

Exhibit No.: _____

Issue(s):

Natural Gas Prices

Witness/Type of Exhibit:

Busch/Direct

Sponsoring Party:

Public Counsel

Case No.:

ER-2001-672

FILED³

DEC 6 2001

DIRECT TESTIMONY

Missouri Public
Service Commission

OF

JAMES A. BUSCH

Submitted on Behalf of the Office of the Public Counsel

UtiliCorp United Inc.

Case No. ER-2001-672

December 6, 2001

1 City Campus, teaching Managerial Economics in the MBA program and
2 Undergraduate courses in Economics.

3 Q. Have you previously testified before this Commission?

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

6 Q. What is the purpose of your testimony in Case No. ER-2001-672?

7 A. The purpose of my testimony is to present Public Counsel's recommendation for
8 natural gas costs that should be included in UtiliCorp United, Inc.'s (UCU,
9 UtiliCorp, or Company) rates.

10 Q. How is your testimony organized?

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

16 **Natural Gas Price Movement during the Past Year**

17 Q. What happened to the price of natural gas during the year 2001?

18 A. January 2001 saw the highest price of natural gas for a monthly settlement ever on
19 the New York Mercantile Exchange (NYMEX). The price for natural gas settled
20 at \$9.98 per MMBtu. This price was over two times the previous highest January
21 settlement price. Since then, the price of natural gas at the NYMEX has steadily
22 dropped throughout the year with a minor bump in prices for the month of

1 November. The December 2001 contract just expired at the end of November at
2 \$2.316 per MMBtu. This price is almost \$4.00 per MMBtu below last
3 December's settle of \$6.016 per MMBtu. The current price for the January
4 contract (as of December 3, 2001) is \$2.634 per MMBtu. Attached, as Schedule
5 JAB-2 are graphs that show the monthly settlements for natural gas at the
6 NYMEX for the year 2001 and for the past five years.

7 Q. What factors have contributed to the sustained decrease in the price of natural gas
8 during the year 2001?

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

12 The first factor was the price of natural gas itself. Due to the extremely
13 high prices of natural gas experienced during the second half of 2001, companies
14 expanded their drilling activity for new natural gas wells in an effort to capture
15 the higher prices that the nation was paying last year. As more rigs were coming
16 on line, this helped to increase the overall availability of supply to the market.
17 More supply will help lead to lower prices.

18 The second factor was the economy. The National Bureau of Economic
19 Research states that the nation's economy has been in a recession since March.
20 Due to the slowdown of our economy, industrial and electric generation demand
21 for natural gas and oil has declined compared to previous years. A reduction in
22 demand will help lead to lower prices.

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

13 A fourth factor is the current warm weather being experienced around
14 most of the nation. Gas storage was at near record high levels at the start of the
15 current winter heating season (November – March). The weather has been
16 relatively warm throughout the country, especially considering that last November
17 and December had near record cold weather throughout most of the nation. This
18 has meant very little demand for natural gas so far this winter. In fact, there has
19 not been a net withdrawal from storage so far this season, with net injections
20 occurring instead. This has added to the pressures to keep prices lower.

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

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

1 A. Currently, the natural gas market is one month into the five-month winter heating
2 season. Storage levels are at all-time highs, and the weather has been extremely
3 mild with little cold weather forecasted in the near future. The December contract
4 on the NYMEX closed substantially lower than the November contract. The cash
5 price at the Henry Hub, the physical location where NYMEX gas is traded, is
6 around \$2.00 per MMBtu.

7 **Potential Future Movement of the Price of Natural Gas**

8 Q. What is the outlook for the price of natural gas for the rest of this winter's heating
9 season?

10 A. I believe the price of natural gas is probably going to remain constant or fall for
11 the rest of this winter heating season. I base this outlook on the record high levels
12 of storage, the relatively mild winter weather throughout the country, and the
13 slumping economy. If a significant change in weather, i.e. a sustained period of
14 arctic air over much of the country, occurs in the next month or so, there may be
15 some pressure on prices to increase. Assuming normal weather, I believe the
16 fundamentals in the market point to generally falling prices over the next few
17 months.

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

19 A. Assuming normal winter weather and relatively low natural gas prices, the market
20 should enter the injection season in pretty good shape. The outlook will depend
21 upon how the overall economy is doing at that time and the forecast for summer
22 weather. If the economy is starting to perk up by this summer, that will put

1 upward pressure on the price of natural gas. However, normal winter weather
2 coupled with initial high storage should leave plenty of natural gas in storage
3 entering the injection season. That should help offset an increase in demand by
4 the industrial sector, or an increase due to an increase in the need for electric
5 generation. I would project that the natural gas industry is entering a period when
6 the price of natural gas will fluctuate between \$2.00 per MMBtu and \$4.00 per
7 MMBtu, depending upon short-term fluctuations due to weather and other factors.
8 This is a slightly higher band than what the industry had experienced prior to the
9 year 2000.

