

*Exhibit No.:*

*Issues: Northern System Storage;  
Purchasing Practices-Eastern  
System; Purchasing Practices-  
Southern System; Deferred  
Carrying Cost Balance; Puts  
and Calls*

*Witness: Phil S. Lock*

*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**

**PHIL S. LOCK**

**AQUILA, INC.**

**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**

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

STATE OF MISSOURI                    )  
  )  
COUNTY OF COLE                    )                    ss.

Phil S. Lock  
Phil S. Lock

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

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**DIRECT TESTIMONY OF**

**PHIL S. LOCK**

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

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**DIRECT TESTIMONY**

**OF**

**PHIL S. LOCK**

**AQUILA, INC.**

**d/b/a MISSOURI PUBLIC SERVICE**

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

**(CONSOLIDATED)**

Q. Please state your name and business address.

A. Phil S. Lock, 200 Madison Street, Jefferson City, MO 65101.

Q. By whom are you employed and what is your position?

A. I am a Regulatory Auditor III with the Missouri Public Service Commission (Commission).

Q. Please describe your educational background and experience.

A. I attended Central Missouri State University at Warrensburg, Missouri, and received a Bachelor of Science degree in Business Administration, with a major in Finance in May 1980, and a major in Accounting in December 1986. Since November 1996, I have been accredited as a Certified Government Financial Manager.

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

A. From 1987-1993, I conducted rate case audits under the direction of the Chief Accountant of the Commission's Accounting Department. From 1993 to the present, I have, under the direction of the Manager of Procurement Analysis, conducted audits and examinations of the books and records of gas utility companies operating within the state of Missouri.

Q. Have you previously filed testimony in cases before this Commission?

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1           A.     Yes. I have filed written testimony in Case No. TR-87-25, Grand River Mutual  
2 Telephone; Case No. GR-89-48, Kansas Power and Light Company; Case No. GR-90-84,  
3 St. Joseph Light and Power Company; Case No. GR-90-152, Associated Natural Gas Company;  
4 Case No. GR-92-21, United Cities Gas Company; Case No. GR-92-165, Laclede Gas Company;  
5 Case No. GR-93-47, United Cities Gas Company; Case No. GR-93-149, Laclede Gas Company;  
6 Case No. GR-94-328, Laclede Gas Company; Case No. GA-97-132, Missouri Public Service;  
7 Case No. GA-97-132, Missouri Public Service; Case No. GR-99-435, Missouri Public Service;  
8 and Case No. GM-2001-585, Gateway Pipeline. I have also prepared numerous Actual Cost  
9 Adjustment (ACA) recommendations since 1993.

10          Q.     What is the purpose of your direct testimony?

11          A.     My direct testimony will identify and address the issues raised by the Company in  
12 its response to Staff's ACA recommendation that was filed on July 9, 2002. The primary focus  
13 of my direct testimony will be on issues still in dispute between the Company and Staff.

14          Q.     Please identify those issues.

15          A.     The contested issues are Northern System storage; Purchasing Practices – Eastern  
16 System; and Purchasing Practices – Southern System. The Staff will also address the issue of  
17 Deferred Carrying Cost Balance (DCCB) and Puts and Calls.

18 **DEFERRED CARRYING COST BALANCE**

19          Q.     Please describe Company's position on the DCCB issue.

20          A.     The Company has agreed to forego carrying costs (interest) associated with the  
21 DCCB from March 2001 to August 2001 and not to defer these costs into the future. This issue  
22 has, therefore, been agreed to by the parties. Adjustments relative to carrying costs from  
23 September 2000 to February 2001 have already been agreed to by the parties.

