

# EXHIBIT

Exhibit No.:

1059

Issue(s):

Natural Gas Costs

Witness/Type of Exhibit:

Busch/Surrebuttal

Sponsoring Party:

Public Counsel

Case No.:

ER-2004-0034  
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FILED

MAY 03 2004

Missouri Public  
Service Commission

## SURREBUTTAL TESTIMONY

OF

**JAMES A. BUSCH**

Submitted on Behalf of the Office of the Public Counsel

**AQUILA, INC.  
D/B/A AQUILA NETWORKS—MPS**

CASE NO. ER-2004-0034 ~~\_\_\_\_\_~~  
~~\_\_\_\_\_~~

February 27, 2004

Exhibit No. 1059  
Case No(s) ER-2004-0034  
Date 3-1-04 Rptr DT

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

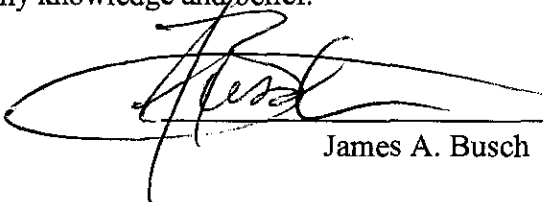
In the Matter of the Request of Aquila, )  
Inc., d/b/a Aquila Networks-L&P and ) Case No. ER-2004-0034  
Aquila Networks-MPS, to Implement a )  
General Rate Increase in Electric Rates. )

**AFFIDAVIT OF JAMES A. BUSCH**

STATE OF MISSOURI )  
 ) ss  
COUNTY OF COLE )

James A. Busch, of lawful age and being first duly sworn, deposes and states:

1. My name is James A. Busch. I am the Public Utility Economist for the Office of the Public Counsel.
2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony consisting of pages 1 through 11.
3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

  
James A. Busch

Subscribed and sworn to me this 27<sup>th</sup> day of February 2004.

KATHLEEN HARRISON  
Notary Public - State of Missouri  
County of Cole  
My Commission Expires Jan. 31, 2006

  
Kathleen Harrison, Notary Public

My commission expires January 31, 2006.

1 **SURREBUTTAL TESTIMONY**

2 **OF**

3 **JAMES A. BUSCH**

4 **CASE NO. ER-2004-0034**

5 **AQUILA, INC**

6 **d/b/a**

7 **AQUILA NETWORKS -- MPS**



8

9

10 Q. Please state your name and business address.

11 A. My name is James A. Busch and my business address is P. O. Box 2230,  
12 Jefferson City, MO 65102.

13 Q. Are you the same James A. Busch that filed direct and rebuttal testimony in this  
14 proceeding?

15 A. Yes I am.

16 Q. What is the purpose of your surrebuttal testimony in this case?

17 A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of  
18 Aquila Inc. (Aquila or Company) witnesses Mr. John C. Browning, Mr. Joseph  
19 M. O'Donnell, and Mr. Keith G. Stamm.

20 **Stamm**

21 Q. On page 3, lines 1 through 3 of his surrebuttal testimony, Mr. Stamm states that it  
22 is unreasonable to give equal weight to historical natural gas prices since no

1 authority is expecting a return to \$2 or \$3 natural gas prices in the foreseeable  
2 future. Do you have a comment about that statement?

3 A. Yes. I disagree with his statement that it is wrong to use historical prices in the  
4 development of the appropriate natural gas price to use in establishing electric  
5 rates in this proceeding. In early 2001, prices reached almost \$10 per MMBtu for  
6 the month of January and hovered at or near \$5.00 per MMBtu through May.  
7 Some analysts then were arguing that \$2.00 prices were a thing of the past and a  
8 new market was emerging. However, prices fell throughout 2001 to a low in  
9 October 2001 of under \$2.00. Since that time prices have steadily risen. Even  
10 though prices did not remain at the historically low price of \$2 - \$3 per MMBtu,  
11 prices did fall to those levels. As Mr. Browning notes in his rebuttal testimony,  
12 there were various factors that allowed that to happen. Similar factors could  
13 happen again. Furthermore, everyone agrees that natural gas prices are extremely  
14 volatile.

15 Q. Does volatility imply rising prices?

16 A. No. Volatility works in both directions, encompassing both high prices and low  
17 prices. Therefore, since no one knows exactly what the future holds and prices  
18 are volatile, it is reasonable and appropriate to rely on historical prices in one's  
19 analysis to try and determine an appropriate gas cost. This historical perspective  
20 should be tempered with a look at potential future movements to arrive at an  
21 appropriate price level. My approach does just that.

