Exhibit No.:	
Issues:	*Purchasing Practices-Eastern System; Purchasing Practices-Southern System; Reliability Analysis*
Witness:	*Lesa A. Jenkins*
Sponsoring Party:	*MoPSC Staff*
Type of Exhibit:	*Direct Testimony*
Case Nos.:	*GR-2000-520 & GR-2001-461 (Consolidated)*
Date Testimony Prepared:	*October 24, 2002*

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

DIRECT TESTIMONY

OF

LESA A. JENKINS

AQUILA NETWORKS
D/B/A MISSOURI PUBLIC SERVICE

CASE NOS. GR-2000-520 AND GR-2001-461
(Consolidated)

Jefferson City, Missouri
October 2002

****Denotes Highly Confidential Information****

NP

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Aquila Networks-MPS' Purchased Gas Adjustment Factors to be Reviewed in its 1999-2000 Actual Cost Adjustment	))))	Case No. GR-2000-520
In the Matter of Aquila Networks-MPS' Purchased Gas Adjustment Factors to be Reviewed in its 2000-2001 Actual Cost Adjustment	))))	Case No. GR-2001-461

AFFIDAVIT OF LESA A. JENKINS

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Lesa A. Jenkins, being of lawful age, on her oath states: that she has participated in the preparation of the following Direct Testimony in question and answer form, consisting of 12 pages to be presented in the above case; that the answers in the following Direct Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of her knowledge and belief.

Lesa A. Jenkins

Lesa A. Jenkins

Subscribed and sworn to before me this 23RD day of October 2002.

Toni M Charlton

TONI M. CHARLTON NOTARY SEAL NOTARY PUBLIC STATE OF MISSOURI

TONI M. CHARLTON
NOTARY PUBLIC STATE OF MISSOURI
COUNTY OF COLE
My Commission Expires December 28, 2004

TABLE OF CONTENTS

DIRECT TESTIMONY OF

LESA A. JENKINS

CASE NOS. GR-2000-520 AND GR-2001-461

(CONSOLIDATED)

DIRECT TESTIMONY

OF

LESA A. JENKINS

AQUILA NETWORKS - MPS

CASE NOS. GR-2000-520 AND GR-2001-461

(CONSOLIDATED)

Q. Please state your name and business address.

A. Lesa A. Jenkins, P.O. Box 360, Jefferson City, MO 65102

Q. By whom are you employed and in what capacity?

A. I am a Regulatory Engineer in the Procurement Analysis Department with the Missouri Public Service Commission (Commission).

Q. Please describe your educational and professional background.

A. I received a Bachelor of Science degree, with honors, in Industrial Engineering from University of Missouri – Columbia. I received a Master of Business Administration from William Woods University. Since March 1993, I have been registered as a professional engineer in the state of Missouri. I am currently a member of the Society of Women Engineers, National Society of Professional Engineers and the Missouri Society of Professional Engineers. Prior to joining the Commission, I was employed by the Missouri Department of Natural Resources (DNR). While employed with DNR I held various engineering and then management positions with the Division of Energy from February 1992 - October 1999 and was employed as an environmental engineer with the Division of Environmental Quality from January 1988 - January 1992. Prior to that I was employed by Procter & Gamble in various production and quality control/quality assurance team manager positions in Cape Girardeau, Missouri and then in Cincinnati, Ohio. I began employment in my current position with the Commission in November 1999.

Q. What has been the nature of your duties at the Commission?

A. The nature of my duties at the Commission has been to investigate and review natural gas reliability/peak day plans of the ten natural gas local distribution companies for the reasonableness of the assumptions for estimating demand requirements, analysis of the companies' estimating tools, review and analysis of transportation capacity/storage/peaking/ supply resources utilized by the companies, review and analysis of company base load requirements and other requirements, and review and analysis of the rationale for the companies' reserve margins–capacity in excess of the requirements estimated to be needed for peak day requirements. I also assist in matters involving analysis of economic dispatch models, gas supply plans, incentive plans, hedging plans and service area expansions.

Q. Have you previously filed testimony before this Commission?

A. I have not. I have prepared 28 reliability reviews as part of the filed Staff Actual Cost Adjustment (ACA) recommendations since November 1999.

