

# EXHIBIT

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

Issue(s):

Witness/Type of Exhibit:

Sponsoring Party:

Case No.:

Natural Gas Prices

Busch/Direct

Public Counsel

ER-2001-299

## **DIRECT TESTIMONY OF JAMES A. BUSCH**

Submitted on Behalf of the Office of the Public Counsel

**The Empire District Electric Company**

**Case No.: ER-2001-299**

April 3, 2001

Exhibit No. 91  
Date 5/29/01 Case No. ER-2001-299  
Reporter KRM

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

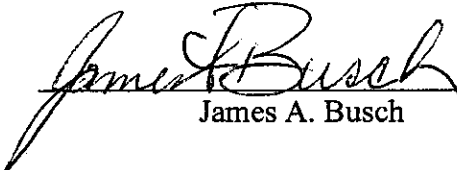
In the matter of the application of The Empire       )  
District Electric Company for a general rate       )  
increase.   )  
Case No. ER-2001-299

**AFFIDAVIT OF JAMES A. BUSCH**

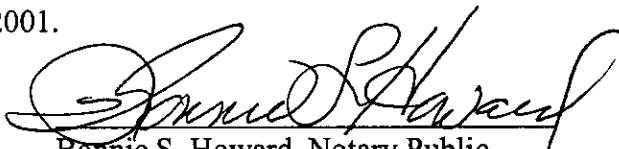
STATE OF MISSOURI       )  
                                      )  
COUNTY OF COLE       )  
                                      )  
                                      ss

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 direct testimony consisting of pages 1 through 6 and Schedule JAB-1 and JAB-2.
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 3<sup>rd</sup> day of April, 2001.

  
Bonnie S. Howard, Notary Public

My Commission expires May 3, 2001.

**DIRECT TESTIMONY**

**OF**

**JAMES A. BUSCH**

**CASE NO. ER-2001-299**

**EMPIRE DISTRICT ELECTRIC COMPANY**

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. By whom are you employed and in what capacity?

A. I am a Public Utility Economist with the Missouri Office of Public Counsel  
(Public Counsel).

Q. Please describe your educational and professional background.

A. In June 1993, I received a Bachelor of Science degree in Economics from  
Southern Illinois University at Edwardsville (SIUE), Edwardsville, Illinois. In  
May 1995, I received a Master of Science degree in Economics, also from SIUE.  
I am currently a member of the American Economic Association and Omicron  
Delta Epsilon, an honorary economics society. Prior to joining Public Counsel, I  
worked just over two years with the Missouri Public Service Commission as a  
Regulatory Economist in the Procurement Analysis Department and worked one  
year with the Missouri Department of Economic Development as a Research  
Analyst. I accepted my current position with Public Counsel in September 1999.

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.

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-2001-299?

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

10  
11 **Public Counsel's Recommendation**

12  
13 Q. What is Public Counsel's recommendation for the price of natural gas to be  
14 imbedded in rates in this case?

15 A. In this case, I believe that the price of natural gas that should be included for the  
16 purpose of reflecting proper fuel costs should be based on a four-year average of  
17 natural gas prices. The four years that I have utilized are the actual settlement  
18 prices based on the New York Mercantile Exchange (NYMEX) for the two years  
19 ended December 31, 2000 and the two-year futures strip price. Based on the  
20 closing 24-month strip price on March 30, 2001, the underlying price of natural  
21 gas I would recommend is \$3.912 per MMBtu. Attached, as Schedule JAB-2, is  
22 the calculation of my recommendation.

1 Q. Why did you utilize this type of four-year average for the basis of Public  
2 Counsel's recommendation?

3 A. I utilized this hybrid approach of historical and future data in recognition of the  
4 volatility of the natural gas market. I believe it is important to use both historical  
5 and future information to arrive at the appropriate natural gas cost to build into  
6 rates. Simply picking a date and using a 12-month strip of futures prices for  
7 natural gas prices does not have a lot of reliability. I will address these concerns  
8 in my rebuttal testimony. Therefore, combining the past with the future provides  
9 a better basis for establishing the level of natural gas costs to be reflected in the  
10 Company's rates in this case.

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

12 A. The pricing information is based on the NYMEX monthly settlement prices for  
13 the months January 1999 – December 2000 and the 24-month futures strip for the  
14 months May 2001 – April 2003, based on the March 30, 2001 closing prices. The  
15 prices based on the NYMEX were utilized because it is data that is readily  
16 available. I am currently awaiting some overdue responses to Data Requests that  
17 Public Counsel sent to the Company which may provide more guidance on this  
18 issue. If data arrives that causes me to alter my recommendation, I will submit  
19 my updated recommendation in rebuttal or supplemental direct testimony.

20 Q. What will be the affect on the Company and the ratepayers under your  
21 recommendation?

22 A. Under my recommendation, the ratepayers and the Company shareholders will  
23 share in the inherent price risk of procuring natural gas. As has been noted by

1 others, the price of natural gas is extremely volatile. For instance, in just the past  
2 two years, the price for natural gas has gone from around \$1.70 per MMBtu to  
3 nearly \$10.00 per MMBtu. By utilizing the hybrid approach, the Company's rates  
4 will reflect a level of fuel cost that is fair and which will allow the Company to  
5 benefit from prudent fuel management practices. The Company will be able to  
6 rely on its market expertise to procure natural gas economically, able to switch  
7 between the appropriate fuels to arrive at the most economically sound mix, and  
8 able to determine which plants to use to generate electricity in the most  
9 economically sound manner. The Company will benefit from the extent to which  
10 it can secure reasonable fuel costs.

