

Exhibit No.:
Issues: Transmission Line
Design/Route and
Configuration of
Proposed Line;
Construction
Clearing Practices
Witness: David DeWeese
Type of Exhibit: Direct Testimony
Sponsoring Party: Ameren Services
Case No.: EO-2002-351
Date Testimony Prepared: July 11, 2002

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EO-2002-351

FILED²

JUL 11 2002

Missouri Public
Service Commission

DIRECT TESTIMONY

OF

DAVID DEWEESE

St. Louis, Missouri
July 11, 2002

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

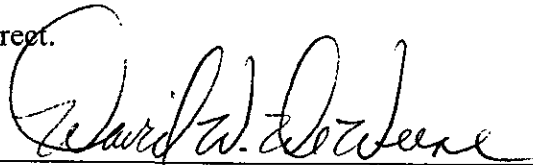
Application of Union Electric Company)
for Permission and Authority to Construct,)
Operate, Own and Maintain a 345 kilovolt) Case No. EO-2002-351
Transmission Line in Maries, Osage and)
Pulaski Counties, Missouri)
("Callaway-Franks Line"))

AFFIDAVIT OF DAVID W. DeWEESE

STATE OF MISSOURI)
) ss
CITY OF ST. LOUIS)

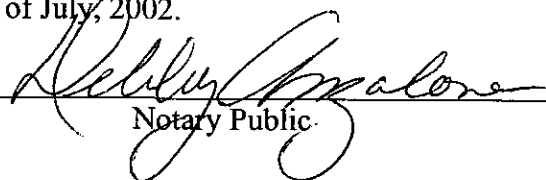
David W. DeWeese, being first duly sworn on his oath, states:

1. My name is David W. DeWeese. I work in St. Louis, Missouri and I am employed by Ameren Services Company as a Supervising Engineer of Transmission Design in the Energy Delivery Technical Services.
2. Attached hereto and made a part hereof for all purposes is my Testimony on behalf of Union Electric Company d/b/a AmerenUE consisting of 8 pages, which has been prepared in written form for introduction into evidence in the above-referenced docket.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.



David W. DeWeese

Subscribed and sworn to before me this 10th day of July, 2002.


Notary Public

My commission expires:

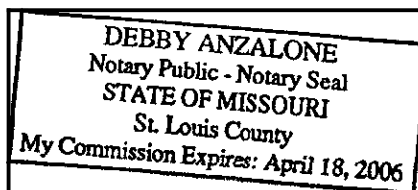


TABLE OF CONTENTS

- I. INTRODUCTION
- II. DESCRIPTION OF THE PROPOSED ROUTE AND HOW IT WAS SELECTED
- III. THE CONFIGURATION OF THE PROPOSED LINE
- IV. CONSTRUCTION CLEARING PRACTICES
- V. ACCOMMODATIONS WHICH THE COMPANY WOULD BE WILLING TO CONSIDER
- VI. COST AND FINANCING OF THE PROPOSED LINE
- VII. PROPOSED CONSTRUCTION SCHEDULE
- VIII. CONCLUSION

DIRECT TESTIMONY

OF

DAVID DEWEESE

AmerenUE

CASE NO. EO-2002-351

I. INTRODUCTION

Q. Please state your name and address.

A. David DeWeese, 1901 Chouteau Avenue, P.O. Box 66149, St. Louis, Missouri, 63166-6149.

Q. By whom are you employed and in what capacity?

A. I am employed by Ameren Services Company as the Supervising Engineer of Transmission Line Design in the Energy Delivery Technical Services Department. Ameren Services performs various technical and administrative services for Union Electric Company (the Company), doing business as AmerenUE, and other subsidiaries of Ameren Corporation (Ameren).

Q. What are your responsibilities in that position?

A. My responsibilities include directing and supervising the engineering group responsible for the design of electrical transmission line circuits. These circuits are typically 100 kV and above.

Q. How long have you been employed by Ameren Services Company?

A. I have been employed full-time by Ameren Services or one of its affiliate companies for approximately 20 years, 5 months. I have been employed at Ameren Services since January 1998, and prior

1 to that time, I was employed by Union Electric Company. I have been
2 in my present position for 1 year, 7 months.

3 **Q. What is your educational background?**

4 A. I have a Bachelor of Science degree in Civil Engineering
5 from the University of Missouri - Rolla and a Masters degree in
6 Business Administration from the University of Missouri - St. Louis.

