclusion, when calculating market share and concentration, it is essential to ascertain whether the storage space is available to third parties. If storage space is unavailable, it is inappropriate to include this portion in market share and concentration calculations.

iii) Substitute Products to Storage

As noted above, there was general consensus that the relevant product is underground storage, and HHIs and market shares were calculated in the McConihe Evidence, the EEA/Schwindt Evidence and the CEA Evidence based on that relevant product. At the Technical Conference, it is apparent that Mr.

²⁶ Ibid., p.146, lines 18-28, p. 147, lines 1-16.

²⁷ Ibid., p.162, lines16-26, p. 163, lines 1-19.

Reed believed that bundled gas services offered by marketers provides an alternative to storage in Ontario.²⁸ Mr. Smead stated that some alternatives to Ontario gas storage include drop-off transactions, exchanges, buy-sell transactions and displacement.²⁹

Since the Technical Conference, a Canadian marketer³⁰ has confirmed that it provides services categorized as drop-off transactions, exchanges, buy-sell transactions and displacement. This marketer was asked to quantify the volume and price of such transactions. Its response was: 1) it would be hard to quantify the volume of such transactions because they consist of very specialized and customized deals; and 2) even if it could quantify the volume and price of such transactions, the information is commercially sensitive and therefore not available for publication.

However, even though specialized transactions by marketers and others occur in the Ontario marketplace, it is not possible to quantify the volume or price of those transactions. Therefore, it is not possible to ascertain whether these transactions actually provide an opportunity to displace the need for storage. Substitutes for storage need to be of the same quality and price of storage to be categorized as a product substitute. It is highly likely that these product substitutes are significantly more expensive than storage because the intrinsic value of both storage and transportation in the U.S. is very high. As a result, marketers would need a premium to use either storage or transportation in such transactions. Also, there is no evidence that these transactions could actually displace storage.

These unquantifiable other possible transactions would have to consist of an additional 7,000 MMcf to reduce Union's market share to 35 percent, to meet the

²⁸ Technical Conference, May 18, 2006, p.67, lines 25-28, p.68, lines 1-28, p 69, lines 1-6.

²⁹ Technical Conference, p.39, lines 24-28, p. 40, lines 1-12.

³⁰ The marketer spoke to Ms. Bruce McConihe on the basis that its identity would be kept confidential. Other marketers were contacted but information was not provided by them in time for inclusion in this Reply. The marketer provides a bundled service.

threshold under MEG.³¹ This means that it is necessary to increase the market size by 36.9 percent. This raises concerns whether these unquantifiable transactions could account for 36.9 percent of the Ontario storage market.

Table 1
Revised Relevant Geographic Market Concentration
Ontario and Canadian Customers Using U.S. Storage

<u>Company</u>	<u>Storage</u>	<u>MMcf</u>	<u>Market Share</u>	<u>HHI</u>
Union	Washington 10	975	47.6%	2,265.24
	Ontario	8,054		
		9,029		
Enbridge	Stagecoach	675	3.6%	12.65
Coral Energy	Stagecoach	194	7.8%	60.89
	ANR	970		
	MichCon	316		
		1,480		
Nexen	Washington 10	698	19.1%	363.00
	ANR	2,916		
		3,614		
BP Canada	Washington 10	1,156	7.8%	60.22
	ANR	316		
		1,472		
PPA	Bluewater	2,700	14.2%	202.57
Total		18,970	100.0%	2,964.57
Market Transactions Needed				
Reduce Union's Market Share		7,000		
Total Market Size		25,970	Increase of Market 36.9%	
Union's Market Share			34.8%	

³¹ Using only Union storage capacity to serve short-term contracts. EB-2005-052, Exhibit C3, Tab 4, Schedule4.

2. Market Monitoring and Price Transparency

Another area of disagreement in the evidence concerned the need for market monitoring and price discovery. Union, EGD and MHP Canada stated in their evidence that current regulation is sufficient to prevent market power manipulation and that the market has adequate price discovery. Union points to the fact that it is an open access transmission provider.³² However, what Union means by “open access transmission system” is that when a customer requires additional transmission capacity, they would come to Union and ask for M12 capacity. Once Union has significant amount of transmission requests, Union will have an open season and build that capacity.³³ Union does not have a posting on an electronic bulletin board (“EBB”) that posts available capacity on its system. A customer can nominate IT capacity on the Care system and Union will provide the IT service, if available.³⁴

Under Union’s system of open access transmission, a potential customer cannot determine on an EBB what capacity is available and what shippers have transmission under contract. Under the current open access transmission system, neither the Board nor customers have the ability to detect potential market manipulation and/or discrimination concerning transmission. This is because there is currently no requirement that Union provide such information to the Board or to market participants.

