

Exhibit No.:

Issue(s):

Witness/Type of Exhibit:

Sponsoring Party:

Case No.:

Natural Gas Prices

Busch/Rebuttal

Public Counsel

EC-2002-1

REBUTTAL TESTIMONY

OF

JAMES A. BUSCH

Submitted on Behalf of the Office of the Public Counsel

UNION ELECTRIC COMPANY

Case No.: EC-2002-1

May 10, 2002

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

STAFF OF THE MISSOURI)
PUBLIC SERVICE COMMISSION,)
Complainant,)
)
vs.)
)
UNION ELECTRIC COMPANY,)
d/b/a AmerenUE,)
Respondent.)

Case No. EC-2002-1

AFFIDAVIT OF JAMES A. BUSCH

STATE OF MISSOURI)
)
COUNTY OF COLE)

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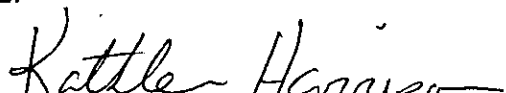
James A. Busch, of lawful age and being first duly sworn, deposes and states:

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 rebuttal testimony consisting of pages 1 through 9 and Schedules JAB-1 through JAB-3.
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 10th day of May 2002.

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 Further, I also am a member of the adjunct faculty of Columbia College, Jefferson
2 City Campus, teaching Managerial Economics in the MBA program and
3 Undergraduate courses in Economics.

4 Q. Have you previously testified before this Commission?

5 A. Yes. Attached is Schedule JAB-1 which is a list of the cases in which I have filed
6 testimony before this Commission.

7 Q. What is the purpose of your testimony in Case No. EC-2002-1?

8 A. The purpose of my testimony is to present Public Counsel's recommendation for
9 natural gas costs that should be included in AmerenUE's (Ameren or Company)
10 rates.

11 Q. How is your testimony organized?

12 A. My testimony is organized in the following manner. First, I will briefly discuss
13 the movement of the price of natural gas since January 2001, current market
14 conditions, and potential future movements in the price of natural gas. Then I will
15 give Public Counsel's recommendation for setting the price of natural gas in this
16 case that is used in the calculation of AmerenUE's revenue requirement.

17 **Natural Gas Price Movement since January 2001**

18 Q. What has happened to the price of natural gas since January 2001?

19 A. January 2001 saw the highest price of natural gas for a monthly settlement ever on
20 the New York Mercantile Exchange (NYMEX). The price for natural gas settled
21 at \$9.978 per MMBtu. This price was over two times the previous highest
22 January settlement price. Throughout 2001, the price of natural gas at the

1 NYMEX steadily dropped, with a minor bump in price for the month of
2 November. Then, through March 2002, the price of natural gas traded between
3 \$2.00 and \$2.60 per MMBtu, with a low of \$2.006 in February. Since that time,
4 the price of natural gas has trended higher. Currently, the price for natural gas for
5 the month of June 2002 is \$3.595 per MMBtu and the 12-month futures strip
6 (June '02 – May '03) is \$3.857 per MMBtu, based on the closing price on May 5,
7 2002. Attached, as Schedule JAB-2, are graphs that show the monthly
8 settlements for natural gas at the NYMEX for the past year and for the past five
9 years.

10 Q. What factors contributed to the sustained decrease in the price of natural gas
11 during the year 2001 and the subsequent rise in prices during the first part of
12 2002?

13 A. There were many factors that contributed to the sustained decrease in the price of
14 natural gas during the year 2001. I will briefly describe some of the most
15 important factors.

16 The first factor was the unprecedented price of natural gas experienced
17 during the second half of 2000. In response to the high prices, companies
18 expanded their drilling activity for new natural gas wells in an effort to capture
19 the higher prices that were prevalent in the market that year. As more rigs were
20 coming on line, this helped to increase the overall availability of supply to the
21 market. More supply will help lead to lower prices.

22 The second factor was the economy. The National Bureau of Economic
23 Research stated that the nation's economy was in a recession beginning in March

1 2001. Due to the slowdown of the economy, industrial and electric generation
2 demand for natural gas and oil declined compared to previous years. A reduction
3 in demand leads to lower prices.

