Exhibit No.:

Issues: Origin of Callaway-

Franks Line; Benefits to **AECI** and Cooperatives

Witness: Gary L. Fulks

Sponsoring Party: Union Electric Company Type of Exhibit: Surrebuttal Testimony
Case No.: EO-2002-351

Date Testimony Prepared: September 4, 2002

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EO-2002-351

SURREBUTTAL TESTIMONY

OF

GARY L. FULKS

ON

BEHALF OF

UNION ELECTRIC COMPANY d/b/a AmerenUE

> Springfield, Missouri September, 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 Transmission Line in Maries, Osage, and Pulaski Counties, Missouri ("Callaway-Franks Line")				
	AFFIDAVIT OF GARY L. FULKS			
Washington, D.C.)				
United Stat	es of America)			
Gary	L. Fulks, being first duly sworn on his oath, states:			
1.	My name is Gary L. Fulks. I am employed by Associated Electric Cooperative, Inc. as			
	its Director of Engineering and Operations			
2.	Attached hereto and made a part hereof for all purposes is my Surrebuttal Testimony on			
	behalf of Union Electric Company d/b/a AmerenUE consisting of 9 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. Gary L. Fujks			
Subscribed and sworn to before me this 4th day of September, 2002.				
	Mastha 3. Binford			
	Notary Public			
My commiss	sion expires: 10/31/02			

1		SURREBUTTAL TESTIMONY
2		OF
3		GARY L. FULKS
4		CASE NO. EO-2002-351
5	Q.	Please state your name for the record.
6	A.	My name is Gary L. Fulks.
7	Q.	By whom are you employed and in what capacity?
8	A.	I am an employee of Associated Electric Cooperative, Inc ("AECI" or
9	"Associated")	. My title is Director, Engineering and Operations.
10	Q.	What is your business address?
11	A.	2814 S. Golden Street, Springfield, Missouri, 65807.
12	Q.	Would you briefly describe your post-high school education and your
13	work history	, including your positions with AECI?
14	A.	I graduated from the University of Missouri – Rolla in December of 1971 with
15	a Bachelor of	Science degree in electrical engineering. I worked at San Diego Gas &
16	Electric Comp	oany from November 1971 until April 1974 in the Electrical Engineering
17	Division. I be	egan work at AECI in April of 1974 as an Associate Planning Engineer, and
18	progressed to	Planning Engineer, Senior Planning Engineer, Manager of Planning, and
19	Manager of P	lanning and Engineering. Since January of 1996, I hold the position of
20	Director, Eng	ineering and Operations. I report directly to the CEO/General Manager. I am
21	responsible fo	or transmission planning and operations, resource planning and operations,
22	dispatch/contr	ol center operations, power marketing, fuels contracts including coal contracts,

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1 railroad contracts, and gas pipeline contracts, interchange and interconnection agreements 2 with neighboring utilities and environmental services. 3 Q. What industry positions do you hold, or have you held? 4 A. I currently serve on the Engineering and Operating Committee and the EC/OC Executive Committee of the Southeast Electric Reliability Council. I have previously served 5 6 on the Southwest Power Pool ("SPP") Engineering and Operating Committee, was the chair 7 of the SPP Reliability Criteria Subcommittee and was a member of the North-American 8 Electric Reliability Council's ("NERC") Reliability Criteria Subcommittee and NERC's 9 Threat Assessment Committee. 10 Q. What is the purpose of your testimony? 11 A. In response to contentions made by the Intervenors, I address AECI's involvement in the Callaway-Franks 345 kV line. I explain the history of the original 12 13 project, AECI's acquisition of the right of way for this transmission line, AECI's need for 14 this transmission line, and, finally, AECI's benefit and the benefits to AECI's member 15 cooperatives and their retail electric customers from AECI's participation in this project with 16 AmerenUE. 17 In preparing your testimony, have you reviewed any testimony previously Q. 18 filed in this case? 19 Yes. I have reviewed the testimony of Mr. Charles E. Mitchell of AmerenUE, A. 20 the rebuttal testimony of Mr. James L. Ketter of the Missouri Public Service Commission,

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and the rebuttal testimony of the person who I understand to be the Spokesperson for the

Intervenors Concerned Citizens of Family Farms and Heritage, Mr. Doug McDaniel.