The same can be said of Union’s storage capacity—there is no information concerning who has contracted for what storage capacity and at what price, and what storage capacity may be available. Since Union has market-based rates for storage, customers are disadvantaged at the negotiating table because only Union has access to this market information. Under the current system for storage, there is no ability of the Board and market participants to detect and

³² Union Evidence, p.5, lines 11-12.

³³ Technical Conference, May 19, p. 113, lines 18-28.

³⁴ Ibid., p.115, lines1-12.

complain about market power. Although Union and others have suggested that a formal complaint process be established for Board oversight, there is no practical way to implement a complaint process since only Union and EGD have access to market information. The same market transparency rules should also apply to EGD.

Union has proposed to fix the allocation of storage to in-franchise customers as of January 1, 2007. Under its proposal, Union would still operate its storage facilities under an integrated management and Union does not intend to allocate additional physical storage facilities to the in-franchise customers (after January 1, 2007). Market transparency is critical if there is an allocation of storage capacity to the in-franchise customers. Union could use in-franchise capacity to the detriment of the in-franchise customers because there is no means to monitor how the storage capacity is utilized in the market. In addition, if Union determines that the in-franchise customers need additional storage capacity to serve its load, Union has stated that it will purchase the additional in-franchise requirements in the marketplace (through an RFP process) instead of developing its own storage or “claw back” its ex-franchise contracts. This raises issues concerning: 1) Union’s criteria in deciding whether to procure storage space through a market tender or develop its own storage space and 2) Union’s evaluation criteria in choosing a third party storage provider in the proposed market tendering process. Such a proposal is susceptible to manipulation. Under the current system, without some market transparency, there is no means to monitor these activities.

FERC recognized the importance of market monitoring and price transparency and in April 1992, issued Order No. 636.³⁵ Order No. 636 requires interstate pipelines to provide shippers equal and timely information through an electronic bulletin board (“EBB”). This information includes availability of pipeline capacity

³⁵ Order No. 636, 59 FERC 61,030, April 8, 1992.

at receipt points and also what capacity shippers have released and therefore available to the market (release capacity also termed secondary market). In 1992, the ownership of most storage was held by the pipelines. Order No. 636 classified storage as transportation and FERC decided that pipelines had superior access to storage. Order No. 636 required pipelines to offer storage on an open access nondiscriminatory basis. In addition, pipelines must post the availability of storage capacity on the EBB, as well as a listing of customers holding storage capacity and the dates of the contract termination. Furthermore, Order No. 636 instructed pipelines to structurally separate marketing activities from transmission and storage operations in order to prevent manipulation of the market information.

In addition, Union, EGD and MHP Canada asserted that the current Affiliate Relationships Code for Gas Utilities (“ARC”) regulations governing affiliate dealings are sufficient to prevent affiliate abuse. However, the ARC regulation allows Union, MHP Canada, EGD, and Enbridge Inc. to self-police the implementation of ARC, with little oversight from the Board. Currently, the Board’s ARC focuses on gas utilities and affiliate marketers, and was not developed to examine issues regarding transmitters and storage providers. As a result, the Board does not have a formal process: a) to monitor and audit market power abuses and b) for participants to file market abuse complaints. One possible process that the Board could adopt is a code that is similar to FERC’s Standards of Conduct for Transmission Providers.³⁶

³⁶ MHP Evidence, p. A-3.

3. Conclusions

EGD and Union acknowledged that pipeline capacity to bring gas stored in the U.S. is fully subscribed. Given this reality, the relevant market is Ontario storage plus storage held by Canadians in the U.S. This market is highly concentrated and Union holds a 47.6 market share.

EGD, Union and MHP Canada asserted that bundled gas services provided by marketers holding transmission capacity and/or storage in the U.S. and Canada are displacing the use of storage in Ontario and these bundled services compete with Ontario storage. No evidence has been presented that demonstrates these bundled services are of the same quality or price as Ontario storage.

Some of the intervenors believed there is no need for price transparency. However, the regulator (Board) needs to have market information to detect market manipulation. Market participants also need market information to make informed decisions. If only the sellers of storage capacity have market information, the market cannot operate efficiently.

It is possible that a secondary market for transmission and storage has developed in Ontario but this market lacks transparency in terms of price, volume, etc. for market participants to make informed decisions. To remedy the lack of market transparency the Board could consider establishing rules for a secondary market, as outlined in FERC's Order No. 636.