4 The combination of the first two factors led to a third factor. The
5 combination of increasing supply and decreasing demand led to record levels of
6 natural gas being injected into storage during most of the summer of 2001. This
7 can be seen from two perspectives. One, during the price run-up of 2000, the
8 industry was reluctant to put natural gas into storage when the price initially
9 spiked over \$4.00 per MMBtu in early May 2000. Last year, after seeing the
10 price go up to \$10.00 per MMBtu, a storage price of \$4.00 per MMBtu did not
11 seem so bad. Therefore, the industry was putting natural gas in storage at higher
12 than normal prices. Two, with less demand for natural gas due to the sluggish
13 economy, there was more natural gas available to be put in storage without
14 exerting upward pressure on the price. These two factors contributed to the
15 highest levels of storage injections as reported by the American Gas Association.

16 A fourth factor was the relatively warm weather experienced around most
17 of the nation throughout most of the winter. Gas storage was at near record high
18 levels at the start of the past winter heating season (November – March). The
19 weather was relatively warm throughout the country, especially considering that
20 November and December of 2000 had near record cold weather throughout most
21 of the nation. This meant lower demand for natural gas this past winter. This has
22 added to the pressure to keep prices lower.

1 Since the beginning of this year, prices have tended to trade higher. One
2 of the factors that have led to the higher price in natural gas was the relatively
3 cooler weather the nation faced through most of March and April. Further, rig
4 counts have generally fallen due to the relatively lower prices experienced
5 through the end of 2001. Finally, as discussed by the Energy Information
6 Administration's Short-Term Energy Outlook, the unrest in the Middle East may
7 be having a substantial impact on the price of natural gas. Due to that unrest, and
8 the potential for an escalation in the war on terrorism, the market is wary of a
9 major disruption in the supply of oil. This fear has had a negative effect on the
10 natural gas market because a disruption in the oil supply will put substantial
11 pressure on the natural gas industry.

12 **Current Conditions in the Natural Gas Market**

13 Q. What are the current conditions in the natural gas market?

14 A. Currently, the natural gas market is one month into the seven-month summer
15 injection season (April – October). Storage levels are still at relatively high levels
16 and roughly half a Tcf (Trillion Cubic Feet) higher than last year. The economy
17 is showing signs of perking up and the weather has been relatively mild over most
18 of the United States. However, lower rig counts and the uneasiness in the Middle
19 East continue to exert negative effects on the market. These two factors are
20 keeping prices at the higher levels that the market is experiencing currently
21 compared to earlier this year.

Potential Future Movement of the Price of Natural Gas

Q. What is the outlook for the price of natural gas for the rest of 2002?

A. The outlook for the price of natural gas for the rest of this year is uncertain at this time. A number of important factors appear to be pulling the price of natural gas in different directions. Whichever factor finally exerts the most pull, or falls away, will help determine the movement in price for natural gas. These factors include such things as storage, the Middle East, the economy, etc. Ultimately, however, the weather will have the greatest impact on the movement of the price of natural gas. The long-run forecast is calling for another El Niño event to occur later this year. This could cause a mild winter that may exert downward pressure on the price of natural gas.

Q. What is the outlook for the price of natural gas beyond 2002?

A. The natural gas industry is still in a period where the price of natural gas should fluctuate between \$2.00 and \$4.00 per MMBtu, depending upon short-term fluctuations due to weather or other factors. This is a slightly higher band than the industry typically experienced prior to the year 2000.

Public Counsel's Recommendation

Q. What is Public Counsel's recommendation for the price of natural gas to utilize in setting rates in this case?

A. In this case, Public Counsel believes that the price of natural gas for electric generation and purchased power fuel costs should be based on a three-year average of natural gas prices. The three years that I have utilized to calculate this

1 average are the actual settlement prices based on the NYMEX for the two years
2 ended May 31, 2002 and the 12-month futures strip price, June 2002 through May
3 2003. Therefore, the underlying price of natural gas would be \$3.659 per MMBtu
4 on an annual volume weighted basis. Attached, as Schedule JAB-3, are the
5 monthly prices that should be utilized in determining overall fuel costs.

