

Exhibit No.:

Issues: Natural Gas Pricing, Spot
Purchase Power Pricing

Witness: Jerry G. Boehm

Sponsoring Party: Aquila Networks-L&P

Case No.: HR-2005-0450

Before the Public Service Commission
of the State of Missouri

Surrebuttal Testimony

of

Jerry G. Boehm

**TABLE OF CONTENTS OF
REBUTTAL TESTIMONY OF JERRY G. BOEHM
ON BEHALF OF AQUILA, INC.
D/B/A AQUILA NETWORKS-L&P
CASE NO. HR-2005-0450**

EXECUTIVE SUMMARY.....	1
NATURAL GAS PRICES.....	1
SPOT PURCHASE POWER PRICING.....	3

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI
SURREBUTTAL TESTIMONY OF JERRY G. BOEHM
ON BEHALF OF AQUILA, INC.
D/B/A AQUILA NETWORKS-L&P
CASE NO. HR-2005-0450**

1 Q. Please state your name and business address.

2 A. My name is Jerry G. Boehm. My business address is 10750 East 350
3 Highway, Kansas City, Missouri, 64138.

4 Q. Are you the same Jerry G. Boehm who submitted direct testimony in this case
5 on behalf of Aquila Inc, (“Aquila”) before the Missouri Public Service
6 Commission (“Commission”)?

7 A. Yes.

8 **EXECUTIVE SUMMARY**

9 Q. What is the purpose of your testimony?

10 A. I am providing surrebuttal Natural Gas prices discussed in the rebuttal
11 testimony belonging to Staff witness Charles R Hyneman. I will also provide
12 surrebuttal to the rebuttal testimony of David W. Elliott concerning
13 production modeling methods and spot power market pricing.

14 **NATURAL GAS PRICES**

15 Q. What is your understanding of Mr. Hyneman’s rebuttal testimony?

16 A. Mr. Hyneman appears to be confused with basic terms used in the marketing
17 of natural gas. He misinterprets my direct testimony concerning previous
18 analysis methods used by Aquila. He restates Mr. Choe’s incorrect
19 allegations that the NYMEX is not correlated to actual prices.

1 Q. How does Mr. Hyneman confuse marketing terms?

2 A. Mr. Hyneman's testimony states that Aquila does not purchase gas at the
3 Henry Hub though it uses Henry Hub prices for a reference. His statement
4 pointing has the appearance of trying to demonstrate that this reference is
5 invalid. On the contrary, the markets purpose for using established price
6 points like the Henry Hub is in recognition of its relationship to all other
7 published and private price points.

8 Q. Does Mr. Hyneman make other errors in his understanding of the market?

9 A. Yes. Mr. Hyneman suggests that the basis differential between the mid-
10 continent source and Henry Hub should be *subtracted*. This makes no sense.
11 Since basis differentials are normally stated in reference to an established
12 price point then the basis between Henry Hub and Mid-Continent is most
13 often a negative number. Subtracting the basis would artificially raise the
14 expected price of natural gas at Mid-Continent. Aquila correctly added a
15 negative basis estimate to the Henry Hub price in order to correctly align the
16 price with the Henry Hub.

17 Q. Please explain how Mr. Hyneman misinterpreted your testimony.

18 A. My testimony refers to the use of the NYMEX pricing in the previous rate
19 case. In that case Aquila reviewed numerous sources in establishing a base
20 natural gas strip price. Aquila adjusted a NYMEX Henry Hub price curve to
21 match the derived natural strip price. During the IEC process Aquila
22 proposed a revised Henry Hub curve after reviewing previous sources and
23 NYMEX information.

1 Mr. Hyneman points out correctly that the methods in the previous case and
2 this case are not identical, however the use of the NYMEX Henry Hub price
3 point is still required as is the monthly volatility curve typical of NYMEX
4 prices. For this case Aquila has determined the use of a gas price derived
5 from NYMEX price analysis is an appropriate method. Aquila expects to
6 hedge natural gas costs, therefore present day NYMEX prices more accurately
7 reflect the prices Aquila is paying. The trends shown in Mr. Choe's rebuttal
8 Schedule 2 and Mr. Hyneman's Schedule 1 indicate that hedging natural gas
9 at present NYMEX prices may save money compared to future spot prices.
10 Mr. Hyneman's table appears to lend support to the evidence in Mr. Choe's
11 graph that shows Aquila's Natural Gas prices may be too low. He provides no
12 explanation as to why the Staff's prices are even lower than Aquila's.
13 Q. In his rebuttal did Mr. Hyneman provide any support for Staff's method of
14 determining Natural Gas Prices?

