

**ONTARIO ENERGY BOARD**

**NATURAL GAS ELECTRICITY INTERFACE REVIEW  
EB-2005-0551**

**REPLY EVIDENCE**

**of**

**MARK P. STAUFF**

**MAY 26, 2006**

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**A. Introduction and Overview**

**Q. What is the purpose of this Reply Evidence?**

**A.** The primary purpose of this Reply Evidence is to respond to the evidence filed by Union Gas Limited (“Union”) in this proceeding in relation to Issue II, Storage Regulation. In its evidence Enbridge Gas Distribution Inc. (“EGD”) relies very heavily on Union’s evidence in relation to the issues that I will address here. In the interests of efficiency I will therefore focus on Union’s submissions. In this Reply Evidence I will refer to Union and EGD collectively as the “Utilities”.

**Q. Please describe in general terms your understanding of the evidence of the Utilities to which you wish to reply.**

**A.** The Utilities’ assert that they lack market power in the storage market in Ontario. They therefore suggest that, as a matter of high-level principle, it would be appropriate for the Board to refrain from regulating the rates that they charge for storage services. However,

for the purposes of this proceeding both EGD and Union propose that the Board forbear from regulating storage rates only for ex-franchise customers and limited segments of the in-franchise market. The Utilities propose to continue to charge cost-based rates for storage services provided to most existing in-franchise customers.

**Q. What reasons have the Utilities advanced for continuing to charge cost-based rates to most in-franchise customers?**

**A.** The Utilities appear to acknowledge in their evidence that it would not be appropriate to charge market prices for storage service that is provided as part of a bundled delivery service, although they are vague about what conditions they believe would need to be satisfied, in terms of unbundling or the up-take of unbundled services, before the Board could safely forbear from regulating all storage. Based on the Utilities' assertion that they lack market power in the storage market generally, it is reasonable to assume that in the long run they will seek to expand the set of customers who will be subjected to market prices for storage, and possibly eliminate cost-based storage rates entirely.

**Q. Even though the Utilities are not asking the Board to refrain from regulating all storage rates at this time, do you have concerns with their proposals?**

**A.** Yes. The Utilities' underlying position is that they lack market power in relation to storage generally, subject to the caveat related to bundled services. I do not believe that that position is correct. With respect specifically to the portions of the market that the

Utilities propose be subject to market prices for storage, their position is that the market premiums that have been observed in the ex-franchise storage market simply reflect a competitive outcome, and that it is therefore appropriate for the Utilities to both collect and retain that premium. My conclusion is that the observed premiums are the result of the exercise of market power, and there is no justifiable basis for the Utilities to continue to collect them, at least from customers who are dependent on storage as part of the overall delivery system for gas. Even if it were thought to be appropriate to collect those premiums from some or all ex-franchise customers, there is certainly no reason for the Utilities to retain the entirety of those premiums for their shareholders.

**Q. Please identify the issues you address in this Reply Evidence and summarize your conclusions.**

**A.** First, Union and others suggest that there are non-storage substitutes for Utility storage that constrain the Utilities' ability to exercise market power in the storage market. My Reply Evidence attempts to demonstrate that these products are not substitutes for the storage delivery services that end-use gas consumers require.

With respect to issues around whether alternative storage facilities, primarily outside of Ontario, provide effective competition for the Utilities and ensure that they lack market power, Union relies primarily on a study prepared by Economic and Environmental Analysis ("EEA") and Dr. Schwindt (the "EEA&S Study"). The central issue with that study is its definition of the relevant geographic market for the purposes of conducting

their market power analysis. The authors of the Study rely on two main analytical tools to justify their definition of the relevant geographical market.

The first of those is an examination of the physical storage and pipeline infrastructure in and around Ontario. The analysis presented in the Study does not support the proposed definition of the relevant geographic market. In addition, this analysis fails to consider several issues that are important for the purpose of evaluating the Utilities' market power.

The second approach taken in the EEA&S Study to justifying the proposed definition of the geographic market is a study of gas price behavior. The results of that study do not provide meaningful support for the proposed geographic market definition.