1        **Browning**

2        Q.    On page 2, lines 4 – 6 of his rebuttal testimony, Mr. Browning states that natural  
3            gas costs from 2002 are neither representative of 2003 natural gas prices nor  
4            representative of future natural gas prices. Please comment on this statement.

5        A.    While Mr. Browning is quick to discard both Mr. Vesely's and my use of  
6            historical prices, he seems to forget the fact that the prices he relied on are now  
7            historical prices. In fact, as pointed out in my rebuttal testimony, his analysis  
8            deals with a forecast for prices based on specific data for 2003. He conveniently  
9            ignored the analysts' use of 2004 forecast data that would have been more  
10          reflective of Aquila's pricing strategies in this rate case, according to his own  
11          argument. The use of this data would have lowered his natural gas price  
12          recommendation as discussed in my rebuttal testimony.

13        Q.    On pages 3 – 8, Mr. Browning quotes from several sources regarding natural  
14          prices. Do you have any comments regarding these articles?

15        A.    Yes. Mr. Browning quotes from 14 articles in his rebuttal testimony. Only five  
16          of those articles were published within the past few months. The first nine  
17          articles were published between January 16, 2003 and September 13, 2003. As  
18          Mr. Browning has repeatedly pointed out, market conditions are constantly  
19          changing. Why then, has he relied on articles that are 9 – 12 months old to  
20          support his current market predictions? Throughout most of 2003, extremely low  
21          storage levels were a major concern in the market. However, due to the record  
22          levels of injections throughout the injection season, those concerns have been

1           greatly reduced, even with the colder-than-normal winter experienced in the  
2           northeast and recent cold weather in the Midwest.

3           Q.   Do you have any comments about the articles used by Mr. Browning?

4           A.   Yes. In the Business Week article "Is the Natural Gas Crunch about to become a  
5           Crisis?" published on June 16, 2003, it states, "The industry also blames Wall  
6           Street for insisting on higher profits today at the expense of future production."  
7           This is in response to the reasons why prices were doubled compared to the year  
8           before. I believe this statement indicates that some of the reason for the higher  
9           price of natural gas is not due to a lack of supply. In fact, it is due to the lack of  
10          exploration for newer supplies by producers. The producers' are not exploring for  
11          new supplies currently due to a need to show higher profits today rather than  
12          investing in new production that would have the effect of lowering today's profit  
13          and increasing supply. Furthermore, producers benefit when natural gas prices  
14          are high.

15          Q.   On page 3, lines 12 and 13, Mr. Browning states that the marketplace has already  
16          absorbed most of the demand destruction and fuel switching that is likely to take  
17          place. Please comment on this statement.

18          A.   I agree that due to the high gas prices experienced through the summer of 2003, a  
19          substantial amount of demand destruction occurred during that time frame. In  
20          fact, demand destruction during 2003 probably helped restore storage levels to  
21          more normal levels. According to the July 29, 2003 Wall Street Journal article,  
22          "Natural Gas Supply Shows Gains," "... experts say storage volumes are growing  
23          because of unplanned reductions in consumption. The brunt falls heaviest on

1 industrial plants, which analysts say are halting some operations.” The article  
2 further states, “Plants are being forced offline by prices that, for much of the year,  
3 have run about twice their levels of a year earlier,” and ““Over time, they are the  
4 ones that are going to be pushed out of the market, and we are absolutely seeing  
5 that,’ Mr. Shawn Reynolds, an energy analyst for Petrie Parkman, said of  
6 industrial users.” This suggests that when prices remain elevated like they did in  
7 2003, large industrial users will lower their demand. Prices did not drop as  
8 quickly as they might have with this drop in demand due to the increase in  
9 demand caused by the low storage levels in the summer, followed by this winter’s  
10 colder-than-normal weather. However, if storage levels remain strong during the  
11 last two months of this heating season and prices remain high, industrial demand  
12 may continue to drop, even with a strengthening economy. However, under this  
13 scenario, prices should drop due to a more normal demand for storage refill.

14 Q. Do you have any other comments regarding the current high natural gas prices  
15 and the articles used by Mr. Browning?