1	Q. Mr. Fulks, please explain how AECI originally became involved in a
2	345 kV transmission line that follows the proposed route of the Callaway-Franks line.
3	A. In the mid-1970's AECI made a decision to add a 600 Mw coal-fired
4	generator to its Thomas Hill power plant in Randolph County, Missouri (referred to as
5	Thomas Hill Unit #3). At that time I held the position of Planning Engineer and worked for
6	AECI's Manager of Engineering and Operations, Mr. James E. McNabb. I was responsible
7	for the economic feasibility studies for the generator addition. I also developed the plans for
8	new transmission facilities necessary to deliver power from Thomas Hill Unit #3 to AECI's
9	transmission system in order to provide this power to AECI's member cooperatives and
10	eventually to serve their retail customers.
11	Q. Please describe the transmission facilities which were approved by
12	AECI's Board of Directors to deliver power from Thomas Hill Unit #3 to AECI's
13	transmission system.
14	A. These transmission facilities included approximately 135 miles of 345 kV
15	transmission line which would extend from a new 345 kV switchyard at Thomas Hill to a
16	new 345/161 kV substation at Kingdom City, to a location near AmerenUE's Callaway
17	substation, to a location near Central Electric Power Cooperative's Chamois power plant, and
18	finally to AECI's Franks substation near Dixon, Missouri.
19	Q. Is the part of the 135 miles of 345 kV line that AECI originally planned to
20	build from AmerenUE's Callaway substation to AECI's Franks substation essentially
	bund from Amerence 5 Canaway substation to AECT 5 Franks substation essentially

1	A.	Yes. As I discuss below, the proposed line is the same transmission line that		
2	AECI planne	d to build 20 years ago, and it is on the same route. The proposed AmerenUE		
3	Callaway-Fra	anks line will provide transmission benefits for AECI as well as AmerenUE.		
4	Q.	It has been suggested by the testimony of the Intervenors in this case that		
5	had AECI b	uilt the line 20 years ago the line would have been smaller and would carry		
6	lower voltag	e than the proposed AmerenUE Callaway-Franks line. Is that correct?		
7	A.	No. As stated earlier, AECI had planned to build a 345 kV line along this		
8	same route.			
9	Q.	Are you familiar with the design of the line AmerenUE plans to build?		
10	A.	Yes. It is my understanding that AmerenUE plans to use typical, wood pole		
11	H-frame structures that are approximately 80 feet in height on average. These structures			
12	generally con	sist of two poles with cross-arms and three poles at some turns in the line.		
13	Q.	Is the proposed AmerenUE design similar to the design AECI uses today		
14	and would h	ave used had AECI built the line 20 years ago?		
15	A.	Yes. AECI would have used essentially the same design, with poles of the		
16	same height,	20 years ago, and AECI still uses that same design today throughout its 345 kV		
17	system.			
18	Q.	Can you briefly describe the electric cooperative transmission and		
19	distribution	system in Missouri?		
20	A.	AECI is the statewide Generation and Transmission (G & T) cooperative		
21	whose primar	ry function is to generate electricity at various power plants and to transmit that		
22	electricity thr	oughout the state via 345 kV and 161 kV transmission lines owned by AECI		
23	and its memb	pers. AECI has six regional members, who are also G & T's, whose service		

- 1 areas cover various areas of the state, including Central whose service area covers the entire
- 2 middle part of the state. The regional G & T's generally own and operate 69 kV and 161 kV
- 3 transmission lines and substations that provide connections to their members. They also
- 4 operate the 345 kV facilities owned by AECI. The regional G & T's are owned by 51 local
- 5 distribution cooperatives that provide the electricity to over 750,000 retail customers.
- 6 Electricity that AECI generates and transmits on its system and on the rest of the integrated
- 7 electric grid, including on lines such as the proposed Callaway-Franks line, ultimately ends
- 8 up being sold to those local distribution cooperative retail customers.
 - Q. What was Central Electric Power Cooperative's role in the proposed
- 10 **project?**

- 11 A. AECI is the planning authority for cooperative transmission projects for lines
- of 161 kV or higher. It is the policy of Associated to designate its member G&T Cooperative
- located in the area of the construction as AECI's agent charged with the responsibility for the
- 14 construction of transmission lines and substations installed at voltages of 161 kV and above.
- 15 The proposed facilities are almost totally located within the service area of Central Electric
- Power Cooperative (Central). Accordingly, AECI's Board of Directors appointed Central as
- 17 AECI's agent to complete the steps AECI needed to build the line, including right of way
- acquisition, and designing, constructing and maintaining these facilities.
- 19 Q. Did AECI acquire the necessary right of way and proceed to construct
- 20 the Thomas Hill to Kingdom City to Franks 345 kV line?
- A. Partially. The right of way from Thomas Hill to Kingdom City and much of
- 22 the right of way from Kingdom City to Franks was purchased at that time.

