STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

ILLINOIS COMMERCE COMMISSION	**)**	
ON ITS OWN MOTION,	**)**	
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V.	**)**	
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NORTH SHORE GAS COMPANY	**)**	**DOCKET NO. 01-0706**
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	)	
RECONCILIATION OF REVENUES	**)**	
COLLECTED UNDER GAS	**)**	
ADJUSTMENT CHARGES WITH	**)**	
ACTUAL COSTS PRUDENTLY	**)**	
INCURRED	**)**	

ADDITIONAL REBUTTAL TESTIMONY

OF

FRANK C. GRAVES

JANUARY 28, 2005

INTRODUCTION

Q. What is your name and position?

A. I am Frank C. Graves, a principal with The Brattle Group who is testifying on behalf of North Shore Gas Company ("North Shore").

Q. Are you the same Frank Graves who submitted rebuttal testimony in this proceeding?

A. Yes, I am.

Q. What is the purpose of your testimony?

A. I will rebut arguments offered by Staff witness Dr. David Rearden claiming to demonstrate that the Gas Purchase and Agency Agreement ("GPAA") contract was imprudent.

Q. What are your key findings?

A. I find that Dr. Rearden has not performed an analysis that is comprehensive enough to reach the conclusion that the GPAA was imprudent. Dr. Rearden's updated analysis of the GPAA primarily differs from his prior assessment by using specific field prices for natural gas rather than the Henry Hub price. This is consistent with the so-called "Aruba" analysis that was done by an employee (Roy Rodriguez) within a division of Peoples Energy Corporation shortly before the GPAA was signed. Dr. Rearden finds the GPAA could have been projected to cost customers around $4.5 million over its five-year life. However, his new analysis contains computational errors that, when corrected, reduce this cost disadvantage significantly. In addition, his new analysis continues to rely entirely on one scenario describing future possible basis prices (or equivalently, city-gate prices), when in fact that outlook was very uncertain and included possibilities much more favorable to the GPAA.

Although he acknowledges the existence of other scenarios that make the GPAA attractive, Dr. Rearden chooses to dismiss those scenarios and instead he criticizes the company for not completing a more formal analysis that demonstrated its belief that the GPAA was a good idea. This may be a valid criticism, but it is a complaint about the company's planning processes and documentation thereof, not a complaint about the prudence of the plans that were followed. Prudence rests on what a reasonable person might have concluded at the time, not on how the company reached its conclusions.

Finally, even if Dr. Rearden's view of how to assess prudence was accepted, I disagree with the way he has calculated a recommended disallowance amount. Specifically, Dr. Rearden fails to consider alternative terms that would have made the GPAA more attractive. I have considered such alternative terms, and I provide a methodology that, unlike Dr. Rearden's, does not penalize North Shore for the highly anomalous gas price environment that occurred in the reconciliation period, but which was only evident after the fact.

Q. How is your testimony organized?

A. I first discuss errors in Dr. Rearden's evaluation of the GPAA and then explain the flaws in his disallowance calculation.

DR. REARDEN'S UPDATED ANALYSIS OF THE GPAA CONTAINS ERRORS AND IS NOT SUFFICIENT FOR A FINDING OF IMPRUDENCE.

Q. Dr. Rearden has performed an updated analysis in which he finds the GPAA appeared prospectively to be disadvantageous to ratepayers by around $4.5 million. Do you agree with his new analysis?

A. No. His revised analysis is a modification of the assessment in his original testimony, now with somewhat lower field prices as a result of using gas price projections from specific basins instead of from Henry Hub. In the new analysis, he is relying on some parameters used in a simulation of the GPAA performed by Mr. Rodriguez (at Peoples Energy Corporation) in September 1999. This revision results in a $1.6 million increase in Dr. Rearden's delivered vs. city-gate comparison, bringing his calculated disadvantage of the GPAA (with respect to this delivered-city-gate element) from $4.0 million originally to $5.6 million now. However, he has made a few errors in his use of field price data, discussed below, which when corrected eliminates a significant portion of the GPAA cost disadvantage he believes he has identified.

In addition, like his prior analysis, this updated assessment just looks at the GPAA in terms of simulation parameters supplied by the company for a single scenario of how the market might evolve. Dr. Rearden does not look at structural conditions prevailing or emerging in the Chicago market area for any corroboration about how likely these assumptions were, nor does he assess the GPAA under any other market forecasts or scenarios.