16 A. Yes I do. In the December 19, 2003 Washington Post article used by Mr.  
17 Browning, some interesting comments were made. First the article states,  
18 “[n]atural gas prices around the nation have hit their highest levels since March,  
19 just before the Iraq war, driven by December’s winter storms and a **surge of**  
20 **speculative energy trading by investment firms.**” (emphasis added) It adds,  
21 “[b]ut another big factor in this month’s price leap is that **financial firms and**  
22 **energy traders have been speculating on shifts in gas prices,** analysts and  
23 traders said.” (emphasis added) The article further indicates that the jump in

1 prices is higher than it should be based on economic and weather factors and that  
2 when prices rise, other traders climb on the bandwagon and bid the market higher.

3 Attached as schedule JAB-S1 is the article in its entirety.

4 In the December 24, 2003 Dow Jones Energy Services article used by Mr.  
5 Browning, it states,

6 Some gas producers and energy traders aren't as alarmed. If  
7 storage is below a trillion cubic feet at the end of March and  
8 forward prices stay above \$4, new rigs will quickly go up in  
9 the Gulf of Mexico, even if those mature fields can supply  
10 only a short-term solution at costs higher than in the past,  
11 said David Keyte, chief financial officer of Forest Oil. The  
12 industry is waiting to make sure that the bull market outlasts  
13 the winter. The price spike of December 2000 spurred a  
14 historic jump in drilling, followed soon after by bottom-  
15 basement prices and financial losses for producers. 'This just  
16 happened in 2001,' Keyte said. 'We had \$9 gas followed by  
17 \$2 gas. The reason people aren't investing is because they  
18 recall that clearly.'

19  
20 When the information contained in these two articles are considered  
21 together, the reality of the current market situation does not fit the gloom and  
22 doom forecast that Aquila's witnesses are painting. The first article indicates that  
23 fundamentally, the market is fine; however, speculators are causing the prices to  
24 remain high. The second article indicates that if prices remain high, some relief is  
25 on its way. Either way, establishing the high gas prices in permanent rates, as  
26 proposed by Aquila, at a time when speculators have bid up the market, would not  
27 be reasonable. Instead, tempering the current high prices with historical data  
28 makes much more sense.

29 Q. Mr. Browning gives definitions of wellhead price and spot price on page 10 of his  
30 rebuttal testimony. Do you agree with his definitions?



1 A. I do agree with his technical definitions. However, wellhead and spot prices can  
2 be used in different contexts within the industry. When I referred to wellhead  
3 prices in my testimony, I was referring to the price of gas that a Local Distribution  
4 Company (LDC) would pay a producer, generally a first-of-month index price as  
5 quoted in a publication such as InsideFERC or Gas Daily. When I refer to spot  
6 prices, I am referring to the price of gas on any given day, not a first-of-month  
7 index price.

8 Q. What is Mr. Browning's major criticism of your methodology?

9 A. Mr. Browning's theme throughout his testimony is that any reliance on historical  
10 prices for determining natural gas prices is unreasonable since the market has  
11 changed. My methodology uses historical prices back to January 2001.

12 Q. Has the natural gas market changed?

13 A. Yes. It is my belief that the market change that Mr. Browning is referring to, for  
14 example page 3, lines 12 – 21 of his rebuttal testimony, occurred in May of 2000.

15 Q. Please generally describe the market price of natural gas prior to May of 2000.

16 A. Prior to May 2000, the market traded in a range between \$1.50 per MMBtu and  
17 \$3.00 per MMBtu. The highest monthly settlement prior to May 2000 was \$3.998  
18 for January 1997.

19 Q. What happened in May 2000?

20 A. The initial run-up of natural gas prices began in early May 2000. May 2000 saw  
21 prices reach the \$4 per MMBtu level, which at that time was unprecedented.  
22 Since then, prices have climbed to over \$9 on two separate occasions, January  
23 2001 and March 2003, over \$6 on three occasions, and only dipped below \$3

1           seven times. It is the historical prices within this new market that I have relied  
2           upon in my analysis. I have not relied upon prices from prior to the year 2001.  
3           Within the time frame from in January 2001 until February 2004, prices have  
4           been extremely volatile. Finding some methodology to smooth out this volatility  
5           is an appropriate and reasonable method of determining natural gas costs. This is  
6           what I have done in my analysis by blending the historical prices associated with  
7           the new (post 2000) market fundamentals with a look at future prices.  
8           Furthermore, predictions rely on past data in order to determine what future  
9           conditions may do to future price levels.