10 **Public Counsel's Recommendation**

11 Q. Based on your above discussion, what is Public Counsel's recommendation for
12 the price of natural gas to be imbedded in rates in this case?

13 A. In this case, I believe that the price of natural gas to be associated with electric
14 generation and purchased power fuel costs should be based on a three-year
15 average of natural gas prices adjusted for any basis differential. The three years
16 that I have utilized to calculate this average are the actual settlement prices based
17 on the NYMEX for the two years ended December 31, 2000 and the 12-month
18 futures strip price. Therefore, the underlying price of natural gas would be \$2.78
19 per MMBtu as adjusted for the basis differential between Williams Natural Gas
20 Pipeline (WNG) and the NYMEX.

21 Q. What is basis differential?

1 A. Basis differential is the price difference between two separate delivery points for
2 natural gas. In this instance, UCU receives its natural gas supplies off of the
3 WNG pipeline. This pipeline is based primarily in the Mid-continent area
4 (Kansas and Oklahoma). The NYMEX prices are based on the Henry Hub index
5 in Louisiana. Since these areas are different, each has its own pricing variations.
6 However, these prices move in relatively the same manner. However, to get a
7 clearer picture of the price that the Company will actually pay for natural gas, the
8 NYMEX prices should be adjusted by the historical price differential between the
9 Henry Hub and the actual location where the Company receives its supplies.

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

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

20 Q. On what pricing information is Public Counsel's recommendation based?

21 A. The pricing information is based on the NYMEX monthly settlement prices for
22 the months January 1999 – December 2000 and the 12-month futures strip,
23 January 2002 – December 2002. The prices based on the NYMEX were utilized

1 because this data is readily available and an accurate reflection of actual market
2 activity. Attached, as Schedule JAB-3 is a list of the monthly data that I used to
3 make my recommendation.

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

5 A. Yes. When analyzing the monthly data from the year 2000 these prices were, for
6 the most part, extremely high compared to past price levels. In fact, two months,
7 October and December, seemed to be extreme outliers. October's settled price
8 was \$5.310 per MMBtu and December's settled price was \$6.016. I believe these
9 two prices are anomalies and I replaced them with the previous monthly highs for
10 those months, \$3.346 and \$3.901 respectively.

11 Q. Have you performed a calculation to see how your recommended price of \$2.78
12 per MMBtu would change if these anomalies in October and December prices
13 were not adjusted to reflect the previous monthly highs for those two months?

14 A. Yes. If I had not made the adjustments to the data for October and December of
15 2000 then my recommended price would be \$2.89 per MMBtu.

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

17 A. The prices for the months of June – December 2000 that I used in my calculation
18 were the highest ever for those particular months. The prices for September,
19 October, and December were over 50% greater than the next highest price for
20 those months, respectively. I changed October and December's prices because
21 those prices were over \$5.00 per MMBtu which is more than a dollar above my
22 \$2.00 to \$4.00 per MMBtu band that I believe natural gas will be over the next
23 few years.