6 Q. Why did you utilize this type of three-year average for the basis of Public
7 Counsel's recommendation?

8 A. I utilized this hybrid approach of historical and future data in recognition of the
9 volatility of the natural gas market. Although the past is important for realizing
10 the actual activity of the Company and the market, the past may not be a good
11 predictor of future price movements. Further, simply picking a date and using the
12 12-month strip of futures prices from that date for natural gas prices lacks
13 reliability. I believe that combining the past with the future provides a better
14 basis for establishing the price level for natural gas the Commission should utilize
15 in determining the Company's overall rates.

16 Q. On what pricing information does Public Counsel base its recommendation?

17 A. The pricing information is based on the NYMEX monthly settlement prices for
18 the months June 2000 – May 2002 and the 12-month futures strip, June 2002 –
19 May 2003. The prices based on the NYMEX were utilized because this data is
20 readily available and an accurate reflection of actual market activity.

21 Q. Did you adjust any of the historical data from the NYMEX?

22 A. Yes. When analyzing the monthly data from the years 2000 and 2001 these prices
23 were, for the most part, extremely high compared to past price levels. In fact, five

1 months, October and December 2000 and January, February, and April 2001
2 seemed to be extreme outliers. October's settled price was \$5.310 per MMBtu
3 and December's settled price was \$6.016. January, February, and April's settled
4 prices were \$9.978, \$6.293, and \$5.384, respectively. I believe these prices are
5 anomalies. Therefore, I replaced them with each individual month's previous
6 high.

7 Q. Why did you remove the anomaly prices from your calculation?

8 A. The prices for the months of June – December 2000 and January – May 2001 that
9 I used in my calculation were the highest ever for those particular months. For
10 instance, the prices for September, October, and December 2000 and January –
11 April 2001 were over 50% greater than the next highest price for those months,
12 respectively. I changed October and December 2000 and January, February, and
13 April 2001 prices because those prices were not only 50% higher than the
14 previous monthly high for each of those months, but they were also over \$5.00
15 per MMBtu which is more than a dollar above my \$2.00 to \$4.00 per MMBtu
16 band that I believe natural gas will be over the next few years.

17 Q. Why do you believe that these prices were anomalies?

18 A. The conditions that affected the market at that time have been described as “the
19 perfect storm.” That is, the negative factors of low storage, low rig counts, high
20 summer demand from the economy and electric generation, and a colder-than-
21 normal early winter all hit at the same time to drive prices to highs never before
22 predicted. Therefore, market participants will probably be more concerned with
23 potential price spikes and take the appropriate action to mitigate those factors.

1 Q. Have you performed a calculation to see how your recommended price of \$3.659
2 per MMBtu would change if the anomalies were not adjusted to reflect the
3 previous monthly highs for those five months?

4 A. Yes. If I had not made the adjustments to the data then my recommended price
5 would be \$3.91 per MMBtu.

6 Q. Does this conclude your direct testimony?

7 A. Yes it does.

**Cases of Filed Testimony
James A. Busch**

<u>Company</u>	<u>Case No.</u>
Union Electric Company	GR-97-393
Missouri Gas Energy	GR-98-140
Laclede Gas Company	GO-98-484
Laclede Gas Company	GR-98-374
St. Joseph Light & Power	GR-99-246
Laclede Gas Company	GT-99-303
Laclede Gas Company	GR-99-315
Fiber Four Corporation	TA-2000-23; et al.
Missouri American Water Company	WR-2000-281/SR-2000-282
Union Electric Company d/b/a AmerenUE	GR-2000-512
St. Louis County Water	WR-2000-844
Empire District Electric Company	ER-2001-299
Missouri Gas Energy	GR-2001-292
Laclede Gas Company	GT-2001-329
Laclede Gas Company	GO-2000-394
Laclede Gas Company	GR-2001-629
UtiliCorp United, Inc	ER-2001-672