Q. Why is this reliance on just Mr. Rodriguez's study a problem?

A. First, he is implicitly assuming that the analysis describes the company's expected scenario or planning scenario. That is certainly not established simply by virtue of it being (apparently) the only contemporaneous modeling of the GPAA that the company performed. The company's planners and managers were certainly aware of risks or potential changes in industry conditions that they did not model, but which they may have felt gave them ample confidence in a more subjective assessment.

Second, the results of a single study of a complex contract in a changing, uncertain market environment are not sufficient for judging prudence. This is readily seen by imagining the opposite situation: If the study by Mr. Rodriquez had been very favorable to the GPAA, I doubt that Dr. Rearden or the Staff would be content to rely on it as proof of prudence, solely because it was the company's analysis and expectation. Instead, he would have compared the GPAA to alternative supply arrangements under a richer set of circumstances. Prudence ought to be based on what a reasonable analyst would have concluded is attractive across a range of circumstances foreseeable at the time, not on a single favorable or unfavorable company study.

Q. Dr. Rearden rejects the use of the CERA and PIRA scenarios in your prior rebuttal testimony. What are his criticisms?

A. There are three. First, Dr. Rearden argues that my analysis with CERA scenarios is "simply after the fact justification rather than a demonstration that the Company acted prudently."[1] Of course, he is correct that the analysis was conducted after-the-fact, but that is what one does to test the prudence of a prior decision, as long as the calculations do not use hindsight information which was not available at the time. The calculations he rejects in my initial rebuttal testimony do not do that.

Second, Dr. Rearden argues that neither CERA nor North Shore provide any probability assessment of the likelihood of the CERA scenarios.[2] This is also true but not a sufficient reason for rejecting their use. CERA obviously regarded them as reasonable possibilities that they would advise their clients to consider. Substantial evidence was available indicating that basis prices into Chicago had been falling and were likely to continue to do so in the future, due to entering pipelines. These facts are described in my initial rebuttal testimony. Together, they would have made it very reasonable for a planner using these forecasts to put considerable weight on the scenarios with a larger decline in basis prices, such as CERA's "Market Rules" scenario or the PIRA outlook.

Third, Dr. Rearden noted that CERA provides annual price forecasts rather than monthly forecasts, preventing the CERA numbers from easily being assimilated into an analysis of North Shore's fiscal year. He is also correct about this data limitation, but again, it does not justify ignoring the CERA scenarios altogether. It may not be possible to apply them in a detailed model of GPAA operations, but they certainly represent evidence that the market could develop with much lower average basis prices than are used in Dr. Rearden's analysis.

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1 Additional Direct and Rebuttal Testimony of Dr. Rearden, at p. 16.

2 Ibid.

Q. Did Dr. Rearden acknowledge the possibility that with the faster decline of the Chicago-Henry Hub basis, the GPAA contract could be economical?

A. Yes, Dr. Rearden did not dispute this.[3] However, he does not incorporate this into his recommendation regarding a finding of imprudence, because at p. 17, he states:

> But it is my view that actions – in particular, the Company's decision to sign the GPAA—cannot be shown to be prudent unless the Company can demonstrate through documentary evidence about how it viewed the relative probabilities of different events.

Q. Do you agree?

A. No. I do not disagree that having a broad set of planning studies is often useful, but as I explain later, Dr. Rearden is largely complaining about the way the company analyzed and documented its plans, not the merits of the plans themselves.

Q. Do you agree with the way Dr. Rearden revised his analysis of the prospective benefits of the GPAA utilizing field prices?

A. No. Dr. Rearden relies on the basis price quotes that Mr. Rodriguez used. However, I find two areas of disagreement with how Dr. Rearden used this data. First, on reviewing his work papers, I find that his updated analysis contains a computational error that significantly impacts his results. Specifically, Dr. Rearden has accidentally used the Ventura field price in his calculation of the delivered cost of gas from Harper. The effect of this reversal is that Dr. Rearden has used too low a field price for Harper, a mistake which is magnified by the fact that the Harper volumes comprise a large share

[3] Ibid., at p. 15.

of the total delivered gas to North Shore. Correcting this error reduces the cost disadvantage for this element of the GPAA by about $1.7 million.

Second, the field-area basis prices he uses will tend to understate the actual field prices, since those areas are not as liquid as the larger trading hubs (like in Chicago or at Henry Hub). Significant purchases at those locations are likely to entail an additional cost beyond what is captured by the basis quotes surveyed by North Shore, as discussed further in the additional testimony by company witness Mr. Dave Wear. In fact, one sheet of the spreadsheet model by Mr. Rodriguez from which Dr. Rearden takes his basis outlooks, includes a liquidity premium of 1.5 cents at the field locations, but Dr. Rearden’s analysis overlooks or excludes that premium.