10           **O'Donnell**

11           Q. On page 4, lines 17 and 18 of his rebuttal testimony, Mr. O'Donnell states that  
12           although it is **possible** that the spot price for natural gas in July of 2004 will differ  
13           from the price that is currently being quoted in the futures market, he strongly  
14           advocates the use of NYMEX futures as a tool for price mitigation. Do you have  
15           a comment on this statement?

16           A. Yes I do. It is doubtful that the futures price for July 2004 delivery on February  
17           10, 2004, will be the July 2004 contract expiration price. The futures market is  
18           not intended to be a predictor of future price levels. The futures market is a  
19           market where buyers and sellers come together to offset price risk. It tells the  
20           industry on any given day the price at which someone is willing to sell and the  
21           price at which someone else is willing to buy natural gas for some future delivery,  
22           based on information known on that day. As that information changes, so does

1 the futures price. However, I do agree with Mr. O'Donnell's next statement that  
2 NYMEX futures can be a tool in minimizing price volatility.

3 Q. On page 15, lines 11 and 12 of his rebuttal testimony, Mr. O'Donnell states that  
4 your use of NYMEX futures prices on November 20, 2003 is very subjective.  
5 Please comment.

6 A. The use of that date is no more subjective than Aquila's use of March 2003 price  
7 forecasts to determine its recommended natural gas price level. Especially when  
8 one considers that Aquila also had price forecasts for the year 2004, but ignored  
9 those forecasts, even though Aquila knew its operation of law date would not  
10 occur until 11 months after its rate case filing in July 2003. Those 2004 price  
11 forecasts called for lower prices than the 2003 price forecasts. In fact, any use of  
12 historical data or future price estimations will have some level of subjectivity. It  
13 is simply the nature of trying to establish an appropriate price level.

14 Q. Both Mr. O'Donnell and Mr. Browning add your basis calculation back to your  
15 natural gas price level to get a NYMEX price. Does Aquila buy its gas from the  
16 Henry Hub?

17 A. No.

18 Q. How are Aquila's natural gas purchases priced?

19 A. Generally, Aquila's natural gas purchases are priced based on a first-of-month  
20 index or a spot price found in a trade publication such as InsideFERC or Gas  
21 Daily, or they can be priced based off of the NYMEX settlement less some basis  
22 differential. Aquila also has the ability to purchase gas on a fixed price basis.

1 Q. At line 15 on page 15 of his rebuttal testimony, Mr. O'Donnell states that  
2 historical prices are not indicative of future market prices. Please comment.

3 A. Historical prices may not always accurately predict future market prices;  
4 however, current futures market prices are no more indicative of future market  
5 prices. Also, industry analysts' predictions for 2003 prices, as utilized by Aquila,  
6 are no more indicative of future market prices. Historical prices do lay a  
7 foundation of what can be expected in the industry and indicates what level of  
8 prices may be deemed too high for certain consumers. As has been shown, when  
9 prices remain high like they did in 2003, some industrial customers quit, or at  
10 least curtail, using natural gas. If prices remain at those levels, further demand  
11 destruction will occur. As demand falls, so will prices. Therefore, using both low  
12 and high historical prices establishes a parameter as to what level of future prices  
13 will be sustainable.

14 Q. Also on page 15 of his rebuttal testimony, Mr. O'Donnell discusses your use of  
15 weighted monthly prices based on consumption data. He states that weather  
16 patterns will vary greatly and this also affects actual plant consumption. Please  
17 comment.

18 A. Most of the natural gas used by Aquila is used for peaking capability. This means  
19 that more gas is purchased in the summer during its peaking months versus  
20 purchases made in the winter or shoulder months. The Aries purchased power  
21 contract calls for more megawatts in the summer months than in the winter  
22 months. Historically, prices for natural gas are greater in the winter than in the  
23 summer. Aquila will generally purchase more gas in the summer than in the

1 winter. Attached, as Schedule JAB-S2, is Aquila's highly confidential response  
2 to OPC Data Request 603 that shows Aquila's monthly gas purchases since  
3 January 2000. It is not reasonable to give a January price of natural gas the same  
4 weight as a July price. Like most electric utilities in Missouri, Aquila generally  
5 would purchase more gas in the summer than in the winter. Therefore, it is  
6 reasonable and appropriate to weight summer prices higher than winter prices.