7 **Q. Are you a registered professional engineer?**

8 A. I am a registered professional engineer in the state of
9 Missouri.

10 **Q. What is the purpose of your testimony?**

11 A. The purpose of my testimony is to support the Application
12 filed in January, 2002, by AmerenUE for permission to build the
13 proposed Callaway-Franks line by providing information regarding its
14 design and construction. In that regard, I will discuss the route of
15 the proposed transmission line and discuss its configuration and the
16 type of structures that will be used. Also, I will show that the
17 proposed route and line configuration is the least intrusive and most
18 reasonable of all of the options available. I will further discuss
19 the Company's willingness to make additional accommodations to
20 address the needs of affected property owners.

21 **Q. Please describe your involvement in the Callaway-Franks**
22 **project.**

23 A. I have provided and continue to provide direction and
24 supervisory guidance over the project and the design of the new
25 transmission line.

26 **II. DESCRIPTION OF THE PROPOSED ROUTE AND HOW IT WAS SELECTED**

27 **Q. Please describe the route of the proposed line.**

1 A. The new line will connect to the west circuit of the
2 existing Callaway-Bland 345 kV line near Chamois, Missouri. From this
3 point, the line will proceed in a southwesterly direction parallel to
4 an existing Central Electric Power Cooperative, Inc. 161 kV line
5 (Chamois-Maries). The new line will parallel the existing line for
6 approximately 43 miles. Near Brinktown, MO, the line will turn away
7 from the existing line and progress in a southerly direction for
8 approximately 11 miles to Associated Electric Cooperative's (AECI)
9 Franks Substation. [See Exhibit 1 - 345 kV Line attached to the
10 Application for a more detailed description]

11 **Q. Is there a map showing the proposed route?**

12 A. Yes. It is attached to my testimony and marked as
13 Schedule 1. This map shows the proposed route for its entire length.
14 This is the same map that was attached to the Company's Application
15 (marked as Exhibit 2).

16 **Q. Do you have any drawing showing the Company's existing**
17 **electric transmission facilities?**

18 A. Yes. It is attached to my testimony and marked as
19 Schedule 2. This is the same map that was attached to the Company's
20 Application (marked as Exhibit 3).

21 **Q. In what counties will the proposed line be located?**

22 A. Osage, Maries, and Pulaski Counties in Missouri.

23 **Q. Describe the land which the proposed transmission line**
24 **will cross.**

25 A. The proposed 54 mile line will cross pastures, wooded
26 areas, and fields.

27 **Q. How did the Company determine the route for the proposed**
28 **line?**

1 A. As identified in the AmerenUE/AECI joint study, discussed
2 in and attached to Mr. Mitchell's testimony, construction of the
3 Callaway-Franks 345 kV line in conjunction with the addition of other
4 facilities was determined to be the best alternative to relieve the
5 high loadings on AmerenUE's existing Bland-Franks 345 kV line. As
6 part of their contribution to this project, AECI assigned their
7 existing 345 kV easement rights to AmerenUE. AECI held
8 approximately 80 percent of the easements required for the new line.
9 By using these easements and paralleling the existing line for the
10 majority its length, a route was developed that will provide the
11 least land use and impact to the public and the most economical
12 alignment for the new transmission line. In addition, minor
13 modifications and adjustments were made to the line route based on
14 input received from the public at the informational workshops.

15
16 **Q. Do you consider the proposed route to be the least**
17 **obtrusive, the most compatible to the community as a whole, and the**
18 **most feasible from an engineering standpoint? If so, why?**

19
20 A. Yes. The existing route will allow sharing of the ROW for
21 approximately 43 miles to minimize the impact of the new line.
22 Paralleling the existing 161 kV line allows sharing of 25 feet of ROW
23 so that only 125 feet of new ROW will be necessary on the parallel
24 portion of the route. Approximately 11 miles of the proposed line is
25 not parallel to an existing line. This section will be on 150 foot
26 wide ROW. A separate route would impact a different group of property
27 owners and require a new ROW of 150 feet for the entire route.

1 **III. THE CONFIGURATION OF THE PROPOSED LINE**

2 **Q. Please describe the design and configuration of the**
3 **proposed line.**

4 A. The line will be designed to meet or exceed the current
5 requirements of the National Electric Safety Code. The line will be
6 constructed using predominantly two-pole wood, "H-frame" structures
7 averaging approximately 80 feet in height. This type of structure
8 design is reliable and cost effective.

9 **Q. Is it feasible to construct a double circuit 161/345 kV**
10 **line using the existing 161 kV line ROW of Central Electric? If not,**
11 **why not?**

12 A. No. To do so would require that the entire existing
13 Chamois-Maries 161 kV line be taken out of service for a period of up
14 to approximately two years. Because of its importance to Associated,
15 Central, and the region in general, it is simply not feasible to take
16 this circuit out of service for any extended period. Therefore, the
17 new construction can not be located within Central's existing 161kV
18 right-of-way.

