

Exhibit No.:

Issues: System Support  
Agreement, Joint  
Dispatch Agreement

Witness: Beck

Type of Exhibit: Rebuttal

Sponsoring Party: MoPSC Staff

Case No.: EM-96-149

**MISSOURI PUBLIC SERVICE COMMISSION**

**POLICY & PLANNING DIVISION**

**DIRECT TESTIMONY**

**OF**

**DANIEL I. BECK**

**UNION ELECTRIC COMPANY**

**CASE NO. EM-96-149**

Jefferson City, Missouri

May, 1996

Exhibit No. 11  
Date 9-5-96 Case No. EM-96-149  
Reporter XF

1 REBUTTAL TESTIMONY

2 OF

3 DANIEL I. BECK

4 UNION ELECTRIC COMPANY

5 CASE NO. EM-96-149

6  
7 Q. Please state your name and business address.

8 A. My name is Daniel I. Beck and my business address is Missouri Public  
9 Service Commission, P. O. Box 360, Jefferson City, Missouri 65102.

10 Q. What is your present position with the Missouri Public Service  
11 Commission (Commission)?

12 A. I am a Utility Regulatory Engineer in the Economic Analysis  
13 Department of the Policy and Planning Division.

14 Q. Would you please review your educational background and work  
15 experience.

16 A. I have a Bachelor of Science Degree in Industrial Engineering from  
17 the University of Missouri at Columbia. Prior to joining the Commission in November,  
18 1987, I was employed by the Navy Plant Representative Office in St. Louis, Missouri as  
19 an Industrial Engineer. I am a registered professional engineer in the state of Missouri.

20 Q. What is the purpose of your rebuttal testimony?

21 A. The purpose of my testimony is to address the System Support  
22 Agreement (SSA) and the Joint Dispatch Agreement which were both included in Union  
23 Electric's (UE) merger application before the Commission.

**SYSTEM SUPPORT AGREEMENT**

1  
2 Q. What is a system support agreement and why is it part of UE's  
3 merger application?

4 A. A system support agreement is a commonly used contractual  
5 arrangement between two electric utilities to buy/sell capacity and energy. For this  
6 proposed merger the SSA was developed as part of a plan to transfer UE's Illinois  
7 customers to Central Illinois Public Service (CIPS), so that UE could operate solely in  
8 Missouri.

9 Q. What are the key components to this plan?

10 A. There are two key components to the plan to align the two operating  
11 companies along state lines:

- 12 1. The transfer of UE's Illinois distribution and customer service facilities  
13 to CIPS. This transfer includes the obligation to serve these customers as  
14 well as the physical distribution facilities that are dedicated to serving  
15 these customers; and  
16 2. The transfer from UE to CIPS the capacity and energy that is currently  
17 required by these Illinois customers.

18 Q. Can the transfer of UE's Illinois distribution and customer service  
19 facilities take place absent the SSA?

20 A. No. Although theoretically the SSA is not required for the transfer to  
21 take place, the reality is that some method of providing energy and capacity to these  
22 "transferred" customers must be devised that is fair to all interested parties. All

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1 customers of both UE and CIPS could be significantly impacted by the method by which  
2 this energy and capacity is supplied. As I will discuss further in this testimony, the  
3 transfer of UE's Illinois customers to CIPS without any provisions for the capacity and  
4 energy required to serve these customers could have significant negative impact on both  
5 UE's Missouri and Illinois customers.

6 Q. You mentioned that the capacity and energy would be based on the  
7 current needs of the Illinois customers. Would you please explain what this means?

8 A. Yes. In Appendix I of the SSA, capacity and energy requirements for  
9 each month of the year are specified. These requirements are based on 1994 weather  
10 normalized loads of the UE's Illinois customers. The SSA is not intended to meet the  
11 future load growth for UE's Illinois customers. The SSA has provisions that would  
12 change these requirements in the event that UE retires any generating unit, the Illinois  
13 retail electric territory transferred to CIPS experiences a significant loss of load, or other  
14 circumstances occur which may create an undue economic burden on either utility party.

15 Q. Is the Commission the only regulatory body which will review the  
16 SSA?

17 A. No. The Illinois Commerce Commission (ICC) as well as the Federal  
18 Energy Regulatory Commission (FERC) are currently reviewing this document. As Staff  
19 counsel has explained the Federal Power Act (FPA) to me, and based upon my own  
20 knowledge acquired in my work at the Commission, the FERC is the agency that stands  
21 to acquire greater jurisdiction as a result of this agreement.