As a final matter, in their evidence and at the Technical Conference held in this proceeding from May 16-19, 2006 ("Technical Conference") Union and others have taken certain positions on issues around what the appropriate definition is of the "competitive price level" for the purposes of determining whether the Utilities have market power in relation to storage. This Reply Evidence sets out and explains my conclusion that current rate levels should be used to evaluate the price competitiveness of alternatives.

**B. Non-Storage Alternatives to Utility Storage**

**Q. What is Union's evidence about non-storage substitutes for the storage services provided by it and EGD to which you wish to reply?**

- A. In section 3.3 of its Storage Regulation evidence Union describes various competitive alternatives to Union storage, while in section 3.4 it discusses the liquidity of the Dawn hub. In these sections Union makes the claim that certain non-storage products, like “Winter Spot purchases at Dawn”, “Dawn delivered service (i.e. winter peaking services)”, and “Financial options to hedge winter gas deliveries” are meaningful competitive alternatives to storage services offered by Union.

This argument is also made by EEA and Dr. Schwindt, and by EGD and Union’s affiliate Market Hub Partners. The EEA&S Study discusses these alternatives to storage. Under the general heading of “Storage End Uses” in section III-B-1, at pages 21-28, the authors discuss storage’s role in managing price volatility and variability, and the use of financial derivatives, “synthetic storage”, and market area gas purchases as alternatives to storage capacity. The Concentric Energy Advisors study that was filed by MHP discusses these issues in Part V, and the Navigant Study that was filed by Enbridge makes similar observations. At the Technical Conference the consultants who authored these reports spent considerable time explaining how the North American natural gas market operates in a highly integrated fashion across broad regions, and how physical and financial trading transactions ensure that the gas market operates efficiently.

- Q. Are these products substitutes for the firm storage space and deliverability that Union and EGD provide to their customers to enable them to seasonally balance the gas volumes that they are obliged to deliver to Union and EGD?**

- A. No they are not. It is true that storage creates a hedge against volatility in winter gas prices. It is also true that there are alternative ways of hedging against price volatility, the most obvious of which is to simply buy gas for the winter period at a fixed price. Although various more or less elaborate versions of that are available, e.g. financial hedges, the basic idea is a simple one.

However, if the issue is whether the Utilities have market power, and what alternatives exist to Utility storage that could constrain the prices charged for storage services, it must be recognized that the main function of storage in Ontario is not to assist with the management of price risk, but simply to augment the delivery system via “seasonal load balancing”. The product that end-use consumers need is annual, ever-greened firm load balancing services, which will enable them to balance the volumes that they are obliged to deliver each and every day of the year with their end-use consumption. That product is not available from the substitutes that are used to hedge against price volatility. The load balancing function is clearly the primary value of storage for in-franchise customers of both Utilities, and for Enbridge and GMi when they purchase storage services at market prices from Union. That may also be the case for many of the other customers who purchase storage at market prices from Union. The portion of the overall set of storage customers for whom price hedging is the primary motivation for holding storage is likely a small fraction of the total, and on an aggregate basis the existence of “storage alternatives” of this nature would have no measurable effect on the prices charged by the Utilities if their storage rates were not regulated.

**Q. Market area purchases of gas have become increasingly common in Ontario over the last decade. Are market area purchases a competitive alternative to Utility storage, as the Utilities and their consultants suggest?**

**A.** No. It is true that the existence of a “liquid hub” at Dawn may make it unnecessary for individual end-use customers, or even immediate suppliers to end-use customers, to contract with Union or EGD for storage service, or with TransCanada or Vector for upstream pipeline service.

That does not mean, however, that the existing storage and transportation infrastructure is *unnecessary*, or that market area supply purchases are “competitive alternatives” to Union storage or TransCanada gas transportation services in the sense that they could conceivably constrain the pricing behavior of those companies. Gas has to physically get to Ontario somehow, and in order for winter requirements to be met someone has to contract for and use Union and EGD storage service. Someone has to pay for that service, and the market will ensure that those costs are ultimately passed down the chain of title to end-users. Ontario end-users cannot avoid the market power of the Utilities by the simple device of purchasing their gas requirements in the market area.