11  
12 The ratepayers on the other hand will be protected from a price that is set in an  
13 arbitrary manner that puts greater risk on the back of the ratepayers. The  
14 ratepayers still will bear the risk of paying rates that reflect fuel costs that are too  
15 high if the price of natural gas continues to fall below the recommended level, but  
16 the detriment is less than under a plan that may be based solely on the futures  
17 market. Ultimately, this spreading of the risk to both parties, ratepayers and  
18 shareholders, is the fairest resolution of this issue.

19 Q. What are some of the ways that the Company can mitigate its risk profile?

20 A. The Company has a myriad of ways to mitigate any risk that it may have in  
21 procuring natural gas. One way is by locking in prices by using either futures or  
22 forward contracts. Futures contracts are generally traded on exchanges and are  
23 characterized by a standardized contract for delivery of the commodity. Forward

1 contracts are generally between an end-user and supplier and give the parties  
2 flexibility to meet any specific demands of either party. These types of contracts  
3 can be in varying lengths of duration from one-month to 20 years, depending on  
4 whether or not it is a standardized future contract (one-month to 3 years), or a  
5 forward contract (no restrictions on length).

6  
7 Other financial instruments available to the Company are call and put options.  
8 These instruments can be used either by themselves or in some combination of the  
9 two, such as in a collar arrangement. Option contracts protect the purchaser from  
10 adverse price movements while letting the purchaser participate in favorable price  
11 movements for only the cost of a premium. Adding these types of financial  
12 instruments with the future or forward contracts above provides the Company  
13 with many different avenues to protect itself.

14  
15 Furthermore, the Company can allow a third party to manage its natural gas  
16 purchasing activities. Allowing a third party to utilize its expertise and market  
17 clout to procure the Empire's portfolio may lower the actual price paid by Empire  
18 for natural gas.

19 Q. What other options may be available to the Company to help lower natural gas  
20 costs?

21 A. Other options available to the Company involve managing capacity release and  
22 off-system sales. The Company has had to contract for additional pipeline  
23 capacity to meet its increased demand for natural gas. With additional capacity to

1 meet its demand, the Company may have increased opportunities to release any  
2 excess capacity when its needs can be met by less capacity requirements than the  
3 Company's contracted maximum capacity levels. This is especially relevant  
4 when one considers that most of the need for capacity for Empire would be in the  
5 summer, and thus this electric company would have available capacity to release  
6 in the winter when other entities would have a greater need for it.

7  
8 Along with capacity release potential, the Company will have increased  
9 opportunities for off-system sales. Unlike capacity release, off-system sales are a  
10 bundling of capacity with the natural gas already purchased. The Company  
11 would have these opportunities whenever it has contracted for natural gas  
12 supplies, but no longer needs the natural gas to meet its needs.

13 Q. Please summarize your testimony.

14 A. In my testimony, I have provided Public Counsel's recommendation as to the  
15 appropriate level of natural gas costs that should be included in Empire's rates.  
16 The level that Public Counsel recommends is \$3.912 per MMBtu. This price was  
17 derived by taken a four-year average of natural gas prices. The four-year average  
18 that I utilized was a combination two-year historical plus a 24-month futures strip.  
19 This hybrid approach balances the inherent risk in procuring natural gas between  
20 the ratepayers and the shareholders.

21 Q. Does this conclude your direct testimony?

22 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

**Office of Public Counsel**  
**Natural Gas Cost Calculation**  
**Empire District Electric Company**  
**Case No. ER-2001-299**

NYMEX First-of-Month Settlement Prices		24-month Futures Strip as of March 31, 2001	
Jan-99	\$ 1.765	May-00	\$ 5.025
Feb-99	\$ 1.810	Jun-00	\$ 5.072
Mar-99	\$ 1.666	Jul-00	\$ 5.122
Apr-99	\$ 1.852	Aug-00	\$ 5.150
May-99	\$ 2.348	Sep-00	\$ 5.130
Jun-99	\$ 2.226	Oct-00	\$ 5.133
Jul-99	\$ 2.262	Nov-00	\$ 5.250
Aug-99	\$ 2.601	Dec-00	\$ 5.360
Sep-99	\$ 2.912	Jan-01	\$ 5.390
Oct-99	\$ 2.560	Feb-01	\$ 5.220
Nov-99	\$ 3.092	Mar-01	\$ 4.860
Dec-99	\$ 2.120	Apr-01	\$ 4.450
Jan-00	\$ 2.344	May-01	\$ 4.355
Feb-00	\$ 2.610	Jun-01	\$ 4.360
Mar-00	\$ 2.603	Jul-01	\$ 4.390
Apr-00	\$ 2.900	Aug-01	\$ 4.404
May-00	\$ 3.089	Sep-01	\$ 4.388
Jun-00	\$ 4.406	Oct-01	\$ 4.391
Jul-00	\$ 4.369	Nov-01	\$ 4.504
Aug-00	\$ 3.820	Dec-01	\$ 4.602
Sep-00	\$ 4.618	Jan-02	\$ 4.636
Oct-00	\$ 5.312	Feb-02	\$ 4.466
Nov-00	\$ 4.541	Mar-02	\$ 4.240
Dec-00	\$ 6.016	Apr-02	\$ 4.026
24-month average	\$ 3.077	24-month average	\$ 4.747

4-year average \$ 3.912