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1 Q. Is it true that there have been several new or revised SSA proposals  
2 filed with the ICC?

3 A. Yes. First, it should be noted that UE filed a revised SSA with the  
4 Commission on April 5, 1996. This document included a signed and dated copy of the  
5 SSA with some corrections and revisions to Appendices 1 and 3 as well as a sample  
6 calculation of demand and energy charges based on 1994 data.

7 UE and the ICC staff have separately proposed and discussed several  
8 different options in testimony filed in ICC Docket No. 95-0551. These include the  
9 following:

- 10 1. Business as Usual - UE would continue to operate in two state  
11 jurisdictions with its present service territories and facilities but as a  
12 subsidiary of a registered public utility holding company. This would also  
13 require UE to meet the future load growth of both its Missouri and  
14 Illinois jurisdictional customers. UE/CIPS in surrebuttal testimony in  
15 Illinois has stated that they would be prepared to proceed with the merger  
16 even if the ICC decides not to approve the proposed transfer at this time.
- 17 2. Transfer Customers with a 30 Year SSA - This is the option that UE  
18 originally proposed in testimony filed before both the Missouri  
19 Commission and the ICC. This option would transfer UE's Illinois  
20 customers to CIPS, make CIPS responsible for any load growth, and  
21 make UE responsible for supplying energy and capacity at current levels  
22 for a period of 30 years.

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1                   3. Transfer Customers with a 10 Year SSA - The major change of this  
2                   option from the proposal that is currently filed with the Missouri  
3                   Commission is the length of the term of the SSA. UE/CIPS in rebuttal  
4                   testimony in Illinois is proposing a 10 year term instead of the original 30  
5                   year term. Under this proposal of UE, there is a phase out of the energy  
6                   and capacity that will be delivered to CIPS by UE during the sixth  
7                   through the tenth year of the SSA. The plan also includes UE's proposal  
8                   that the ICC should order CIPS to maintain separate rate divisions for a  
9                   minimum of 5 years to maintain the lower rates which UE's Illinois  
10                  customers enjoy compared to the rates charged by CIPS.

11                  4. Transfer Customers and CIPS Purchase of an Ownership Share of  
12                  UE's Existing Generation - This option suggested by the ICC staff  
13                  attempts to transfer both customers and generation to CIPS. However,  
14                  although this scenario appears to be simple in concept, this option would  
15                  literally make CIPS joint owners of all of UE's generating facilities and  
16                  possibly the related transmission facilities as well.

17                  5. Transfer Customers but Not Generation - This option suggested by  
18                  the ICC staff would result in UE having excess capacity over the next 5  
19                  to 10 years. UE would either have to pass the costs of this excess  
20                  capacity on to its Missouri ratepayers or take on the risks of selling this  
21                  capacity and associated energy in the markets for electricity.

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1 Q. Are these 5 options the only options that were discussed in the Illinois  
2 filings?

3 A. To the best of my knowledge, yes. But I must also add that these 5  
4 options are not the only options that could deal with the UE Illinois customer question.  
5 However, I do believe that these options represent a fairly diverse set of alternatives that  
6 will give the Commission an adequate perspective of the risks and benefits that would be  
7 faced by the parties involved.

8 Q. The first option you mentioned was Business as Usual. Could you  
9 please elaborate on this option?

10 A. The Business as Usual option is easy to define from a historic  
11 perspective. All obligations to serve and all regulatory responsibilities regarding UE's  
12 Missouri and Illinois territory would remain the same as exists today. Changes from  
13 UE's current operations would be due to the fact that UE would operate as a subsidiary  
14 of a registered public utility holding company. As I noted earlier, UE/CIPS in  
15 surrebuttal testimony in Illinois has stated that they would be prepared to proceed with  
16 the merger even if the ICC decides not to approve the proposed transfer at this time. If  
17 the transfer did not take place but the merger did, this option would by default be the  
18 chosen option.

19 Q. The second option you mentioned above is the option that is  
20 proposed in UE's direct testimony before the Commission, correct?

21 A. Yes. The Transfer Customers with a 30 Year SSA was Union  
22 Electric's attempt to transfer the customers to CIPS and yet still serve these customers

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1 with the generation that was built to supply their needs. The 30 year term of the SSA  
2 would ensure that Illinois customers have sufficient time to contribute to the recovery of  
3 costs of the current production and transmission facilities.