15 A. No.

16 **SPOT PURCHASE POWER PRICING**

17 Q. What is your understanding of Mr. Elliot's rebuttal testimony?

18 A. Mr. Elliott is concerned that the purchase power market is incorrectly
19 modeled due to capacity size and constraints on purchase power modeled as
20 contracts. Mr. Elliott also questions the relationship of natural gas prices and
21 purchase power markets.

22 Q. Why is Mr. Elliott concerned with spot market capacity size and availability?

1 A. Mr. Elliott states that the modeling technique of having 900 MW available to
2 buy may be incorrect. In real operating situations there is often 900 MW or
3 more available for purchase. The price of the power, delivery cost, and
4 Aquila's must-run status for certain plants make it uneconomical to buy that
5 amount. The production model is designed to simulate these situations and
6 buy power accordingly. Just like the operators who have 900MW or more
7 available to them the program will only buy power amounts which satisfy
8 economic dispatch conditions.

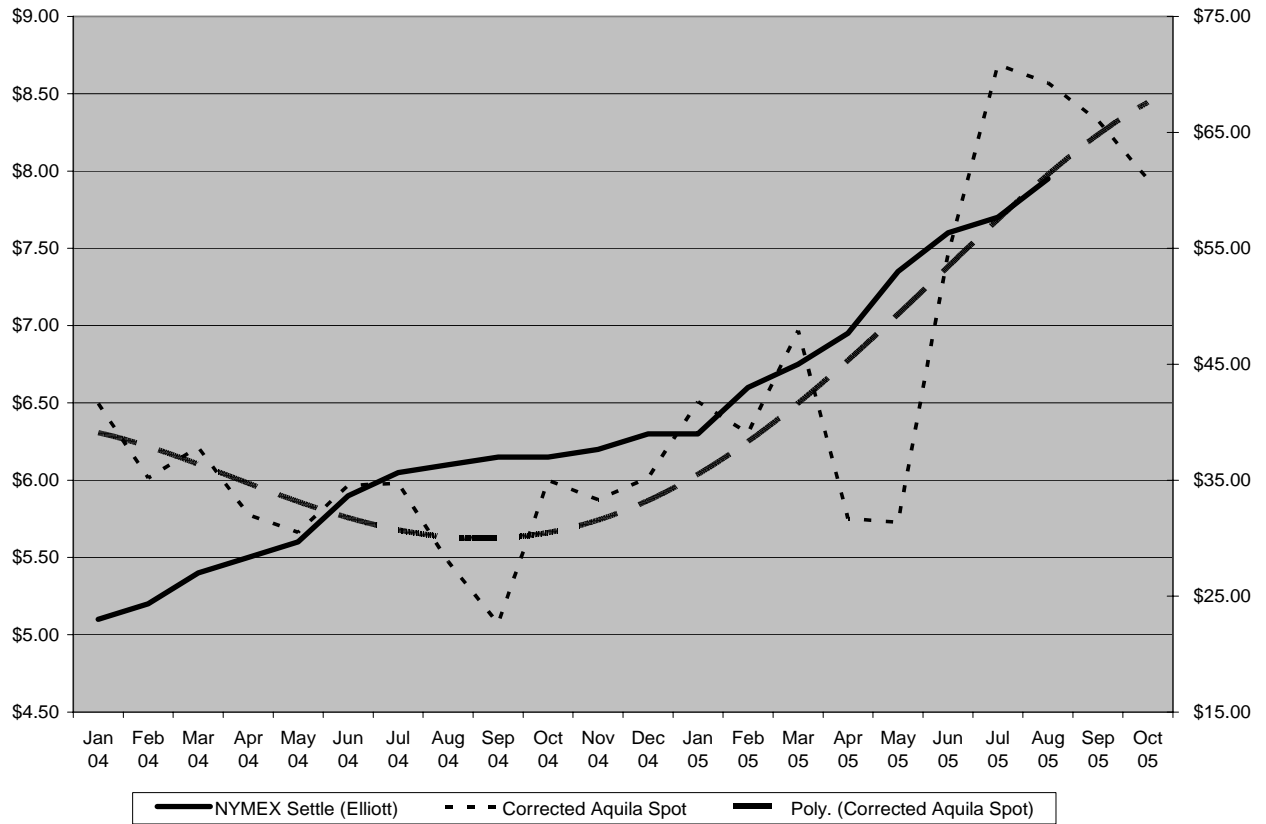
9 Mr. Elliot is also concerned over the technique of modeling purchase power in
10 tiers which have forced outage values. Aquila uses this technique to simulate
11 the price changes in depth of market and the varying nature of transmission
12 availability. As this is a modeling issue Aquila strives to find a method with
13 which Staff is comfortable. These techniques have been modeled in previous
14 cases and discussed with Staff.