1 Q. Does this conclude your direct testimony?

2 A. Yes it does.

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

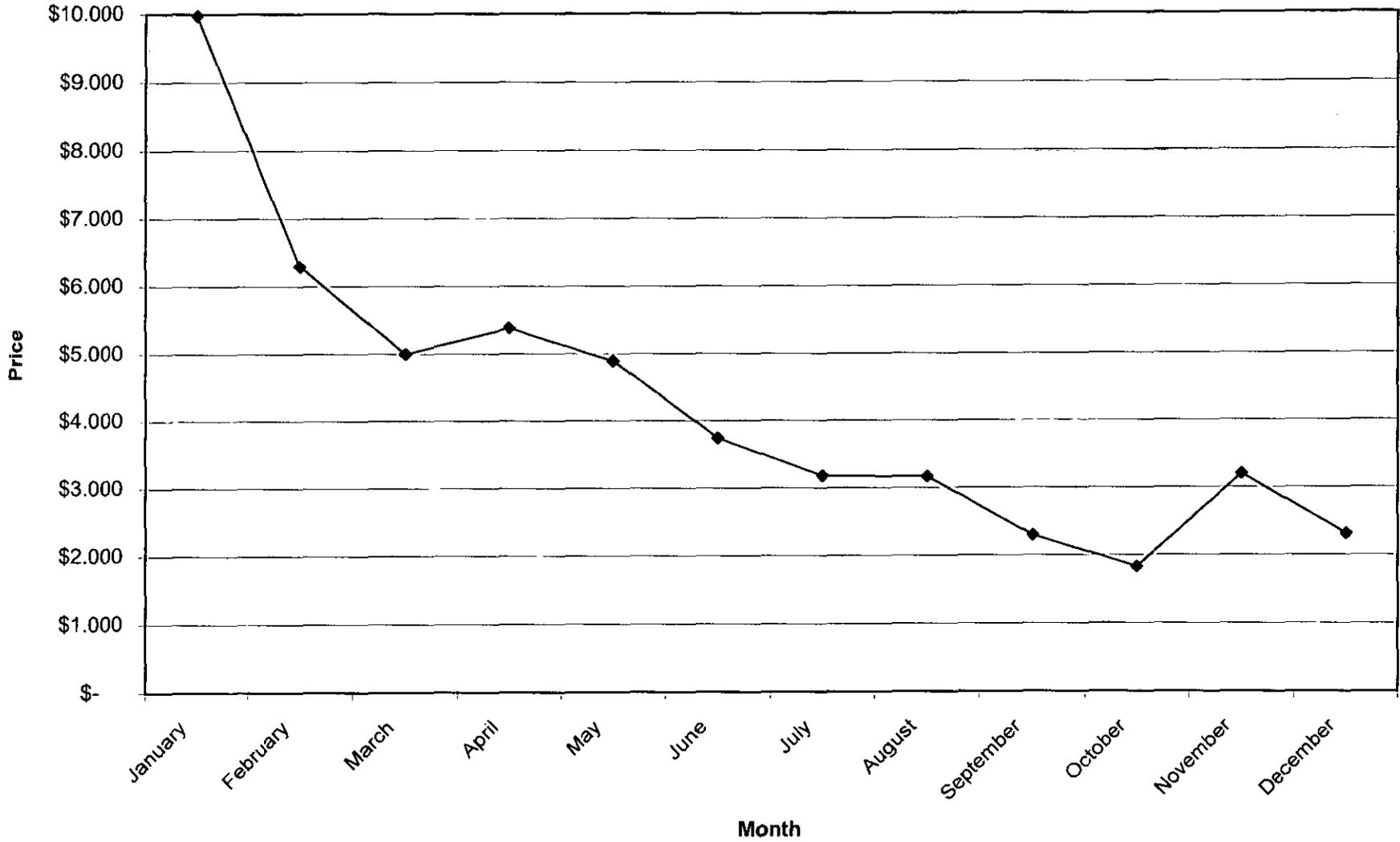
<u>Company</u>	<u>Case No.</u>
Union Electric Company	GR-97-393
Missouri Gas Energy	GR-98-140
Laclede Gas Company	GO-98-484
Laclede Gas Company	GR-98-374
St. Joseph Light & Power	GR-99-246
Laclede Gas Company	GT-99-303
Laclede Gas Company	GR-99-315
Fiber Four Corporation	TA-2000-23; et al.
Missouri American 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

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UtiliCorp United Inc.