4 Q. Does UE believe that there would be savings from this transfer?

5 A. Yes. UE has stated in its Illinois rebuttal filing that the savings  
6 resulting from this transfer are approximately \$200,000 per year. In addition, UE  
7 believes that this transfer might eliminate or greatly reduce conflicting state regulatory  
8 requirements with which it alleges that it is presently confronted.

9 Q. Does the SSA contain the price of the capacity and energy that would  
10 be sold to CIPS in this agreement?

11 A. Yes and no. The SSA uses formula ratemaking for both capacity and  
12 energy. However since many of the inputs to this formula ratemaking are based on UE's  
13 experience during the previous calendar year, the exact price for capacity and energy  
14 during the term of this agreement is not known.

15 The formula for both energy and demand can be generally characterized  
16 as average cost to serve UE's native system. The energy calculation is a relatively  
17 simple calculation which takes into account the costs of fuel, variable maintenance and  
18 purchased power energy expense as well the revenue from sales for resale. The formula  
19 for demand is a rather complicated methodology which calculates a monthly demand  
20 charge for both production and transmission. The production allocation method used to  
21 allocate the demand charge is generally referred to as the 12 CP (12 monthly coincident



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1 peaks) method. Most of the demand formula is devoted to calculating a fixed charge  
2 rate for both production and transmission.

3 Q. Is the fact that the price for capacity and energy is defined by a  
4 formula and not a specific dollar amount a major concern?

5 A. In my opinion, no. Since none of the options provides a fixed price  
6 for capacity and energy, it would be unreasonable for any of the parties to assume the  
7 risk of a fixed price contract for 30 years. In the Business as Usual option, the price for  
8 electricity and the allocation of production and transmission costs are determined by the  
9 state commissions. This determination does not specifically set the price for the next 30  
10 years but instead determines the appropriate production and transmission costs in the  
11 context of each rate proceeding involving UE, when appropriate.

12 Q. Why would the FERC have regulatory authority over this SSA?

13 A. Since the SSA is a wholesale transaction between UE and CIPS,  
14 FERC would have jurisdiction over the determination of the Illinois portion of the  
15 production and transmission costs of the UE system for the entire 30 year term of the  
16 SSA. When the production and transmission costs are retail, not wholesale, these costs  
17 are regulated by this Commission and the ICC.

18 Q. Would such a shift in regulatory authority pose a problem?

19 A. In the Commission Staff's (Staff's) view, yes. Emerging issues and  
20 ongoing developments within the electric utility industry regarding retail wheeling,  
21 stranded costs, and other restructuring matters are likely to be addressed at the state and  
22 federal level in the near future. If the state of Illinois moves to retail open access and UE

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1 continues to serve the Illinois customers because there is no transfer, the ICC would  
2 maintain regulatory authority to determine the stranded cost treatment given UE for the  
3 portion of its generating plants used to serve its Illinois customers. Although an ICC  
4 determination would directly affect UE's Illinois customers, it would not impact on UE's  
5 *Missouri retail customers or the Commission. If UE's Illinois service territory is sold to*  
6 *CIPS and capacity and energy are sold to CIPS under an SSA, then the FERC would*  
7 *have jurisdiction over the stranded cost treatment. It would likely be argued that a*  
8 *FERC determination would have a direct impact on UE's Missouri retail customers and*  
9 *any related determination by the Commission.*

10 Q. Do you have any other specific concerns regarding the price of  
11 capacity and energy under the SSA?

12 A. Yes. Although most of the inputs to the pricing formulas can be  
13 directly tied to specific entries in UE's FERC Form 1 filings, which are submitted to this  
14 Commission in addition to the FERC, several inputs are not. The most notable  
15 exception is the nuclear decommissioning expense which is a direct input into the  
16 demand charge calculation. In Appendix 3, the calculation of the Illinois share of the  
17 nuclear decommissioning expense is initially set at \$425,000 and will be updated every 3  
18 years. However, there is no clear indication in the SSA that the updated calculation of  
19 Illinois share is to be based on this Commission's determination of decommissioning  
20 costs for UE's Callaway nuclear power plant which pursuant to 4 CSR 240-20.070 and  
21 Section 393.292 RSMo 1994 is revisited every 3 years. Since the current operating  
22 license for UE's Callaway nuclear power plant will expire in 2024, the determination of

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1 decommissioning expense is a relevant concern respecting the SSA. When the term of  
2 the SSA expires, UE shareholders and Missouri jurisdictional customers will likely bear  
3 the burden if this portion of the nuclear decommissioning trust fund is underfunded.