**PUTS AND CALLS**

Q. Please describe the status of the Puts and Calls issue.

A. The Company and Staff have agreed to split the difference between the Company and Staff, 50/50. Differences remain on the Southern System only. With the complexity of this issue and the litigation expense associated with this adjustment (\*\* HC \*\* difference between the Staff and Company), Staff believes that it is appropriate and equitable to accept an adjustment of \*\* HC \*\*. This will reduce the cost of gas by \*\* HC \*\* on the Southern System. This is in addition to the current adjustments proposed by the Company on the Southern System. Staff also agrees with all adjustments proposed by the Company on the Northern and Eastern Systems. Staff has compiled a worksheet (attached as Schedule 1 to this testimony) that includes an adjustment summary of all Put/Call activity for the 1998-1999, 1999-2000 and 2000-2001 ACA periods. The Company has agreed to include the adjustments contained in Staff's summary schedule in its 2002-2003 winter purchased gas adjustment (PGA) filing.

**NORTHERN SYSTEM STORAGE**

Q. Please describe Staff's adjustment for MPS's Northern System storage.

A. The Staff believes that the prior month weighted average cost of gas (WACOG) (February 2001 WACOG) should be applied to March 2001 storage withdrawals in the same manner storage withdrawals were priced from November 2000 to February 2001 by the Staff. (WACOG is a method of pricing out storage inventory). This results in withdrawal costs of \$119,168 for the month of March. The Company applied the March-ending WACOG to the March storage withdrawals. This results in withdrawal costs of \$144,013 for the month of March. Further review by the Staff indicates that storage withdrawals were made prior to

1 injections during the month of March 2001. The net effect is a \$24,845 reduction in gas costs for  
2 the month of March 2001. Staff proposes a total reduction of \$28,830 on the Northern System to  
3 reflect the revised storage withdrawal rates. In addition, the Staff believes that it may be  
4 necessary for the Company to restate its inventory schedule for the Northern System to the extent  
5 that storage costs are adjusted in this 2000-2001 ACA case.

6 Q. Please explain the difference between Staff's total adjustment of \$28,830 and the  
7 \$24,845 related to March 2001 costing issue.

8 A. The difference is mainly attributed to the components used in determining the cost  
9 of storage transportation. This occurred during the months of November 2000 to January 2001.

10 Q. What effect does the proposed withdrawal cost difference between the Staff and  
11 the Company have on the overall cost of gas?

12 A. The difference represents a timing adjustment. The overall cost of gas will  
13 decrease in the 2000-2001 ACA period but will increase thereafter when all the remaining gas is  
14 cycled out of storage. The timing effect is no different from a PGA change. The ultimate goal is  
15 to provide a more timely effect of changes in the cost of gas.

16 Q. In the Company's response to Staff's ACA recommendation, the Company  
17 contends that Staff is changing its pricing methodology for one month of the year (March 2001).  
18 Is this true?

19 A. No. As explained earlier, the Staff believes that the prior month weighted average  
20 cost of gas should apply to the current month withdrawal in March 2001. This is consistent with  
21 the pricing methodology applied by the Staff during the period of November 2000 to February  
22 2001. March 2001 includes injections and withdrawals whereby November 2000 to February  
23 2001 includes only storage withdrawals.

**PURCHASING PRACTICES – EASTERN SYSTEM**

Q. Please explain why Staff proposed a Purchasing Practice adjustment for the Company's Eastern System.

A. As was indicated in Staff's July 9, 2002 ACA recommendation, a portion of the requirements for all three systems (Eastern, Northern and Southern) was to be acquired through fixed-price purchases per the Company's gas purchasing plan. A review of the Company's gas supply purchases for the 2000-2001 winter season, reveals that no fixed priced gas was purchased for the Eastern System. In addition, the Eastern System does not have any contracted storage available as a hedge. \*\* HC

HC \*\* Staff believes that the Company did not effectively manage its supply portfolio to reduce the volatility of gas prices during the 2000-2001 winter season. As a result, customers of the MPS Eastern System were totally exposed to price risks during this heating season.

Q. Please explain how the Company did not effectively manage its supply portfolio during the 2000-2001 ACA period for the Eastern System.

A. First, the Company did not adequately document its gas supply planning process for this ACA period. There also appears to be a lack of checks and balances and safeguards in the gas supply planning process whereby the Company did not follow up on its decision making process in a timely manner.