**C. EEA&S Study**

**Q. What is the central or critical issue with the EEA&S Study?**



A. The EEA&S Study follows generally the methodology that the FERC applies when it reviews applications for market-based rate authority. That is, the authors define the relevant geographic and product markets, and then conduct a market concentration analysis based on those market definitions. Because the Utilities will fail any reasonable market concentration test if the geographic market is limited to Ontario, EEA and Dr. Schwindt must expand the analysis to include a much larger geographic market if they hope to show that the Utilities, and for their purposes Union in particular, lack market power. In fact the geographic market that they identify is large, and essentially the same as the geographic market that they identified in their October 2004 study. The inevitable result of that is that when they proceed to the market concentration analysis step of the process their conclusion is that Union lacks market power. The critical issue with this whole chain of reasoning is therefore whether the geographic market that they select is appropriate.

**Q. The EEA&S Study purports to identify an appropriate geographic market via a three step analysis. Please describe those steps.**

A. The first step is described as an “evaluation of the physical infrastructure allowing competition”. (EEA&S Study, p29, 2<sup>nd</sup> full paragraph). The second is described as “an analysis of market pricing behavior to confirm the boundaries of the regional natural gas market”, while the third step involves an evaluation of “more qualitative evaluative criteria such as actual buyer behavior and third party views”.

**D. EEA&S Study Evaluation of Physical Infrastructure**

**Q. What information does the EEA&S Study provide in relation to its “evaluation of physical infrastructure allowing competition?”**

**A.** Figure 3 on page 30 of the Study is a map showing the distribution of storage facilities in the U.S. and Canada. Figure 4 on page 31 is a map showing pipelines in the Michigan, Ontario, Ohio, and New York areas. Tables 2 and 3 list “Natural Gas Pipelines Connected with Union Gas Storage” and “Major Storage Areas Connected to the Union Gas Storage System”, respectively.

The analysis of this information that is presented at page 31 of the Study is:

With all of these pipeline transportation routes available, storage connected to the pipelines described can substitute for Union’s storage capacity and provide economic alternatives for customer’s purchasing Union storage at Dawn. This table [table 3] also indicates second order pipeline interconnects with National Fuel Gas in southwestern New York and Columbia Gas in Ohio, West Virginia, and Pennsylvania, and Dominion Transmission in Pennsylvania.

EEA evaluates gas pipeline capacity and capacity utilization in great detail as part of the routine maintenance of the EEA Gas Market Data and Forecasting System. In our analysis, we find that operationally available pipeline capacity exists on all of the primary pipeline systems upstream of the Union Gas Storage in all but a very few days. ... TCPL and Great Lakes have reliable excess capacity nearly all of the time. Alliance generally operates at new full capacity, and Vector often operates at near full capacity, however volumes on these pipelines can easily be shifted to either TCPL or Great Lakes, or other systems if necessary to meet flow

requirements. As a result, storage that is directly tied to any of these systems can be relied on to provide storage services in the Union Gas competitive market area.

Union Gas storage also competes with storage capacity downstream of Ontario serving the Northeastern U.S. Market. This includes storage facilities in New York, Pennsylvania, Ohio, and West Virginia. The storage capacity on the National Fuel Gas Supply system in Niagara and further south is the most directly linked storage capacity in this region. Union Gas storage is competitive with these downstream storage assets as long as sufficient pipeline capacity exists to transport storage gas from Dawn to the NFG system via Niagara. Union Gas is expanding the Trafalgar pipeline system to meet customer peak day requirements including access to upstream storage capacity. The expansion will increase peak and off peak capacity, providing additional access to storage for customers downstream of Dawn.