4 A second input that is not directly tied to the FERC Form 1 is the return  
5 on common equity which is specifically set at 12.26% for the initial 5 years of the  
6 agreement and thereafter may be renegotiated by UE and CIPS if conditions in Article  
7 5.1 of the SSA are met.

8 The third notable deviation from the pricing formulas is in Article 5.2 of  
9 the SSA and states that UE and CIPS "agree to perform an annual reconciliation of the  
10 actual costs for the previous year and to adjust the formula energy rate to reflect the  
11 difference in actual versus billed costs for the previous year in the formula energy rate for  
12 the coming year." However, the timing and duration of these rate adjustments is not  
13 defined in the SSA.

14 Q. Do you have other concerns regarding the SSA?

15 A. Yes. Earlier in my testimony I pointed out that the terms of the SSA  
16 can be changed in several areas:

- 17 1. Level of capacity and energy - This change could occur due to the  
18 retirement of a current UE generation unit.
- 19 2. Pricing of capacity - Since nuclear decommissioning costs and return  
20 on common equity are not clearly set based on historical or actual data,  
21 the inputs appear to be subject to negotiation by the parties and approval  
22 by the FERC.

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1                   3. Pricing of energy - The pricing of energy includes both an annual  
2                   calculation of the energy rate to begin in June of each year and an annual  
3                   reconciliation of the actual energy costs to take place at some unspecified  
4                   time each year.

5                   Additional changes are also possible if the Joint Dispatch Agreement is  
6                   terminated or modified or if changes are required in order to receive regulatory approval.  
7                   Although the above list of possible changes appears to be fairly comprehensive, Article  
8                   10.2 also allows for changes in the agreement "in order to avoid the creation of an undue  
9                   economic burden on either Party." Two specific examples of changes that could be  
10                  made are set out in the SSA:

- 11                   1. Reductions in contract capacity and energy to reflect significant loss of  
12                   load in the Illinois retail electric territory transferred to CIPS.  
13                   2. Changes in the formula rates for demand or energy in order to avoid  
14                   the creation of an undue economic burden.

15                  The first example appears to be a relevant concern depending on the definition of the  
16                  word "significant," but the second example only highlights the Staff's concern that this  
17                  clause could literally allow for modification of any part of the SSA by the parties.

18                  Q. What are your conclusions regarding the Transfer Customers with a  
19                  30 Year SSA option?

20                  A. Under the SSA, Missouri ratepayers would be directly impacted by the  
21                  transfer of jurisdiction to the FERC. The ratemaking treatment would be to use the  
22                  revenues paid by CIPS to UE under the SSA as an offset to costs. Currently, the

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1 generation and transmission facilities used to serve UE's Illinois customers are  
2 determined through jurisdictional allocations before both this Commission and the ICC.  
3 Thus, for ratemaking in Missouri, it is this Commission that determines what costs are  
4 relevant for serving UE's Missouri retail customers.

5 UE and CIPS have attempted to reflect the allocations of those costs in  
6 the structure of the SSA. However, it appears to me that there is sufficient uncertainty  
7 concerning how the FERC will allocate these costs and the possible effects of a FERC  
8 determination on emerging electric issues to outweigh the potential savings to Missouri  
9 ratepayers of \$200,000 per year from the transfer of UE's Illinois customers to CIPS  
10 (although UE has not specifically offered to share these savings).

11 Q. Please describe the third option that you have identified.

12 A. The third option, Transfer Customers with a 10 Year SSA is similar  
13 to the previous option but in an attempt by UE/CIPS to address several concerns that  
14 were expressed in the ICC staff's direct testimony. In this option, proposed by UE  
15 witness Gary L. Rainwater in his rebuttal testimony before the ICC, the SSA would have  
16 a 10 year term and phase out the buy/sale of energy and capacity during the sixth  
17 through the tenth years of the agreement. This option is significantly different from the  
18 first two options because of two factors:

- 19 1. The shorter term of the SSA increases the Missouri ratepayers' risk of  
20 having to bear the stranded cost risk of the capacity built for UE's Illinois  
21 customers. However, just the mere fact that capacity will be returned to  
22 UE ratepayers does not guarantee that the cost of this returned capacity

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1 will be stranded costs. The level of stranded costs, if any, will ultimately  
2 be determined by whether UE is able to sell or use this capacity in an  
3 economic manner. To evaluate this risk, estimates of the future market  
4 price and costs of capacity will need to be developed.