Q. What is the purpose of your direct testimony?

A. My direct testimony will address issues related to the proposed Purchasing Practices adjustment for the Eastern System and Southern System of Aquila Networks – MPS (MPS or Company). The direct testimony of Staff witness Phil S. Lock provides a summary of the Purchasing Practices adjustment identified in Staff's ACA recommendation for Case No. GR-2001-461 that was filed on July 9, 2002. In that recommendation it is stated that Staff believes that 30% of normal requirements, as a minimum level of hedging for each month of November 2000 through March 2001, is reasonable. My testimony provides support for 30% of normal requirements as a minimum level of hedge for the winter of 2000-2001. My testimony also provides support for the proposed purchasing practices adjustment for the Southern System.

<u>PURCHASING PRACTICES-EASTERN REGION</u>

Q. How did Staff calculate normal usage?

A. In the Company's reliability review, natural gas usage was evaluated to obtain an estimate of base load usage and heat load usage of the Company's firm customers. Base load usage represents customer usage that is not expected to vary with the outside temperature such as usage for cooking, some commercial and industrial processes and most water heating. Heat load usage represents customer usage that does vary based on outside temperature, such as space heating. The heat load for a particular temperature is estimated by taking the heating degree days (HDD), a measure of how cold a location is relative to a base temperature of 65 degrees Fahrenheit, times a heat load factor. Using the Company's estimate of base load usage and heat load factor from the Company's reliability review, the Company's estimate of growth and normal temperatures for the winter months of November through March, Staff estimated normal usage for each of these winter months of November 2000 to March 2001.

Q. Did the Company provide an estimate of normal usage?

A. Yes. In the response to Data Request No. JH43 (DR), the Company provided a separate estimate of normal usage for these months. Staff compared these two estimates (one from the Company reliability review and one from the DR response) of normal usage and, because the difference between these was not unreasonable, Staff accepted the Company estimate of normal usage from the DR-JH43 response.

Q. Please explain why Staff believes that 30% of normal requirements, as a minimum level of hedging for each month of November 2000 through March 2001, is reasonable.

A. Because of price volatility in the natural gas market, Staff believes that it is reasonable to expect that the Company would have engaged in a minimal level of hedging for the winter months of the 2000-2001 ACA review period so that the customers are at least partially protected from the potential for rising prices. The Company hedged no volumes of natural gas for the Eastern System for the winter of 2000-2001. There were no fixed price natural gas purchases, no storage and no other hedges for the Eastern System for the winter of 2000-2001. When a Company relies entirely on index-based pricing there is no protection for customers from exposure to rising prices, and this would be even more of a concern when the weather is cold because customers use more natural gas and pay more per unit consumed.

Usage in the winter months of November through March is expected to be higher than just the base load usage because each month has daily average temperatures below 65 degrees Fahrenheit, and thus each of these months also has heat load usage. Staff evaluated what could be expected as the minimum usage for each month of November 2000 through March 2001 by using the Company's estimate of base load usage; heat load factor and warmest month temperatures for these months; and the Company's estimate of growth. Staff also evaluated the anticipated maximum usage for each month of November 2000 through March 2001 by using the Company's estimate of base load usage; heat load factor and coldest month temperatures for these months; and the Company's estimate of growth. Staff believes that it is necessary for a Company to consider the minimum and maximum monthly usage information to properly plan for the volumes of natural gas and types of contracts (base load, swing, storage, etc.) necessary to meet customer requirements. See Schedule 1 attached to this direct testimony, for a summary of estimated winter month usage for base load, 30% of normal, warmest month, normal month, and coldest month. See Schedule 2 for a summary of warmest, coldest, normal, and actual heating degree day information.

It could be argued that to mitigate price risk to customers, 100% of warm month requirements should be hedged because, even for the warmest temperature, customer demand would be at the warmest month usage shown in Schedule 1. A review of Eastern System information reveals that if the Company hedged volumes required for a warmest winter month, then for a cold winter, 52% of volumes would be hedged, and thus customers would be exposed to price risk for 48% of volumes required. To allow some level of error in the Company's estimate of base load and heat load usage, and to allow the Company some flexibility in managing the price risk in warm weather (potential for falling prices), Staff does not propose that 100% of the warmest month volumes be hedged for the 2000-2001 ACA period.