Accordingly, I have adjusted Dr. Rearden’s delivered price versus city-gate price analysis to account for this illiquidity at the field locations, by applying a liquidity premium equal to 0.5% of the Henry Hub price. (A premium of 0.5% equates closely to a 1.5-cent premium at the market prices Dr. Rearden analyzes.) Accounting for the liquidity premium reduces Dr. Rearden’s estimate of the delivered price versus city-gate price cost disadvantage by another $1.0 million. The combined effect of these two corrections is to bring his calculated delivered price versus city-gate cost disadvantage down from $5.6 million to $2.9 million, as shown in Exhibit FCG-AR1. Also in Exhibit FCG-AR1, I show for each scenario the per MMBtu discount that would be required to compensate for any cost disadvantage that arises solely from the delivered price versus city-gate element of the GPAA. For example, if Dr. Rearden’s (uncorrected) analysis of a $5.6 million cost disadvantage was assumed to be correct, then it would imply that a discount to North Shore of 7.8 cents would be needed to remove the delivered price versus city-gate cost disadvantage in its entirety, versus the [redacted] discount already in the contract.

Q. With these corrections, do you interpret Dr. Rearden's analysis as showing the GPAA was imprudent?

A. No, I do not. Other market outlooks, such as the CERA and PIRA forecasts I presented in my prior rebuttal testimony, show clearly that there was reason to believe steeper declines or lower basis values than Dr. Rearden has modeled were possible and plausible. My exhibit FCG-AR2 compares the average annual basis levels in Dr. Rearden's analyses to the bases in each of the few CERA scenarios and to the PIRA scenario. For instance, the basis in CERA's Market Rules Scenario averages $0.06/MMBtu less than the basis used by Dr. Rearden.

While it is difficult to map this annual data into the monthly details of the GPAA, it is qualitative evidence that the GPAA could be more attractive than the (corrected) analysis by Dr. Rearden suggests.

DR. REARDEN'S DISALLOWANCE CALCULATIONS ARE FLAWED BECAUSE HE DOES NOT CONSIDER WHAT ALTERNATIVE GPAA TERMS HE WOULD HAVE DEEMED PRUDENT.

Q. Assuming the Commission were to agree with Dr. Rearden, has he appropriately calculated the disallowance that should be applied by the Commission?

A. No, I do not believe so. His calculations involve comparing the costs that would arise with and without the GPAA. But prudence is not a black-and-white, all-or-nothing attribute of a decision. If a decision is not prudent, there is typically a modified decision or variation on the chosen plan which would have been prudent. A utility should only be penalized for the gap between what it chose and what would have been prudent. Dr. Rearden does not address the question of what alternative terms and conditions would have made the GPAA acceptable. However, my Exhibit FCG-AR3 does provide this information.

The last row of this exhibit is the additional city-gate, first of month discount (on top of the GPAA's [redacted]) that would have been necessary to make the scenario in that column an *ex ante* breakeven in a planning study of the GPAA, compared to continued transportation management and supply procurement by North Shore. It is hard to imagine that the Commission or most interveners would have challenged the GPAA, e.g., if it had been presented in 1999 with a discount of 8.3 cents below city-gate prices ([redacted] that was actually negotiated)! And that is a very stiff test of prudence, since this is the size of the FOM city-gate discount that would be sufficient to make all of Dr. Rearden's uncorrected GPAA cost disadvantages be eliminated. If the Commission felt, as I do, that some weight should be put on the CERA and PIRA outlooks, as well as the structural changes occurring for pipelines into Chicago, then a much smaller discount would have been required to make the GPAA a breakeven. Since the actual discount was [redacted], the GPAA should only be penalized, if found imprudent, for the gap between the required discount and [redacted]. That is the amount of increased costs/MMBtu borne by the company relative to having entered a contract with sufficiently better terms to be deemed prudent. That amount should be multiplied by the first of month volumes actually taken in the reconciliation period to determine the corresponding disallowance quantities.

Q. Have you calculated how much those amounts would be?

A. I have done so for Dr. Rearden's analysis, with and without corrections, and the resulting amounts are shown in the last column of FCG-AR4. As shown, the adjustments associated with marking the GPAA to breakeven discounts ranges from an $855,000 disallowance (offsetting Dr. Rearden's uncorrected GPAA cost disadvantage) to a $344,000 disallowance after the corrections. In contrast, Dr. Rearden has requested a $1.7 million disallowance for this period. Of course, these calculations are only applicable if Dr. Rearden's single-scenario analysis is all the Commission considers in deciding prudence. If it should regard his criticism as too strong, e.g., such that a 4 cent discount (instead of a [redacted] discount) would have been prudent, the corresponding disallowance would be $271,000 this year.