15 Q. Do you agree with Mr. Elliot's claim that there is no correlation between spot
16 gas prices and spot market prices?

17 A. No. Mr. Elliot's opinion appears to be based on mistaken analysis. First, he
18 doesn't compare purchase power **prices** with NYMEX natural gas prices he
19 compares purchase power **costs** with NYMEX natural gas prices. He is
20 analyzing a strict subset of the market prices and attempting to infer the entire
21 market. His second error is that he seems to have corrupted his input
22 purchase power cost information with figures that are not representative of
23 Aquila's purchased power.

- 1 Q. Why do you think his cost data are corrupt?
- 2 A. I believe that his data may come from misreading records that Aquila
3 provided to Staff. Those records contain the costs and quantities of spot
4 market purchases and also the costs and quantities of Aquila's own generation
5 that is transported from other dispatch areas. Iatan generation is an example
6 of an Aquila owned source on this form. Purchase power figures are
7 separately available on this form but it appears that Mr. Elliott may have used
8 figures including some of Aquila's generation costs.
- 9 Q. Did Aquila perform a comparison with correct purchase power costs?
- 10 A. Yes. While we still stress that this analysis method is flawed by the fact a
11 market subset is used as a market representation we reviewed Mr. Elliott's
12 analysis with corrected numbers. A graph of the results is attached. Mr.
13 Elliott's NYMEX closing prices were interpolated from his graph and
14 corrected monthly purchase power costs were added. A polynomial trend of
15 the purchase power costs is also shown on the graph. By inspection of the
16 graph it is obvious that the trend of the subset group purchase power costs
17 follows the trend of natural gas.
- 18 Q. In his rebuttal did Mr. Elliott provide any support for Staff's method of
19 determining Purchase Power Prices?
- 20 A. No. Mr. Elliott acknowledged that Staff lacks the necessary software to
21 perform the analysis.
- 22 Q. Does this conclude your surrebuttal testimony?
- 23 A. Yes.

1 - Schedule JGB Surr 1

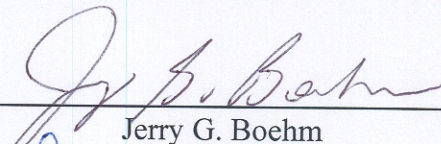


BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

County of Jackson)
)
State of Missouri) ss

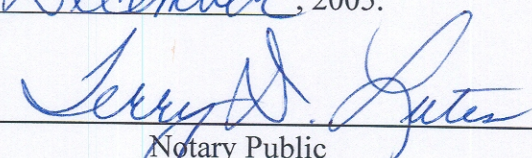
AFFIDAVIT OF JERRY G. BOEHM

Jerry G. Boehm, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Surrebuttal Testimony of Jerry G. Boehm;" that said testimony was prepared by him and under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge, information, and belief.



Jerry G. Boehm

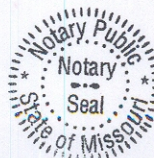
Subscribed and sworn to before me this 13th day of December, 2005.



Notary Public
Terry D. Lutes

My Commission expires:

8-20-2008



TERRY D. LUTES
Jackson County
My Commission Expires
August 20, 2008