**Q. Does this material demonstrate that either the core or non-core market areas defined by EEA and Dr. Schwindt are appropriate?**

**A.** With respect to storage that is potentially accessible through Niagara, the report says that “Union Gas storage is competitive with these downstream storage assets as long as sufficient pipeline capacity exists to transport storage gas from Dawn to the NFG system via Niagara.” Accordingly, the authors of this report acknowledge that, in order for potential alternative storage facilities to function as genuine competitors to Union’s storage facilities, there must be adequate pipeline capacity available to transport storage volumes to those alternative facilities and from those facilities to Ontario consuming regions. However, the Study does not actually make any claim that such capacity is available in relation to storage in the U.S. Northeast. The sentence that follows refers to Union’s planned expansion of the Dawn Trafalgar system, but appears to assume that the proposed expansion is intended to facilitate movements of gas from Dawn to consuming

regions, which has nothing to do with Niagara. In any event, Niagara is a TransCanada point, and any expansion of capacity to or from Niagara would be done by TransCanada and not Union.

With respect to storage west of Ontario, the authors rely on results generated by EEA's proprietary modeling system to make various claims about the availability of necessary transportation capacity. As an initial observation, it should be noted that no details of that model have been presented, although at the Technical Conference EEA undertook to provide some material. While such models are interesting, and sometimes helpful in a directional sense, my experience is that they are usually not good predictors of actual market behavior.

In any event, the first claim made is that "TCPL and Great Lakes have reliable excess capacity nearly all of the time." First, my understanding is that "operationally available" capacity is, basically, interruptible capacity. As far as I am aware TransCanada is fully contracted east of Winnipeg/Emerson, and for many years TransCanada shippers have consistently operated at essentially a 100% load factor. These facts are inconsistent with the predictions of the EEA model. In any event, TransCanada capacity is not relevant to the analysis, since it does not connect to any of the storage facilities included in EEA's proposed geographic market.

The study notes that Alliance and Vector are generally full, although it does not appear that Alliance is relevant to the analysis, for the same reason that TransCanada is not

relevant. The Study then claims that “volumes on these pipelines [i.e. Alliance and Vector] can easily be shifted to TCPL or Great Lakes”. This is a questionable claim, or at best a claim that is true only in a sense that is trivial or irrelevant to the issue we are considering. Volumes on Alliance and Vector can be shifted to TransCanada *in Alberta*, upstream of the NGTL system, but that is irrelevant to movements of gas from storage in Chicago or Michigan to Ontario. If we consider Vector and Great Lakes, volumes cannot be “shifted” from the main Vector receipt point in Chicago to Great Lakes, or from intermediate points on Vector to Great Lakes, without going through an intermediate pipeline, e.g. ANR or perhaps Michcon. Such transfers have a cost, and capacity may or may not be available.

In the end, the only relevant factual assertion that the EEA&S Study appears to make in support of the proposition that “storage that is directly tied to any of these systems can be relied on to provide storage services in the Union Gas competitive market area” is that, according to EEA’s computer model, Great Lakes will probably have available interruptible capacity “nearly all of the time.” This assertion, even if it is true, does not demonstrate that firm storage services for an annually evergreening term, and the necessary firm transportation to deliver storage volumes to Ontario, will be available to end-use consumers served by EGD and Union in areas west of Ontario in Michigan and the Chicago area.

**Q. Is there a general problem with the EEA&S Study’s initial analysis of the relevant geographic market?**

- A. Yes. The purpose of a market power study is ultimately to determine whether there are alternatives to the applicant's services that are available soon enough, in sufficient quantity, and at a low enough price, such that the availability of those alternatives will prevent the applicant from increasing its prices significantly above the competitive level for an extended period. My understanding of the purpose of the "geographic market definition" step of a market power analysis is that it is to identify the set of potential available alternatives that more or less meet those criteria, i.e. that can reasonably be said to be viable competitive alternatives to the Applicant's services. If that is not the case, it is difficult to see what purpose is served by defining the geographic market.

In order to proceed with that enquiry, it would seem to be necessary to consider, as an initial matter, the questions of what it means, in concrete terms, to say that alternatives are available "in sufficient quantities", "soon enough", and "at a sufficiently low cost" that they will count as genuine competitive alternatives for the purpose of defining the relevant market.