Q. How does Staff's proposal of 30% of normal compare to a warm winter and a cold winter?

A. The Company provided information to Staff based on planning for normal weather, so in the Staff recommendation, Staff expressed the hedging volumes as a percentage of normal requirements. For the Eastern System, 100% of base load usage and 33% of warmest month heat load usage must be hedged to cover 30% of normal requirements. Staff's review shows that hedging volumes for 30% of normal requirements means that for a cold winter, only 21% of required volumes would be hedged and thus 79% would not be hedged and customers would be exposed to price risk for these volumes. Staff could not reasonably justify hedging less than 30% of normal requirements, because this implies that for a cold winter, more than 79% of customer natural gas requirements would be exposed to price risk.

Q. Since the Eastern System is a small system, could this have prevented the Company from providing hedging to address customer exposure to rising prices?

A. The Eastern System is a small system with approximately 4,300 customers. The interstate pipeline serving this area is the Panhandle Eastern Pipeline Company (PEPL). However, the Eastern System is part of a larger company. In Missouri, the Company has approximately 32,000 customers on the Southern System and approximately 11,200 customers on the Northern System. As a larger Company, MPS has more options for hedging. Additionally the Company could have pursued fixed price natural gas supplies or storage for the Eastern System to address the potential for volatile prices.

Q. What is the Eastern System Adjustment?

A. The proposed adjustment is $197,771 and is shown in Schedule 3.

Q. Does this conclude your testimony for the Eastern System adjustment?

A. Yes, it does.

PURCHASING PRACTICES-SOUTHERN SYSTEM

Q. Please explain the Staff adjustment for the Southern System.

A. Staff believes that the Company should have reasonably avoided much of its exposure to the higher storage costs beginning in January 2001 by developing and following a reasonable plan for using flowing gas and storage withdrawals for each of the winter months of November 2000 through March 2001.

Q. Why does Staff believe that the Company plan for flowing supplies and storage withdrawals was unreasonable?

A. ** HC
HC
HC
HC
HC
HC
HC
HC
HC ** Staff would also expect that the design day forecast would be the same as the Company's estimate for usage for normal weather, unless there were specific weather forecasts that caused the Company to make changes to this plan.

In the Data Request No. 73 response (Schedule 5) the Company includes spreadsheets for each winter month showing WNG requirements for each month, but a review of these WNG requirements shows that they are only 56% to 67% of the Company "DD Forcst" shown on the same spreadsheet. A review of the actual natural gas purchases shows that the Company uses base load flowing supplies, term flowing supplies, swing flowing supplies and storage to meet actual customer requirements. It is Staff's understanding that the Company defines base load supplies as volumes fixed for a period of 30 – 31 days, term supplies as volumes fixed for a period of greater than 30 days, and swing supplies as volumes set for a period of less than 30 days; the volume of swing supplies could vary on a daily basis.

Staff believes that it is reasonable to expect the Company to have sufficient base load and term flowing supplies scheduled to cover warm weather requirements for November through January, and that these would be adjusted beginning in December if the Company had withdrawn more or less storage than planned. Staff expects that storage and swing supplies would be used for colder days.

Q. Please continue.

A. In Data Request No. 67 Staff requested, for the Company nomination process, the policy and procedures in place for a period of colder than normal weather. The Company response to DR67 (Schedule 6) states that the Company's Gas Supply did not have "technically written details/policies/procedures in place in January 2001." Staff believes that the Company failed to adequately plan for anything but normal weather because no written guidelines were in place on how to adjust first-of-the-month nominated supplies when weather is colder or warmer than normal.

Q. How would Staff have expected the Company to utilize storage and flowing supplies to meet customer needs?

A. As stated previously, Staff would expect the Company to plan on base load and term supplies to cover warmest month requirements for November. Staff would then expect the Company to revise first-of-month nominations for December and January to cover warmest month requirements, adjusted up or down based on whether storage had been over-or under-utilized to-date. Staff's adjustment is made based on what Staff believes are reasonable guidelines for first-of-the-month nominations.

