

EXHIBIT

Exhibit No.: \_\_\_\_\_

Issue(s):

Natural Gas Prices

Witness/Type of Exhibit: Busch/Cross-Surrebuttal

Sponsoring Party:

Public Counsel

Case No.:

EC-2002-1

**CROSS-SURREBUTTAL TESTIMONY  
OF**

**JAMES A. BUSCH**

Submitted on Behalf of the Office of the Public Counsel

Exhibit No. 94NP  
Date 7/10/02 Case No. EC-2002-1  
Reporter KLM

**UNION ELECTRIC COMPANY**

**Case No.: EC-2002-1**

**NP**

June 24, 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 )

ss


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 cross-surrebuttal testimony consisting of pages 1 through 6 and Schedules JAB-CSR-1 through JAB-CSR-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 24<sup>th</sup> day of June, 2002.

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

  
Kathleen Harrison, Notary Public

**CROSS-SURREBUTTAL TESTIMONY**

**OF**

**JAMES A. BUSCH**

**CASE NO. EC-2002-1**

**UNION ELECTRIC COMPANY**

**d/b/a AMERENUE**

Q. Please state your name and business address.

A. My name is James A. Busch and my business address is P. O. Box 7800, Jefferson City, MO 65102.

Q. Are you the same James A. Busch who filed rebuttal testimony in this proceeding?

A. Yes I am.

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

A. The purpose of my surrebuttal testimony is to address the manner in which the Company has used to develop natural gas prices in its fuel run.

Q. What methodology did the Company employ to determine the appropriate price of natural gas to be used in its fuel run?

A. According to the Company's response to OPC DR No. 6015, which is attached as Schedule JAB-CSR-1, the Company used a twelve-month average price based on the 12 months ending September 30, 2001. The natural gas price used was based on the average natural gas price of three of the Company's combustion turbines. These turbines are Pinkneyville, Gibson City, and Kinmundy.

1 Q. Do you believe that the Company's methodology is the appropriate method for  
2 determining the proper natural gas price to be used in the fuel run?

3 A. No, I do not.

4 Q. Why is the Company's methodology inappropriate?

5 A. The Company's methodology is inappropriate because it relies solely on a static,  
6 12-month snapshot of time to determine natural gas prices. As the Commission is  
7 well aware, the price of natural gas is extremely volatile. Therefore, simply  
8 choosing a singular, 12-month time frame to determine natural gas prices may not  
9 be fairly representative.

10 Q. Please explain.

11 A. For instance, I attached a schedule to my rebuttal testimony that showed the  
12 NYMEX monthly settlement prices for natural gas since January 1997. That  
13 graph showed that the price of natural gas was around \$4.00 per MMBtu in  
14 January 1997, dipped below \$2.00 in parts of 1998 and 1999, rose to \$10 in  
15 January 2001, and fell back to \$2 in February 2002. This is a dramatic roller  
16 coaster ride for the users of this commodity.

17 To illustrate my point, I have calculated various 12-month averages for the  
18 price of natural gas. The following graph shows the results of those calculations.  
19 The results show how volatile any given twelve-month period can be compared to  
20 another twelve-month period. This is important because dependent upon the 12  
21 months that could be chosen to determine the future price of natural gas will make  
22 a big difference in the price of natural gas to be utilized in the determination of  
23 rates.

Table of 12-month averages

Year	12 months ending December	Year	12 months ending May
1997	\$ 2.587	1998	\$ 2.460
1998	\$ 2.108	1999	\$ 1.965
1999	\$ 2.269	2000	\$ 2.611
2000	\$ 3.886	2001	\$ 5.385
2001	\$ 4.273	2002	\$ 2.781

Q. How does this table explain your point?

A. This table illustrates that utilizing the Company's methodology of using a given 12-month period for determining natural gas prices can provide a substantially different result. For example, using the 12 months ending May 1998 would produce a price of natural gas of \$2.460 per MMBtu, while using the 12 months ending December 1998 would produce a natural gas price of \$2.108. More importantly, with the increase of volatility in natural gas prices over the past few years, this point is even more striking. Using the 12 months ending December 2000, the price is \$3.886. Five months later, the 12 months ending May 2001, produces a price that jumps nearly \$1.50 to \$5.385. The 12-month price falls back over \$1.00 to \$4.273 for the 12 months ending December 2001, and drops another \$1.50 to \$2.781 for the 12 months ending May 2002. Thus it becomes critical, if not impossible, to chose the most appropriate 12 months if this approach is utilized. Therefore, I believe that my hybrid approach does a better job of providing a normalized level for the price of natural gas to be used in this proceeding.