In the EEA&S Study the authors have not addressed these issues in any meaningful way. There is no discussion of what criteria one might apply in determining whether a particular U.S. storage facility is "available" as an alternative to Union storage, in terms either of the level of unsubscribed storage capacity at the facility, its contracting status, or the availability of connecting transportation capacity. Similarly, there is no discussion of what criteria one might apply in trying to determine if the alternatives that are "available"

(in whatever sense is appropriate) are available in sufficient quantities that they will effectively discipline the pricing behavior of Union. Finally, and perhaps most importantly, the authors of the EEAS Study do not address at all the issue of what cost thresholds are appropriate for the purposes of deciding whether a potential alternative is a genuine or viable alternative for the purposes of constraining the prices charged by Union to a just and reasonable level. In particular, they do not discuss at all the issues of what “the competitive level” of prices is for these purposes, the issue of what will constitute a significant departure from the competitive level, or how one might appropriately measure the cost of the alternatives for these purposes.

**E. Market Pricing Analysis**

**Q. Please describe the second step in the EEA&S Study’s analysis of the relevant geographic market.**

**A.** The EEA&S Study describes the approach as follows:

In order for storage facilities to compete within the same relevant geographic market, pipeline transportation constraints must not prevent a buyer from receiving service from the other storage providers. If there are significant pipeline transportation constraints, the buyer cannot conclude that the facility can offer a service that is “an economic equivalent.” Our analysis of market behavior is designed to exclude any storage facilities from the relevant geographic market where transportation constraints are pervasive and limit the ability to utilize alternative storage service to meet a buyer’s needs. This is accomplished by limiting the market to those facilities that exhibit closely correlated natural gas prices.

In an integrated and competitive market, we expect prices and price movements to be relatively consistent across a competitive market area, but to diverge in areas outside of the competitive market area. Hence, we have evaluated natural gas market price behavior to confirm our analysis of the competitive region for Union gas storage services. [p.34]

What follows this passage is some ten pages of detailed analysis of price relationships between various points on the pipeline grid, supporting an assertion that prices within the core competitive market area identified in the study are closely correlated, and that this demonstrates that points within that area constitute an integrated competitive market.

**Q. Do you have any comments on this approach?**

**A.** Yes. First of all, it is important to understand what this analysis is intended to demonstrate. In the passage quoted above, the suggestion seems to be that the point of the analysis is to demonstrate that there are no significant transportation constraints between the points within the suggested geographic market area. At the same time, at the bottom of page 34, the Study says that “Unfortunately, there exists no ‘price series’ of charges for storage that these facilities [i.e. proposed alternative storage facilities]. However, proxy measures are available.” At that point, however, the Study changes topics, and there is no explanation of what is meant by “proxy measures”.

It is therefore not clear to me what the Study is suggesting. It is one thing to say that stability in price relationships indicates a lack of transportation constraints between the points being studied, which as a general proposition I accept. It is quite another thing to



say that observed daily prices at market centers are a “proxy” for storage costs at a particular point, or for the costs associated with storing gas and transporting it between two points. While storage and transportation costs are factors in the price formation mechanism at individual points and across the grid, there is no necessary relationship between daily prices at particular points and storage costs at those points, or between daily price differences between two points and transportation costs (especially firm transportation costs) between those points.

In fact, the price differential between two points, e.g. Henry Hub and Chicago, usually bears no discernable relationship to the full cost of transporting gas between those points, and the gas price differential between any two points is usually noticeably lower (especially during the summer, and therefore also on an annual basis) than the all-in cost of transportation. To the extent that those price differentials are influenced by transportation cost factors, it is *variable* transportation costs, i.e. primarily the cost of fuel, that is usually relevant. The dynamics of price formation, and of the processes through which price differentials are established and vary, are extremely complex. I do not believe that it is reasonable to say, and it has not been demonstrated in the EEA&S Study, that those differentials give us useful information about the cost of either firm storage or firm transportation services that may constitute competitive alternatives to Union storage.