Staff's review of the Company decisions shows that for the month of November 2000, the Company did not plan on and nominate enough base load and term gas to cover even warm month requirements (natural gas requirements for warmest November weather). Thus, the Company would have to use storage and/or swing supplies for even warm weather. If the Company had planned on base load and term gas to cover warmest month requirements, then less storage withdrawals would have been necessary in November 2000. ** HC ______ HC ______ HC ______ ** However, Staff would have expected the Company to have planned on even more base load or term supplies to adjust for over-utilization of storage withdrawals in November 2000. A higher level of base load and/or term nominated supplies would have resulted in lower storage withdrawals for December 2000.

Q. Wouldn't Staff expect greater utilization of storage in cold weather?

A. Yes. Due to the cold weather experienced in November and December 2000, Staff would expect storage to be used more than in normal weather conditions, but by planning for adequate volumes of base load or term natural gas supplies to meet warm month requirements for November and December, the remaining storage inventory at the end of December would have put the Company in a more reasonable position for the winter months to come. This would have reduced the price risk exposure of the Company's customers for the remaining winter heating season months. In any event, Staff expects the Company to have guidelines on use of storage and use of swing purchases so that sufficient storage volumes are available for cold weather that could be encountered later in the winter.

Q. Please continue with your explanation of the adjustment.

A. Even though the month of January 2001 had near normal temperatures, the Company actually had a large net injection of natural gas into storage for that month. Staff requested information about the storage injections in January 2001. In the Company response to Data Request No. 70(1) – (3), (Schedule 7), the Company states that due to storage levels being lower than planned going into the month of January, the Company planned to purchase enough flowing gas to cover planned usage and they did not plan to withdraw or inject gas in January. The Company states that setting up for January 2001 (in late December), the six – ten day weather projections were still for colder than normal temperatures. However, the Company provided no support for this statement.

As illustrated by the storage plot for the Southern System in Schedule 8, the Company had pulled more natural gas from storage than planned by the end of December 2000. However, the Company still could have withdrawn natural gas from storage in January 2001 and maintained the Company's planned level of storage for the remaining winter months. Instead, the Company nominated more flowing natural gas – base load, term, and swing purchases-and consequently needed to inject a large volume of this natural gas into storage in January 2001 because it was much greater than actual requirements for January 2001. This was done at a time when gas costs were very high.

For February 2001, Staff would have expected nomination of less base load or term supplies to reflect under-utilization of storage at the end of January 2001.

Q. How did Staff use this information in the proposed adjustment for the Southern System?

A. Using the parameters described above, Staff calculated the adjusted storage withdrawal numbers. The actual dollar adjustment using these revised storage volumes is

$1,010,503 and is shown in Schedule 9. The calculation and dollar amount of the adjustment for these revised storage volumes is included in the direct testimony of Staff witness Lock.

Q. In the Company Response to Staff Memorandum and Recommendation, the Company states that the Staff recommendation improperly seeks disallowance based on hindsight review. Is this true?

A. No. The Staff adjustment is based on analysis of decisions made by the Company for first-of-the-month flowing supplies and how these decisions affect the planned and actual utilization of storage based on information known at the time the Company made the decisions. Staff believes the Company should have considered minimum month requirements for warmest weather for November 2000 through January 2001, which are volumes that the Company could have easily estimated. Additionally, Staff believes that the Company did not properly adjust first-of-the-month nominations based on what it knew about storage inventories as the winter months progressed. This is information that the Company knew or should have known when first-of-the month nominations were made, and thus is not hindsight review.

Q. Does that conclude your testimony on the Southern System proposed purchasing practices adjustment.

A. Yes, it does.

RELIABILITY

Q. Do you have any other issues?

A. Yes. The Staff recommendation in the consolidated cases, Case Nos. GR-2000-520 and GR-2001-461, that were filed on July 9, 2002 also contained recommendation 4a through 4f related to actions to be taken by the Company by

November 1, 2002 related to the Company's reliability analysis. In the Response to Staff Memorandum and Recommendation filed August 12, 2002, the Company states that MPS does not object to providing the information requested by Staff in Recommendation 4a-4f.

Q. Does this conclude your direct testimony?

A. Yes, it does.

Schedules 1, 3, 4, 5, 6, 7, 8 & 9

Deemed

Highly Confidential

In Their Entirety