19 **Q. Is it feasible to construct a double circuit 161/345 kV**
20 **line within the existing right of way? If not, why not?**

21 A. No, this is not a feasible option. Operating requirements
22 will not allow Central's 161 kV line to be taken out of service for
23 any extended period. As a result, any new construction would have to
24 be located on the 345 kV right-of-way adjacent to Central's existing
25 line intended for the proposed line. The type of structures that
26 would be required to accommodate a double-circuit configuration
27 would, most likely, require that they be constructed of steel and
28 utilize concrete foundations. This would increase the cost of the

1 project by 40 to 60%. Constructing double-circuit structures would
2 also require that the 345 kV right-of-way be cleared of vegetation to
3 similar extents as would be required for wood H-frame construction
4 and would have similar impacts to the properties being crossed.
5 Considering that this alternative would require a significant cost
6 premium and would have similar clearing requirements and property
7 impacts, double-circuit construction is simply not a practical
8 alternative.

9 **IV. CONSTRUCTION CLEARING PRACTICES**

10 **Q. Please discuss how AmerenUE would clear the affected right**
11 **of way to allow for construction of the proposed line.**

12 **A.** AmerenUE's preferred method of clearing for line
13 construction is to clear-cut the right-of-way by hand and dispose of
14 the brush by windrowing, burning, and/or chipping. One option for
15 handling logs is to cut logs over 12" in diameter into 10 to 20 foot
16 lengths and stack them along the edge of the right-of-way. Ameren
17 has very comprehensive specifications that address the various
18 aspects of right-of-way clearing and contractor responsibilities and
19 are rigidly enforced. Whenever feasible and permittable, Ameren
20 will honor any existing written agreements that property owners have
21 made with AECI.

22 **Q. What steps would the Company take to ensure that the**
23 **construction clearing is performed in a responsible manner?**

24 **A.** AmerenUE's Construction Supervisor will be on the job to
25 monitor the clearing contractor's work and adherence to the
26 requirements of the specifications. The Supervisor will also be
27 available prior to and during the clearing operation to address
28 property owners' questions, concerns and complaints.

V. ACCOMMODATIONS WHICH THE COMPANY WOULD BE WILLING TO CONSIDER

Q. Are there are any changes which the Company could make to its proposed route that might accommodate the concerns of the affected property owners?

A. Yes. Based on input from the public workshops, we have made some changes to the route and have since discussed additional accommodations with property owners. We will continue to meet with property owners to discuss alternatives provided these alternatives make prudent engineering and economic sense and do not simply push the line or concern onto another person's property.

VI. COST AND FINANCING OF THE PROPOSED LINE

Q. What is the estimated cost of the proposed line?

A. The estimated cost of the proposed line is 20 million dollars.

Q. How does the Company proposed to finance the construction of the proposed line?

A. Financing for the project will be from funds available in the Company's treasury, a portion of which may be obtained by new financing. The amount and nature of any new financing which is subject to the Commission's authority will be submitted to the Commission for approval.

VII. PROPOSED CONSTRUCTION SCHEDULE

Q. When would the Company begin construction of the proposed line?

A. We would begin immediately upon receipt of approval from the Commission.

1 **Q. When would construction be completed?**

2 A. We estimate about two full years of construction. Thus,
3 if the Commission issues an order in December of this year granting
4 us permission to proceed with construction, we estimate that
5 construction would be completed by December of 2004. The line would
6 be placed in service shortly thereafter.

7 **VIII. CONCLUSION**

8 **Q. Please summarize your testimony.**

9 A. The proposed route, structure type, and configuration of
10 the new transmission line all provide the best solution to connect
11 the Callaway and Franks substations. By utilizing existing utility
12 corridors and easements, this route will provide the least impact on
13 properties and the public as a whole. Building wood H-frame
14 structures adjacent to Central Electric Power Cooperative's existing
15 161 kV circuit provides the most cost-effective method of
16 construction while allowing Central to maintain the operating
17 integrity of its transmission system. AmerenUE has specifications
18 that address right-of-way clearing, line construction, and contractor
19 responsibilities. These specifications are strictly enforced by our
20 Construction Supervisor who will be on-site or on-call to address
21 problems or property owner concerns and complaints. It is AmerenUE's
22 intent to work with property owners and address their concerns and
23 questions throughout the design and construction process.

24 **Q. Does this conclude your testimony?**

25 A. Yes, it does.

Non-Scannable Maps

(Can be viewable in the Data Center)