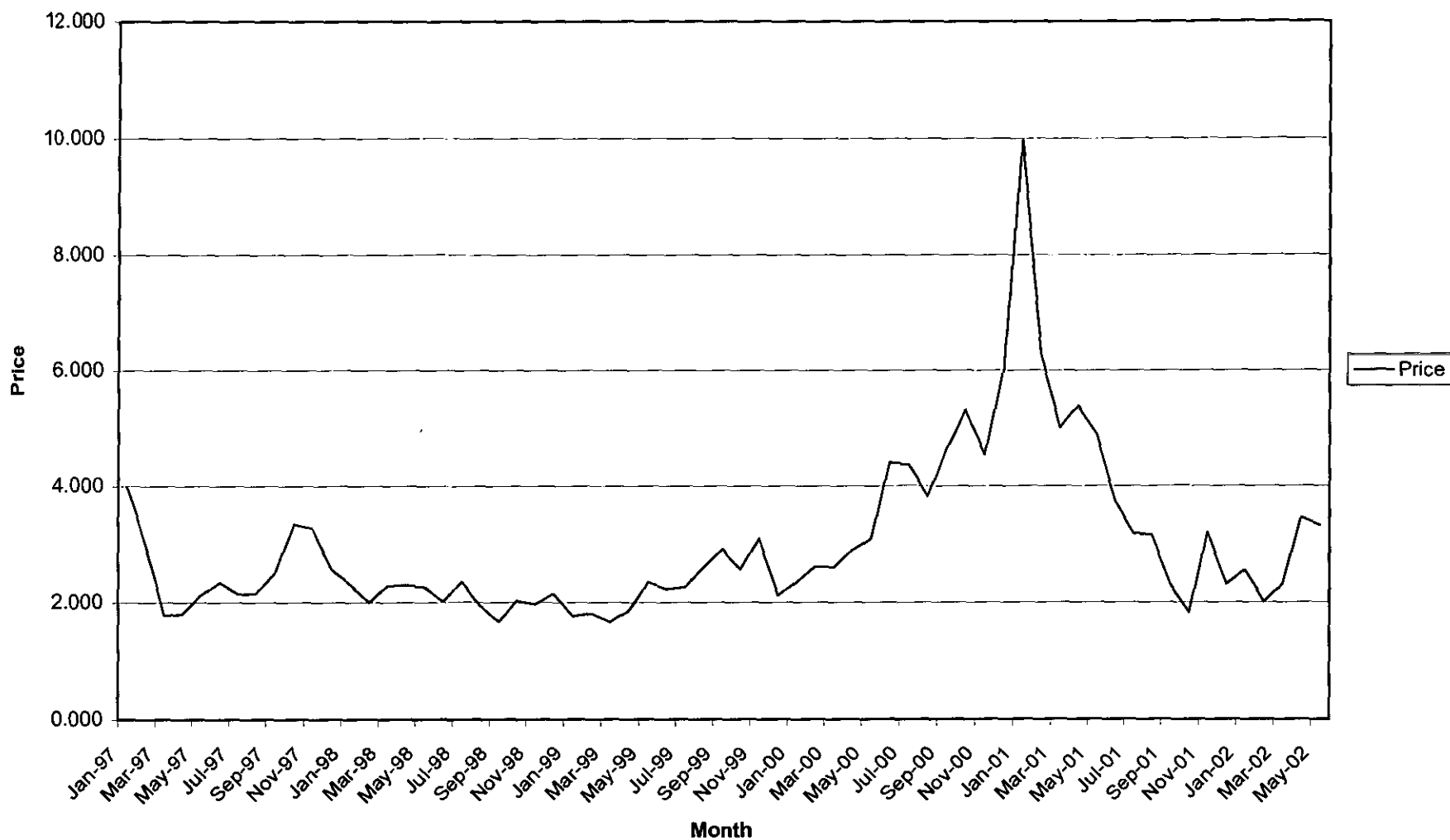
OFFICE OF PUBLIC COUNSEL

Union Electric Company

d/b/a AmerenUE

EC-2002-1

NYMEX Monthly Settlement Prices Since January 1997



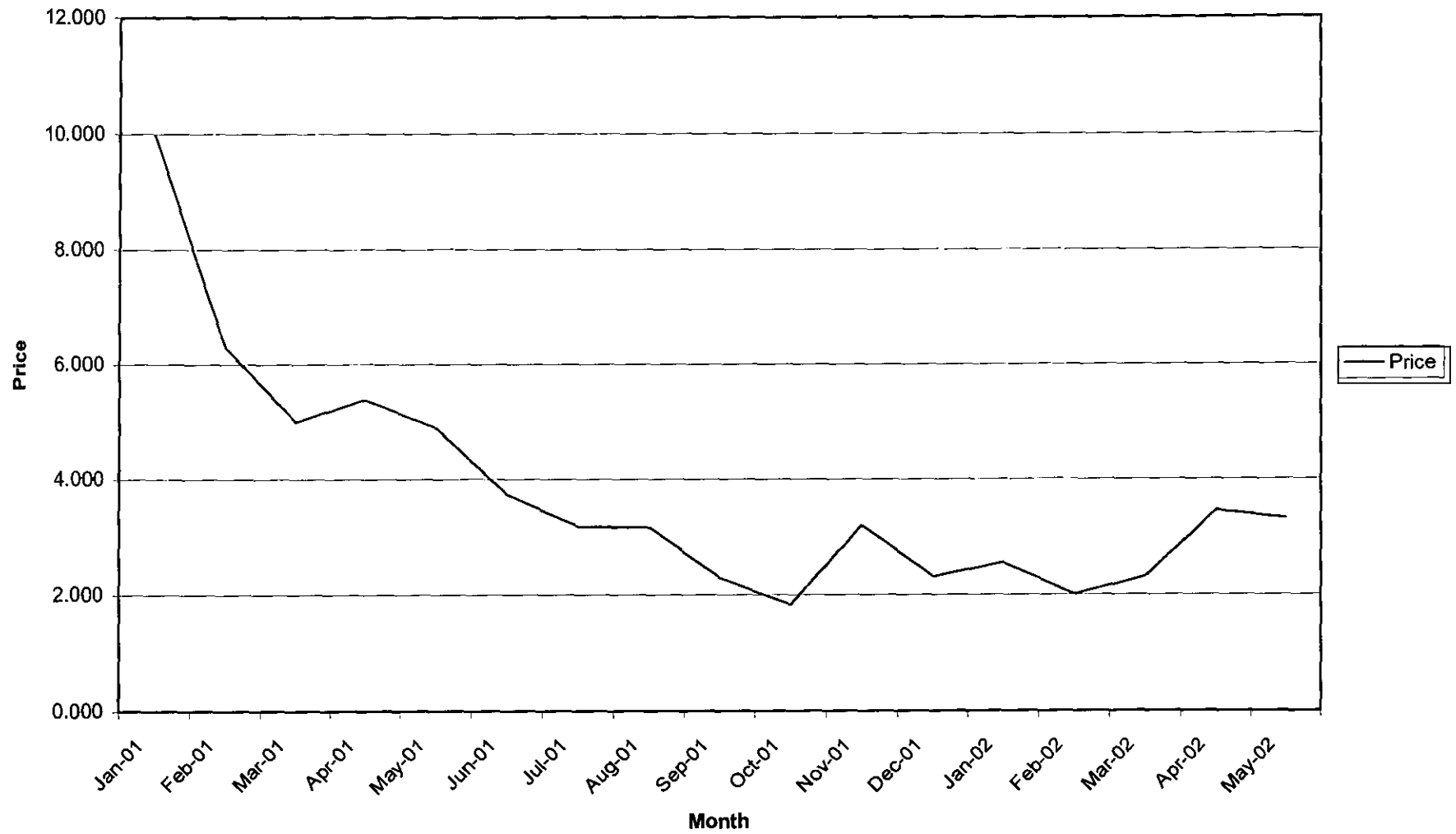
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NYMEX Montly Settlement Prices Since January 2001



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Office of Public Counsel's recommended monthly natural gas prices.

	2000	2001	2002	2003	Recommended Monthly Price
January		\$ 3.998	\$2.555	\$ 4.251	\$ 3.814
February		\$ 2.986	\$2.006	\$ 4.155	\$ 3.949
March		\$ 4.998	\$2.307	\$ 3.983	\$ 3.739
April		\$ 3.457	\$3.457	\$ 3.760	\$ 3.588
May		\$ 4.891	\$3.319	\$ 3.730	\$ 3.480
June	\$ 4.406	\$ 3.738	\$3.595		\$ 3.411
July	\$ 4.369	\$ 3.182	\$3.639		\$ 3.130
August	\$ 3.820	\$ 3.167	\$3.680		\$ 3.446
September	\$ 4.618	\$ 2.295	\$3.685		\$ 3.589
October	\$ 3.346	\$ 1.830	\$3.695		\$ 2.957
November	\$ 4.541	\$ 3.202	\$3.947		\$ 3.307
December	\$ 3.901	\$ 2.316	\$4.160		\$ 3.649