7 Q. Does this conclude your surrebuttal testimony?

8 A. Yes.

**U.S. Natural Gas Prices Soar (Washington Post)**  
**The Washington Post - 12/19/2003**

Natural gas prices around the nation have hit their highest levels since March, just before the Iraq war, driven up by December's winter storms and a surge of speculative energy trading by investment funds.

Buyers were paying more than \$7.10 per thousand cubic feet for gas yesterday on the New York Mercantile Exchange, where energy companies and traders bid on large amounts of the fuel. The price has risen by more than 50 percent since the Monday before Thanksgiving. It was \$5 per thousand cubic feet a year ago.

Washington Gas's 960,000 customers will be paying the higher prices on about half the fuel they burn next month. The rest of the utility's supply was purchased last summer at somewhat lower prices and stored for the winter, or is protected against very large price increases by financial contracts.

Industry officials say the latest escalation in gas prices is fundamentally due to a thin margin between supplies and demand for the crucial heating and industrial fuel, which provides almost one-quarter of the nation's energy needs.

"Basically it's demand outstripping the supply," said Sean T. Sexton, senior director at Fitch Ratings, a bond rating firm.

But another big factor in this month's price leap is that financial firms and energy traders have been speculating on shifts in gas prices, analysts and traders said.

Just as motorists have become used to seeing gasoline prices swing from \$1.50 a gallon to \$2 and back down in a matter of weeks, households and businesses face wild price gyrations in natural gas prices for at least several more years, the American Gas Association said recently.

Output from older gas wells has been declining more quickly than expected. Large new gas reserves are not being found or opened up. Meanwhile, the demand for gas keeps growing because it has become the fuel of choice for new electric power plants. The energy bill that Congress has struggled over for two years would not raise production significantly for years, some energy officials say.

The supply gap should be closed eventually by deliveries of liquefied natural gas by ship from the Caribbean, Africa, the Middle East and Asia, energy officials say. But first, new liquid natural gas facilities costing billions of dollars must win regulators' backing.

While acknowledging the strains on gas supplies, some analysts say this month's jump in prices is higher than it should be based on economic and weather factors. Inventories of stored gas are at normal levels and 8 percent above last year's levels at this time.

But strains on supplies have left the gas market balanced on a knife's edge, vulnerable to price swings.

"Hedge" funds, restricted to wealthy investors, and other specialized funds, with \$500 billion of capital in hand, are increasing their bets on gas and other energy commodities, says a report by the Energy Intelligence Group.

Volatility is the magnet pulling in traders. "It's brought on a slew of speculators," said Michael Ross, a trader with BP Capital, the Dallas firm headed by T. Boone Pickens, a legend of the 1980s corporate merger and takeover battles. For some funds, the payoff has been huge. Pickens's firm is not trading daily in the energy market, aiming instead at mid- to longer-term positions, Ross said. But it has done well the past year, he said. Its commodity fund, restricted to about a dozen investors, is up \$420 million this year, an annual gain of 375 percent, according to the firm.

Heading into December, many traders had expected gas prices to stay flat or even decline because of the recovery in gas inventories, Ross said.

Then came the first blasts of winter weather and unexpected reports that U.S. manufacturers were beginning to increase their operations, boosting demand for gas. Traders who had been betting on falling gas prices suddenly saw prices rising and had to rush back into the market to buy gas contracts or suffer heavy losses, said analyst Peter Beutel of Cameron Hanover Inc. in New Canaan, Conn.

When prices started to rise, other traders climbed on the bandwagon. "Invariably, the speculators will bid the market higher," as long as supplies appear tight, he said.

Many economists hold that speculative trading adds buyers and sellers into the mix, making prices more competitive in the long run. But the immediate impact of volatility and speculation may have raised prices by \$1 or more per thousand cubic feet, or 10 cents a therm, the measure of natural gas on consumers' bills, Beutel and other analysts estimate.

One traders' gain is a loss for the trader on the other side of the deal. But consumers pay too, if the trading sends prices higher than they otherwise would be. And that has happened, analysts say.

"We think the market has overshot," said Bruce B. Henning, a director of Energy and Environmental Analysis Inc. in Arlington.

At some point, traders' prevailing views will shift in the other direction and a selling wave will take hold, Beutel said. "They're going to be jumping to get out of this. It's going to be a bloodbath to get out. But I don't see a sight of it today."

**SCHEDULE JAB-S2**

**Has Been**

**Deemed Highly Confidential**

**In Its Entirety.**