Q. What explains the difference between the $855,000 you would calculate if Dr Rearden's uncorrected scenario was given full weight, versus the $1.7 million he proposes?

A. His disallowance calculations treat all of the anomalous results of the 2000/2001 reconciliation period to be attributable to the GPAA – the extent to which basis increased rather than decreased, the value of the supplier options, and so forth. For instance, he finds (in his Exhibit 7.05) that $0.5 million of disallowance should ensue from the adverse basis prices in January of 2001. There are two problems with this. First, had the company entered a modified GPAA at an 8.3 cent discount to the city-gate prices, it still would have experienced some adverse costs in that month, when the bidweek basis from Henry Hub to Chicago increased dramatically from $0.12/MMBtu in December 2000 to $0.96/MMBtu in January 2001. The daily basis behaved similarly, e.g., during the last ten days of December it ranged from $0.43/MMBtu to $5.22/MMBtu. Exposure to such a striking event was inevitable under the GPAA, even if it had modified terms that were expected to reduce costs more than it already does in most situations. Second, the basis prices in December and January did not involve a situation that was foreseeable or that should have been included in any prudence analysis of the merits of the GPAA. Indeed, Mr. Rearden himself does not include a bizarre January basis spike in his own critique of the GPAA. Instead, he uses Mr. Rodriguez’s basis outlook, which is much smoother.

Q. Please summarize your views of Dr. Rearden’s GPAA analysis.

A. Dr. Rearden has performed a type of *ex ante* analysis which is an appropriate input to a prudence review. However, I believe he has relied too heavily on a single analysis which does not appear to have been the foundation for the company’s view of the GPAA. He neglects the possibility of scenarios more favorable to the GPAA, largely because the company itself did not formally analyze such alternatives. However, that is not an appropriate basis for assessing the prudence of decisions, even if it might be an important factor in auditing the quality of a company’s planning processes. I believe reasonable people, using a more complete set of then-available information, could have easily concluded that the GPAA looked promising and prudent, albeit not a sure thing. Even accepting Dr. Rearden's narrow test of prudence, his recommended disallowance calculations go too far, by failing to consider what alternative parameters of the GPAA would have made it prudent by his tests.

WITNESS REARDEN CONFUSES CRITICISMS OF NORTH SHORE'S PLANNING PROCESSES WITH CRITICISMS OF ITS PLANS.

Q. Dr. Rearden contends that it was imprudent for North Shore to enter into the GPAA without more formal quantitative analysis by the company demonstrating the economic value to ratepayers. In your prior rebuttal testimony, you rejected this view. Do you see any new evidence in their additional testimonies to change your opinion?

A. No, my conclusion remains the same. At the heart of the GPAA contract is the delivered vs. city-gate cost tradeoff. The planning staff and management at North Shore are experienced industry analysts with seasoned intuitions about impending changes and emerging conditions in the industry. Relying on their industry knowledge, North Shore's management chose a city-gate procurement strategy that would provide economic value if pipeline supply imbalances were to shift towards Chicago. As argued in my rebuttal testimony (p. 44),

> Having such an analysis [formal quantitative analysis] would make it now easy for North Shore to show that they were not unreasonable (because benefits were likely) or imprudent, but they could have had such confidence without the calculations.

Much of this criticism about the extent of quantitative analysis by North Shore is really a complaint about the company's planning techniques and documentation, not about the merits of the plan(s) it chose. If this is a problem, it is a different one than the prudence of the GPAA.

The fact that the company did not prepare a large set of planning studies does not undermine the conclusion that a prudent planner could have reached the same decision as the company, namely to enter the GPAA. If there is a problem with the company's planning processes, then the remedies are much different than disallowing some of the costs of the plans themselves. Instead, the focus should be on requiring new procedures and documentation.

THE CATASTROPHIC FAILURE OF ENRON CORPORATION SHOULD NOT TAINT A REVIEW OF THE GPAA.

Q. What is the relevance of Enron's failure to this proceeding?

A. Shortly after the reconciliation period, Enron Corporation, North Shore's counterparty in the GPAA, went bankrupt in the wake of revelations of fraudulent financial representations, lack of credit, and mismanagement. That collapse was startling and dramatic, but it was also completely unforeseen a year or more prior to the collapse. At the time the GPAA was signed, Enron was widely regarded as the premier energy marketing company in the world, and North Shore reasonably assumed that Enron was a reputable counterparty.

Q. Does that conclude your testimony?

A. Yes it does.