Q. Please explain Staff's Purchasing Practice adjustment for the Eastern System.

A. Staff proposed an adjustment based on a 30% hedging requirement. Staff believes that the Company should have achieved 30% of its normal requirements, as a minimum level of hedging, for each month from November 2000 through March 2001. The direct testimony of Staff witness Lesa A. Jenkins provides more detail of Staff's proposed 30%



1 hedging requirement. Staff compared the Company's actual monthly-hedged volumes to the  
2 monthly-hedged volumes calculated at 30% of normal requirements. Each month the overage or  
3 shortfall was then multiplied by the difference between the average hedged price and the New  
4 York Mercantile Exchange (NYMEX) closing price. Staff proposes a hedging adjustment of  
5 (\$197,771) to reflect the Company's hedging activity shortfall during the 2000-2001 ACA  
6 period.

7 Q. Please describe the pricing methodology proposed by the Staff.

8 A. The monthly hedged price was determined by averaging the daily price of gas,  
9 using NYMEX closing prices, for each month from June 2000 – October 2000. In this manner,  
10 the monthly average hedged price from June 2000 to October 2000 is used to determine the  
11 monthly average hedged price available from November 2000 – March 2001. The monthly  
12 average hedged price was then compared to the NYMEX closing price for each winter month  
13 (November 2000 – March 2001), which is the indicator of Staff's cost for the heating season  
14 months, to determine the monthly gain or loss.

15 NYMEX is the New York Mercantile Exchange, where energy futures contracts are  
16 traded. The NYMEX closing price is the last official price at which buyers and sellers trade the  
17 underlying commodity for a particular month, in this case natural gas. It occurs three business  
18 days prior to the first calendar day of the futures month (Ex: September 2002 futures expire on  
19 August 28, 2002).

20 Q. How could the Company effectively control the volatility of gas prices for the  
21 winter season?

22 A. Staff believes that the Company could effectively hedge its supply requirement  
23 for the 2000-2001 winter season by purchasing a portion of their gas supply (30% minimum) at

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1 fixed prices during the months of June 2000 to October 2000. Gas prices are generally lower  
2 from June to October than from November to March, but in any event, fixed prices would reduce  
3 the volatility of gas prices for the 2000-2001 winter season and therefore add price protection for  
4 its customers.

5 Q. Does the Company's gas supply plan include hedging or fixed price provisions for  
6 its requirements on the Eastern System?

7 A. Yes. The Company provided to Staff, in its gas supply plan, a monthly forecasted  
8 volume of gas at fixed prices for the Eastern System (and Northern and Southern Systems) that  
9 would occur under normal weather conditions. \*\* HC

10 HC

11 HC

12 HC \*\* Under that scenario, if Staff's  
13 adjustment were to be based on the Company's planned fixed priced purchases, the adjustment  
14 would be significantly greater.

15 Q. \*\* HC

16 HC \*\*

17 A. \*\* HC

18 HC

19 HC

20 HC \*\* requirement  
21 (through fixed price packages) is extremely important to the Company in order to offset the high  
22 cost of gas experienced on the Eastern System. According to the 2000-2001 winter PGA  
23 estimates, the total cost of gas (total PGA) delivered to the Eastern System during the 2000-2001

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1 winter season far exceeded the cost of gas delivered to other Missouri regulated utilities during  
2 this winter period (See Net Cost of Gas - Schedule 2).

3 Q. Why did the Company consider it reasonable to have no hedging position (fixed  
4 priced contracts or storage) prior to the 2000-2001 heating season for the Company's Eastern  
5 System?

6 A. According to the Company, there was an oversight and all fixed priced packages  
7 purchased for the 2000-2001 winter season were only purchased on the Williams Pipeline  
8 (Williams) system. Williams delivers gas to the Company's Southern System customers only.  
9 Panhandle Eastern Pipeline (PEPL) delivers gas to the Company's Eastern System customers.