1 Q. Since the price of natural gas that is utilized in the fuel run helps establish rates on  
2 a going forward basis, should not futures be utilized as the sole proxy for natural  
3 gas prices?

4 A. No. Futures prices are merely the market's price of natural gas for a future  
5 delivery date on any given date. Futures prices by themselves are not necessarily  
6 accurate predictors of future prices. However, futures prices are important in  
7 showing where current prices are and where the price may be headed in the next  
8 few months. Therefore, I utilize the hybrid approach of combining historical  
9 prices with the futures prices. In this way, I acknowledge where prices have been  
10 in the recent past and where the current market sees the future.

11 Q. What is AmerenUE's recommended price of natural gas compared to your price  
12 for natural gas?

13 A. My recommendation for the appropriate price of natural gas to use in the fuel run  
14 was \$3.659 per MMBtu. This is based on utilizing 24 months of historical data  
15 and the 12-months future strip. Further, this price is a weighted-average of the  
16 monthly prices that I calculated based on volumes provided to me by the  
17 Company in OPC DR No. 6009. Based on OPC DR No. 6015, the Company's  
18 equivalent price of natural gas is approximately \*\* .\*\*

19 Q. What would be the impact on the Company's fuel run if you utilized your natural  
20 gas prices in its model?

21 A. In OPC DR. No. 6016, I requested that the Company re-run its fuel run with my  
22 natural gas prices to show the impact of my natural gas price recommendation.  
23 Unfortunately, the Company objected to this request and did not perform the

1 analysis. The DR and the Company's objection are attached as Schedule JAB-  
2 CSR-2.

3 Q. Is there any other way to try and do a comparison between your natural gas prices  
4 and the Company's natural gas prices?

5 A. Yes, even though I do not believe that it is as valid a comparison as if my natural  
6 gas prices could have been used in the Company's fuel run. The alternate method  
7 would be to use the prices of natural gas that both methodologies determined and  
8 multiply then by the total amount of natural gas burned by the Company. To do  
9 this calculation, I used the total amount of natural gas burned as shown in the  
10 workpapers of Company witness Timothy Finnell. I have attached the appropriate  
11 sheet to my testimony as Schedule JAB-CSR-3. The total amount of natural gas  
12 burned for the 12 months ending September 2001 according to this sheet is  
13 7,880,806 MMBtus. This means that natural gas costs for AmerenUE using its  
14 methodology would be  $(7,880,806 * ** **)$  \*\*. \*\* Total natural gas  
15 costs using my methodology would be  $(7,880,806 * \$3.659)$  \$28,835,869.  
16 According to this "back of the envelope" attempt to determine the difference  
17 between my methodology and the Company's, my natural gas prices would lower  
18 AmerenUE's fuel costs by \*\* .\*\*

19 Q. Why don't you feel this is a good way of comparing natural gas prices?

20 A. I do not feel this is a good way to compare natural gas prices because the prices  
21 are used as inputs into an economic dispatch model. This means that certain units  
22 will run at different times depending upon the relative prices of the various inputs.  
23 Therefore, if my natural gas prices are lower, certain units may be used instead of

1           the units that were used in that time frame. This would have the effect of  
2           lowering the total difference between using my natural gas prices and the  
3           Company's natural gas prices.

4       Q. Did you ask Staff to re-run its fuel run with your natural gas prices?

5       A. Yes. I asked Staff to run its fuel run with my natural gas prices during the pre-  
6           hearing conference in this proceeding. I have just received the run with my  
7           natural gas prices, however, the Staff has updated its model and therefore a direct  
8           comparison between its direct filing and my natural gas prices cannot be made.

9       Q. Can you make a comparison between Staff's updated fuel run and Staff's updated  
10           fuel run with your natural gas prices?

11      A. Yes. If my natural gas prices are plugged into the Staff's fuel model, the updated  
12           fuel run would produce a result approximately \$1 - \$4 million less than the same  
13           fuel run with Staff's natural gas prices. This update holds all other variables and  
14           inputs constant; it merely uses my natural gas prices instead of Staff's.

15      Q. Does this conclude your cross-surrebuttal testimony?

16      A. Yes it does.



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AmerenUE's Response to  
OPC Data Request  
Case No. EC-2002-1  
Excess Earnings Complaint  
Staff of the MPSC v. Union Electric Company d/b/a AmerenUE

No: 6015

Please provide the actual prices for natural gas that the Company utilized in its fuel run.