Case No. ER-2001-672

2001 Monthly NYMEX Settlement Prices

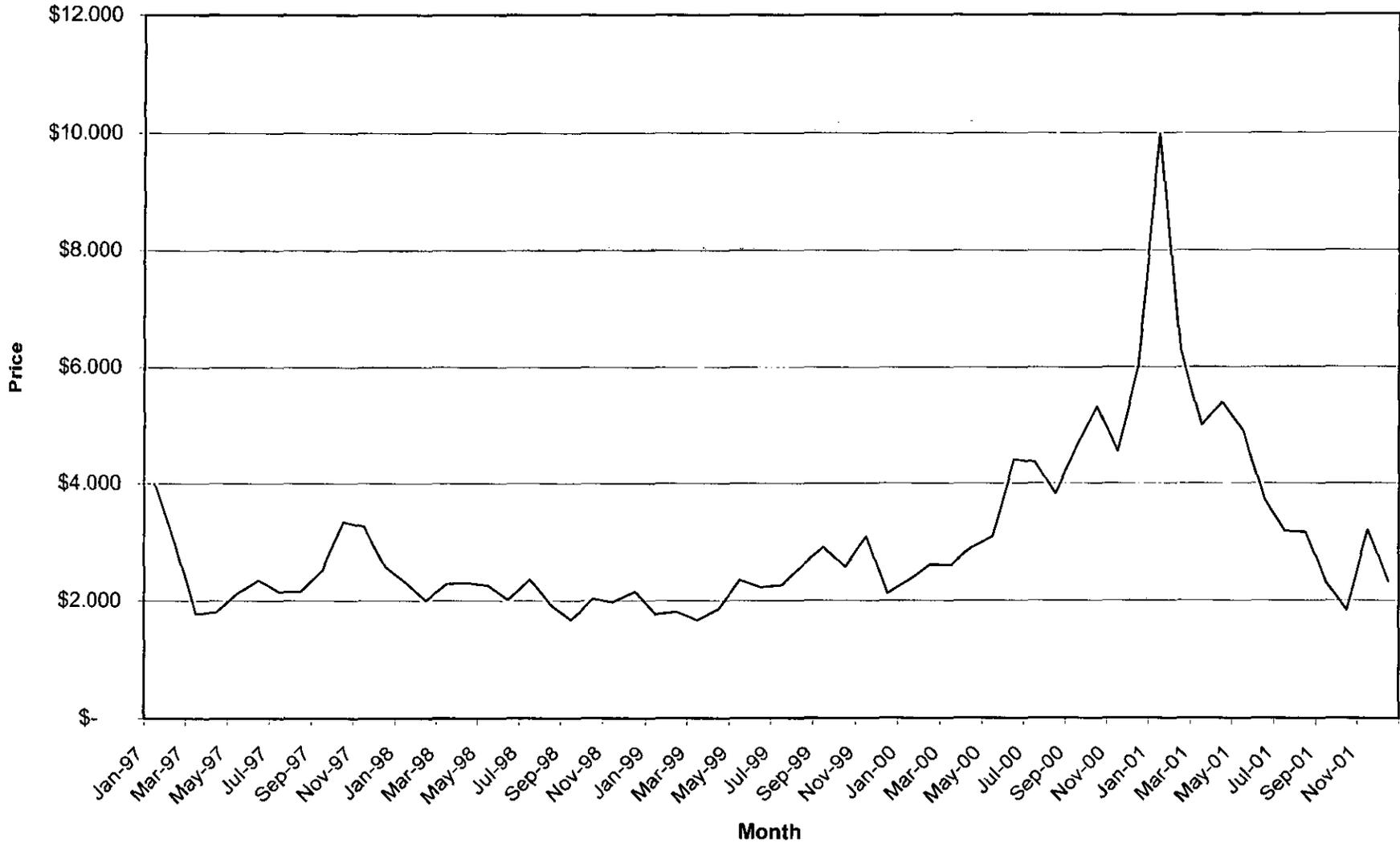


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ER-2001-672

5-Year NYMEX Monthly Settlement Prices



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Case No. ER-2001-672

Historical and Future Prices

Month	Price	NYMEX Settles	WNG First- of-Month Price	Basis Differential
Jan-99	\$ 1.765	\$ 1.765	\$ 1.78	(0.02)
Feb-99	\$ 1.810	\$ 1.810	\$ 1.75	0.06
Mar-99	\$ 1.666	\$ 1.666	\$ 1.57	0.10
Apr-99	\$ 1.852	\$ 1.852	\$ 1.74	0.11
May-99	\$ 2.348	\$ 2.348	\$ 2.22	0.13
Jun-99	\$ 2.226	\$ 2.226	\$ 2.12	0.11
Jul-99	\$ 2.262	\$ 2.262	\$ 2.17	0.09
Aug-99	\$ 2.601	\$ 2.601	\$ 2.50	0.10
Sep-99	\$ 2.912	\$ 2.912	\$ 2.77	0.14
Oct-99	\$ 2.570	\$ 2.570	\$ 2.43	0.14
Nov-99	\$ 3.092	\$ 3.092	\$ 2.94	0.15
Dec-99	\$ 2.120	\$ 2.120	\$ 2.06	0.06
Jan-00	\$ 2.344	\$ 2.344	\$ 2.25	0.09
Feb-00	\$ 2.610	\$ 2.610	\$ 2.49	0.12
Mar-00	\$ 2.603	\$ 2.603	\$ 2.47	0.13
Apr-00	\$ 2.900	\$ 2.900	\$ 2.79	0.11
May-00	\$ 3.089	\$ 3.089	\$ 2.94	0.15
Jun-00	\$ 4.406	\$ 4.406	\$ 4.19	0.22
Jul-00	\$ 4.369	\$ 4.369	\$ 4.20	0.17
Aug-00	\$ 3.820	\$ 3.820	\$ 3.69	0.13
Sep-00	\$ 4.618	\$ 4.618	\$ 4.50	0.12
Oct-00	\$ 3.346	\$ 5.310	\$ 5.19	0.12
Nov-00	\$ 4.541	\$ 4.541	\$ 4.43	0.11
Dec-00	\$ 3.901	\$ 6.016	\$ 5.90	0.12
NG 01 02	\$ 2.634			
NG 02 02	\$ 2.746			
NG 03 02	\$ 2.763			
NG 04 02	\$ 2.730			
NG 05 02	\$ 2.768			
NG 06 02	\$ 2.818			
NG 07 02	\$ 2.860			
NG 08 02	\$ 2.903			
NG 09 02	\$ 2.899			
NG 10 02	\$ 2.922			
NG 11 02	\$ 3.119			
NG 12 02	\$ 3.306			
			Basis Differential	0.12

3-year avg	\$ 2.90
OPC	
Recommendation	\$ 2.78