**Q. What is your understanding of the conclusion that is being suggested in the Study?**

- A. It is difficult to say. The matter is not clearly explained in the EEA&S Study. The first step in the theory seems to be that, if prices at various points within an area tend to be related in a stable way, that implies that the various points are part of a “competitive market” or an “integrated market” (p.34, 4<sup>th</sup> paragraph). That is a proposition I accept, as it relates to gas pricing, and in fact the effective “integration” of the gas market goes far beyond the boundaries of the geographic market that the EEA&S Study proposes for the purposes of its market power study. Prices across the entire North American pipeline grid are linked in fairly predictable ways, and when prices in one area become persistently “de-linked” from prices on the grid as a whole that is generally because some local factor results in a large-scale transportation constraint. Examples include the low-price environment that arose in Alberta in the mid-1990’s, and similar problems that have been encountered by Rocky Mountain producers more recently. None of this is controversial, but none of it seems to me to be directly relevant to the matters at issue in this case.

The suggestion in the EEA&S Study seems to be (see page 36, 3d paragraph) that because gas prices at the various market centers that the Study examines are linked, storage facilities at those market centers are all economical substitutes for one another, from the perspective of customers at all of the market centers. If that claim is accepted, then it appears to follow immediately that Union competes on a level playing field with all of the other storage providers in the proposed market area to supply services to customers at all points in the proposed market area, including Ontario. That, as I understand it, is ultimately what the EEA&S Study is saying.

**Q. Does it follow from the fact that the commodity market is integrated in the sense that you have described that storage facilities at all points on the grid are good substitutes for one another from the perspective of all customers?**

**A.** No. That would be true if it were the case that transportation across the grid was completely unconstrained *and* that the cost of transportation between all points was equal, i.e. if there was a continent-wide “postage stamp” rate for gas transportation. Of course that is not the case, and the result is that storage facilities, and for that matter gas supplies, at different points on the grid are not economically equivalent for all customers across the grid. Location-specific factors related to transportation costs and the positions of market centers on the grid make the economics of supply and storage at different points look different from the perspective of customers with consumption requirements at different points.

As a simple example, gas supply in the U.S. Northeast, e.g. on the Dominion system, is plainly not a good substitute for gas supply at Dawn, from the perspective of a customer with requirements in Sarnia. That is so simply because the price of gas is systematically higher at that point than it is at Dawn, (see Table 6 in the Study) *and* because the customer would have to pay for transportation to move the gas from the Northeast to Sarnia. Even if the Dominion and Dawn gas prices were the same, the customer would always buy its supply at Dawn because of this transportation effect. The economic disadvantage faced by supply on the Dominion system in competing for sales to Sarnia

customers is not the result of the market not being “integrated” or “competitive”, or of any transportation constraint, but rather simply the configuration of, and costs associated with, different sections of the pipeline grid.

Similarly in relation to storage, transportation cost factors operate in the integrated, competitive market, and in the absence of transportation constraints, to make some storage facilities more attractive than others to customers at every point on the grid. As I explained in my direct evidence, there is a systematic effect of this kind in relation to storage that makes contracting for storage dramatically less attractive the further the storage facility is from the point at which the gas is consumed. Again, this has nothing to do with whether the market is competitive or integrated, or with whether transportation is constrained; it is simply the result of the configuration and economics of pipeline transportation systems.

**Q. Returning to the issue of transportation constraints, does the price differential analysis in the EEA&S Study show that there are no transportation constraints that would prevent Ontario customers from accessing alternative storage facilities if the Utilities attempted to increase the price of their storage services above the competitive level?**

**A.** No. What the price differential analysis in the EEA&S Study shows is that during the historical period that was studied there did not appear to be significant transportation constraints within the identified geographic area, i.e. that there was excess transportation

capacity in the market. That does not tell us, however, how much excess capacity there was, because any amount of excess will have the same effect. What the Study shows is that the transportation system was not significantly stressed, but that would be true if there was 10 MMcf/d of excess capacity, or 500 MMcf/d.