- Gary L. Fulks 1 Q. Were the easements acquired in AECI's name? 2 Yes, the name on the easements was Associated Electric Cooperative, Inc. A. 3 Q. It has been suggested by the Intervenors that AECI paid less than fair sums for the easements. Do you agree? 4 5 Absolutely not. AECI paid fair market value in 1979 and 1980 for those A. 6 easements taking into account the size and scope of the easement and the areas to be crossed. 7 As I recall, the amount paid for right of way was consistent with other projects being built at 8 the time. None of the easements were taken by condemnation and if the property owner was 9 dissatisfied with what AECI offered they need not have granted the easement. 10 Q. Why wasn't all of the Kingdom City to Franks right of way purchased? During the time that Central was negotiating on AECI's behalf with the 11 A. 12 property owners along the route, AmerenUE made a corporate decision not to build Callaway 13 Generating Unit #2. This left AmerenUE with surplus capacity in their Callaway to Bland 14 345 kV line, which was designed and constructed with the capability to provide outlet 15 capacity for two units at Callaway. During one of our many joint transmission planning meetings, AmerenUE suggested that AECI consider delaying construction of the Kingdom 16 17 City to Franks line and purchase an undivided half interest in the Callaway to Bland 345 kV 18 line. I confirmed that this option would, in fact, delay the need for the Kingdom City to 19 Franks 345 kV line for many years, so AECI instructed Central not to purchase any more
- 20 right of way on the Kingdom City to Franks section of line while AECI negotiated the 21 purchase of an undivided half interest in Ameren UE's Callaway to Bland line. These 22 negotiations were successfully concluded, and a contract was eventually signed on June 7,

1983. This resulted in a win-win for AECI and AmerenUE because it allowed AECI to avoid

- a significant expense at that time while still meeting its transmission needs and the needs of
- 2 Missouri cooperatives for ultimate service to retail customers.
- 3 Q. Had AmerenUE not offered to sell an interest in the Callaway to Bland
- 4 line, would AECI have built the Kingdom City to Franks line approximately 20 years
- 5 **ago?**
- 6 A. Yes.
- 7 Q. As part of recent joint transmission planning studies with AmerenUE,
- 8 has AECI concluded that additional 345 kV facilities are now needed in central
- 9 **Missouri?**
- 10 A. Yes. Increased loading of the existing transmission facilities delivering power
- to the Franks area supports the need for new facilities in Central Missouri. For example,
- since 1979, AECI's loads in that area have increased 260%. AmerenUE's transmission
- planning engineers have performed detailed studies of the transmission system in this area.
- 14 These studies have been reviewed in detail by my transmission planning staff. In addition,
- 15 we have performed our own analysis and concluded that the proposed line from Callaway to
- 16 Franks is now needed. The proposed line will enhance reliability to our member
- 17 cooperatives and reduce the risk of overloaded facilities.
 - Q. Based on the benefits to AECI, has AECI offered to financially contribute
- 19 to the proposed project?

- 20 A. Yes. AECI and AmerenUE have negotiated a joint sharing of the costs of the
- 21 project, which reflect the mutual benefits to each party. A Letter of Intent dated May 25,
- 22 2001 and executed on June 1, 2001 memorializes the commitments of the parties. This
- 23 Letter of Intent was submitted with Mr. Mitchell's Direct Testimony as part of Schedule 4.

1	Q.	Please describe the Letter of Intent.
2	A.	The Letter of Intent provides for the following major features:
3		1. AECI will assign the easements it has obtained for the original Kingdom
4		City to Franks proposed line to AmerenUE. This includes about 43 miles
5		of right of way.
6		2. AmerenUE will acquire the remaining right of way.
7		3. AmerenUE will build and own a 345 kV from Chamois to Franks.
8		4. AmerenUE will have the right to install a substation near Chamois.
9		5. AECI will have the right to connect a 345/161 kV substation to the line
10		near Central's Rich Fountain substation.
11		6. AECI will provide a 345 kV breaker position in AECI's Franks substation
12		to terminate the line.
13		7. AECI will increase the transformation capacity at Franks to a least
14		625 MVA.
15	Q.	What would you estimate AECI's cost to participate in the project?
16	A.	The cost for the Franks substation facilities will be about \$3.4 million.
17	However, in a	addition, AECI has contributed 43 miles of right of way, and purchased an
18	undivided hal	f interest in the Callaway to Bland 345 kV line in 1983 at a cost of \$8 million,
19	which deferre	ed the construction of the proposed line for about 20 years.
20	Q.	Does AECI feel that this is an equal sharing of the costs?
21	A.	Yes. The project will provide mutual benefits to AmerenUE's customers and
22	AECI's coope	erative members, including their member distribution cooperatives and retail
23	electric coope	erative customers. It will provide needed transmission support for the central

- 1 Missouri area and minimize the risk of overloading the existing transmission facilities in the
- 2 area. AECI strongly believes that joint transmission projects, such as this, directly benefit
- 3 the customers of each company and is in the public interest.
- 4 Q. It has been suggested that AECI and Missouri cooperatives do not benefit
- 5 from the proposed Callaway to Franks line. Do you agree?
- A. No. As discussed above, AECI and Missouri cooperatives will benefit from
- 7 the increased capacity to transmit electricity to meet their needs as a result of the reduction in
- 8 overloading of existing facilities and the improved reliability those reductions bring to the
- 9 entire system. AECI would not have made the substantial investment at Franks or
- 10 contributed the right of way if the project would not benefit its members and the entire
- electric cooperative transmission and distribution system in Missouri.
- 12 Q. Does this conclude your testimony?
- 13 A. Yes it does.