10 **PURCHASING PRACTICES – SOUTHERN SYSTEM**

11 Q. Please explain Staff's Purchasing Practice adjustment for the Southern System.

12 A. Unlike Staff's proposed adjustment for the Eastern System, Staff's Purchasing  
13 Practice adjustment for the Southern System is based on the Company's use of their storage  
14 contract on Williams Pipeline. Staff believes that the Company did not properly manage their  
15 storage withdrawals for the 2000-2001 winter season. Staff further believes that the Company  
16 had the ability to utilize their storage in January 2001 and still meet their planned storage  
17 inventory requirements.

18 Q. Storage injections were made in January 2001 on the Southern System that  
19 included flowing supply purchases made in December 2000 at a price of \*\* HC \*\*. How did  
20 this occur?

21 A. According to the Company's response to Data Request No. 67, \*\* HC  
22 HC

1 HC

---

2 HC \*\*

3 Q. What effect does the Southern System injection in January 2001 have on the  
4 Company's storage inventory schedule?

5 A. According to the Company's storage inventory schedule, the storage WACOG  
6 increased from \*\* HC \*\*.

7 Q. Explain why Staff proposed an adjustment on the Southern System.

8 A. As described in its 2000-2001 ACA recommendation, Staff believes that MPS  
9 could have avoided its exposure to higher priced storage costs beginning in January 2001 by  
10 following a reasonable approach for planned flowing gas and storage withdrawals for each of the  
11 winter months of November 2000 through March 2001 (see Staff witness Jenkins' direct  
12 testimony for further detail).

13 Q. Please describe the adjustment (calculation) proposed by the Staff for the  
14 Southern System.

15 A. The monthly pricing disallowance or credit was made by taking the difference  
16 between Williams first-of-the-month (FOM) index price and the storage WACOG price. Staff  
17 then determined the monthly storage withdrawal volumes from November 2000 to March 2001  
18 based on normal weather and information obtained from responses to Staff data requests (see  
19 Staff witness Jenkins' direct testimony for greater detail). For each month, the overage or  
20 shortfall in storage withdrawal volumes (expected versus actual) was then multiplied by the  
21 monthly pricing disallowance or credit to determine the storage adjustment by month.

22 Generally, the Staff believes that the storage adjustment should be credited monthly for  
23 actual storage withdrawals that exceed reasonable withdrawals and when the storage WACOG

1 price is less than the FOM price. (Generally, storage gas is obtained at a lower price than the  
2 price obtained for flowing gas purchases during the winter season.) Monthly disallowances are  
3 made if the Company's actual storage withdrawal was less than reasonable and the FOM price is  
4 greater than storage prices. During the months of December 2000 to February 2001, the FOM  
5 price was significantly greater than the storage WACOG price. Staff, therefore, proposes to  
6 reduce the cost of gas by \$1,010,503 on the Southern System.

7 Q. Why is it necessary to restate the storage inventory schedule for Staff's  
8 purchasing practice adjustment on the Southern System?

9 A. As was the case with the Northern System, the Staff believes that it may be  
10 necessary for the Company to restate its storage inventory schedule for the Southern System (to  
11 the monthly WACOG calculated by Staff) to the extent that storage costs are adjusted in this  
12 2000-2001 ACA case. This is necessary because the storage inventory schedule supports the  
13 monthly WACOG (November 2000 – March 2001) proposed by Staff in its purchasing practice  
14 adjustment.

15 Q. What changes does Staff propose to the storage inventory schedule for the  
16 Company's Southern System?

17 A. Because of the Company's decision to forego storage withdrawals in January  
18 2001, a large net injection was made at a time when gas prices were high. This injection caused  
19 the January WACOG to increase by \*\* HC \*\*. Staff does not believe that  
20 storage injections were prudent during the month of January 2001. Staff, therefore, modified the  
21 storage inventory schedule by following a reasonable plan for storage withdrawals for each of  
22 the winter months of November 2000 through March 2001. Staff also believes that storage

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1 injections should be shifted from January 2001 to June, July and August 2001 when storage  
2 injections typically occur.

3 Q. Does this conclude your direct testimony?

4 A. Yes, it does.