**Q. Does the amount of excess capacity in the market relate to the issue of whether Union has market power in the storage market?**

**A.** Yes. The “market power question” always is: would the firm in question be able to profitably increase the price of its product above the competitive level for an extended period? The question, as it relates to the market power of the Utilities in relation to storage generally, therefore, is one of what *would* happen if the Utilities were given the right to charge market prices for all of their storage and attempted to increase the price of storage significantly.

In fact any attempt by the Utilities to increase the price of the very large amounts of storage capacity that they control would shift the pricing incentives on the transportation grid and itself *create* transportation constraints. The market’s response to an attempt by the Utilities to increase storage prices would be for gas to ‘want’ to flood into Ontario, and in my opinion that response would likely overwhelm whatever small amount of excess transportation capacity exists in the market today.

The market pricing study therefore does nothing to demonstrate that Union’s and EGD’s customers could acquire, outside of Ontario, the firm, annually ever-greening storage space, storage deliverability, and transportation to and from ex-Ontario storage areas they would need to seasonally balance their obligated deliveries to Union and EGD, if they were not prepared to pay the market prices for storage that were demanded by the Utilities. The market pricing study also tells us nothing about the price those customers would need to pay to acquire such services even if they were available.

**F. Definition of the “Competitive Level” of Prices in Market Power Analysis**

**Q. How do the Utilities explain the fact that observed market prices exceed a cost-based level by a considerable margin?**

**A.** The Utilities’ appear to suggest that, because the observed market prices for Utility storage reflect in some way the influence of market forces, those prices therefore reflect the “competitive level” for the purposes of a market power analysis.

**Q. Do you have any comments on that proposition?**

**A.** The fact that there is a functioning market for products in relation to which certain parties may have market power does not mean that the prices seen in that market are “competitive prices” in the sense that is relevant to a market power analysis. If a service provider is able to extract a scarcity premium, relative to the cost of providing the

service, from those to whom it sells its products, that is evidence of market power and not evidence of a workably competitive market.

**Q. Did the Utilities comment on the suggestion that, following the FERC’s approach, the evaluation of a utility’s ability to increase price above the competitive level should be based on a comparison of expected market prices to the current level of the utility’s regulated rates?**

**A.** They did not comment on that issue in their direct evidence. However, at the Technical Conference experts for the Utilities and for Market Hub Partners did comment on that proposition. Some appeared to suggest that the FERC does not really utilize that standard in evaluating applications for market based rates. Some suggested that the FERC makes a practice of using incrementally determined rates as the “competitive level” standard, and some seemed to simply be suggesting that the FERC is wrong to use existing utility rates as the competitive level standard. In any event, all of those experts seemed to believe that it is not appropriate to compare observed or predicted prices with conventional cost-based rates for the purpose of determining whether a firm has market power. Instead, as I understood their positions, some higher competitive level should be assumed.

**Q. Is that a reasonable suggestion?**

**A.** No. If the competitive price level of the services a utility currently provides is defined, for the purposes of conducting a market power analysis, to be significantly higher than the utilities' current regulated rate level, then market power analyses will systematically lead decision-makers to refrain from regulating prices in situations where the expected market prices are higher than the just and reasonable prices prescribed under the standard cost of service methodology. The general and systematic effect will therefore be to increase prices for consumers, and increase profits for utilities, relative to the prices and profits that would be seen under the regulated regime. That, as I understand it, is not the purpose or intended result of giving tribunals like the Board the ability to forbear from regulating prices for utility services in situations where competition is thought to be sufficiently vigorous to protect the public interest.

An embedded cost rate is therefore the appropriate standard to measure expected market prices against, regardless of what economic theory may suggest about how prices will be determined in competitive markets. If the utilities are held to that standard, i.e. if they are only allowed market pricing in cases where the Board is satisfied that market prices will not substantially and persistently exceed existing cost-based rates, that is a fair outcome for both utilities and consumers.

**Q.** Does that conclude your Reply Evidence?

**A.** Yes.