**Response:**

The company used a twelve-month average price based on 12 months ending September 30, 2001. The price was based on the average gas price for Pinkneyville, Gibson City, and Kimmunity. See attached work papers for the fuel price source

Signed by:

Tim Finnell

Prepared by:

Tim Finnell

Title:

Supervising Engineer

JUN 14 2002

**SCHEDULE JAB-CSR-1**

**PAGE 2**

**HAS BEEN DEEMED**

**PROPRIETARY.**

**SCHEDULE JAB-CSR-1**

**PAGE 3**

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**SCHEDULE JAB-CSR-1**

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**SCHEDULE JAB-CSR-1**

**PAGE 5**

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**PROPRIETARY.**

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314.621.3222  
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JJCook@ameren.com

June 7, 2002

VIA FAX AND U.S. MAIL  
573-751-5562



Mr. John Coffman  
Office of the Public Counsel  
200 Madison Street, Suite 650  
Governor Office Building  
Jefferson City, MO 65101

Re: Case No. EC-2002-1

Dear Mr. Coffman:

AmerenUE hereby objects to OPC Data Request No. 6016. Asking the Company to re-run its production cost model with different inputs is not a discovery request; it is a request to perform an analysis or study, and as such is inappropriate as discovery.

If you have any questions, please contact me or Mary Hoyt to discuss our objection to this data request.

Very truly yours,

A handwritten signature in black ink, appearing to read "J. Cook", is written over the typed name and title.

James J. Cook  
Managing Associate General Counsel

Schedule JAB-CSR-2  
Page 1 of 3  
JUN 10 2002

Public Counsel Data Request

No. 6016

AMERENUE D/B/A UNION ELECTRIC  
CASE NO. EC-2002-1

Requested By: James Busch  
Requested From: Mary Hoyt  
Date of Request: May 30, 2002

Information Requested: Attached to this DR is a copy of my rebuttal testimony's Schedule JAB-3, my recommended monthly prices for natural gas. Please utilize these natural gas price inputs in the Company's fuel run, holding all other factors constant, and provide the results of utilizing my natural gas price inputs instead of Company's methodology.

This Response Includes:

☒ Printed Materials             Total Pages      ☒ Magnetic Media             Number of disks  
or tapes

Please number each section of multiple pages as:      File formats for data:                     

# of Total #

LIST PRINTED MATERIALS AND/OR FILES INCLUDED:

The information provided to the Office of the Public Counsel in response to the above information request is accurate and complete, and contains no material misrepresentations or omissions based upon present facts known to the undersigned. The undersigned agrees to immediately inform the Office of the Public Counsel if any matters are discovered which would materially affect the accuracy or completeness of the information provided in response to the above information.

DATE RECEIVED:                      SIGNED BY:                     

TITLE                     

JUN 10 2002

**OFFICE OF PUBLIC COUNSEL**

Union Electric Company

d/b/a AmerenUE

EC-2002-1

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

	2000	2001	2002	2003	Recommended Monthly Price
January		\$ 3.998	\$2.555	\$ 4.251	\$ 3.601
February		\$ 2.986	\$2.006	\$ 4.155	\$ 3.049
March		\$ 4.998	\$2.307	\$ 3.983	\$ 3.763
April		\$ 3.457	\$3.457	\$ 3.760	\$ 3.558
May		\$ 4.891	\$3.319	\$ 3.730	\$ 3.980
June	\$ 4.406	\$ 3.738	\$3.595		\$ 3.913
July	\$ 4.369	\$ 3.182	\$3.639		\$ 3.730
August	\$ 3.820	\$ 3.167	\$3.680		\$ 3.556
September	\$ 4.618	\$ 2.295	\$3.685		\$ 3.533
October	\$ 3.346	\$ 1.830	\$3.695		\$ 2.957
November	\$ 4.541	\$ 3.202	\$3.947		\$ 3.897
December	\$ 3.901	\$ 2.316	\$4.160		\$ 3.459



mpscrev3  
Oct 00 to Sep 01  
Million BTU Fuel Type

case=NORMALIZED

UTIL	Fuel	2000 MBTU	2001 MBTU
GEN	COAL	24,809,776	90,748,013
	GAS	84,747	6,646,493
	OIL	420,478	1,306,766
		25,315,001	98,701,292
UE	COAL	80,265,255	207,058,524
	GAS	79,796	1,234,313
	NUC	26,385,000	63,335,000
	OIL	38,395	405,624
		106,768,446	272,033,461
		132,083,447	370,734,753

Schedule JAB-CSR-3