5 2. UE's current load forecast for the Missouri jurisdiction also shows the  
6 need for peaking and intermediate capacity in increments that generally  
7 approximate the capacity that will be returned during the phase out in the  
8 sixth through tenth years. However, UE's current resource plan shows  
9 that most of this need would be for peaking capacity. In essence, this  
10 proposal after year five returns to UE a combination of base, intermediate  
11 and peaking capacity for which most of the capital costs have already  
12 been committed, instead of purchasing peaking and intermediate capacity  
13 in the future at a more uncertain price.

14 Q. Has the ICC staff had any reaction to this option?

15 A. Yes. The ICC staff in its rebuttal testimony stated that a 10 year SSA  
16 would be preferable to a 30 year SSA. However, the ICC staff also recommends that  
17 neither SSA option be accepted by the ICC. In addition, the ICC staff recommends that  
18 the ICC not approve the proposed customer and property transfer from UE to CIPS for  
19 two reasons: loss of retail regulatory authority and the determination that the SSA is not  
20 the least-cost option for supplying power to the customers in UE's present Illinois  
21 service territory.

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1                   The Staff has not had time to study the details of the Illinois staff's  
2                   determination of the least-cost options, and the Staff is concerned with the basis used by  
3                   the ICC staff for determining least-cost and the ICC staff's focus on UE's Illinois  
4                   customers exclusively.

5                   Q. What is your concern regarding the basis used by the ICC staff's  
6                   calculation for determining least-cost?

7                   A. Based on my reading of the testimony, it appears that the ICC staff's  
8                   calculation of the least cost plan does not include the cost of the Illinois customers'  
9                   responsibility for generation and transmission assets that were built to serve that load.  
10                  While this calculation might be relevant for estimating the potential level of stranded  
11                  costs, the ICC staff's testimony did not appear to treat it as such. Moreover, I did not  
12                  find any recommendations by the ICC staff regarding the treatment of stranded costs.  
13                  Instead it appears that the ICC staff's least-cost plan assumes that someone else is  
14                  responsible for the cost of these assets. The Staff can only speculate whether it is the  
15                  ICC staff's intention that the Missouri ratepayers or the UE shareholders would be left to  
16                  bear these costs.

17                  Q. Why is the Staff concerned with the ICC staff's focus on the Illinois  
18                  customers?

19                  A. Earlier in my testimony, I stated that the Staff believes that the phase-  
20                  out of capacity could have some benefit when UE's forecasted need is taken into  
21                  account. Since CIPS faces the potential of lost loads, the gradual addition of the UE's  
22                  Illinois loads could be of benefit to both CIPS' ratepayers and shareholders. In saying

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1 that CIPS faces the potential of lost loads, I am referring to the ICC staff's concern that  
2 retail wheeling may cause a significant amount of lost load and the fact that CIPS  
3 currently has a significant amount of off-system capacity sales that will expire at various  
4 intervals in the future.

5 Q. Did the ICC staff speculate on the likely response of the Commission  
6 to the 10 year SSA proposal by UE?

7 A. Yes. First, it must be noted that UE stated in its rebuttal testimony  
8 that one of the conditions for UE offering the 10 year SSA option is the Commission  
9 determination that the UE/CIPS proposed changes to the SSA are appropriate. In  
10 response to this condition, ICC staff member Eric P. Schlaf stated in his rebuttal  
11 testimony that he would be surprised if the Commission finds that the 10 year SSA is  
12 preferable to the original 30 year proposed SSA.

13 In addition, Mr. Schlaf states at page 3 of his rebuttal testimony that "[i]t  
14 appears to me that a contract with a shorter term increases the likelihood that Missouri  
15 ratepayers could be responsible for costs associated with producing for the Metro East  
16 customers." While he is correct in his identification of this risk, the existence of this risk  
17 does not eliminate the potential benefits that may also be derived from the 10 year SSA.

18 Q. Please inform the Commission as to the Staff's current schedule for  
19 completion of the review of this 10 year SSA.

20 A. In a pleading filed on April 24, 1996, Staff requested that it be  
21 allowed to file supplemental direct testimony on May 21, 1996. During the next two  
22 weeks, Staff will attempt to complete its review of the proposed 10 year SSA. The 10



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1 year SSA option is interesting since the phase out would incrementally return control of  
2 capacity to UE at the approximate time that UE currently projects that its Missouri only  
3 jurisdiction will need capacity.

4 Q. Please comment on the other two options that you identified above in  
5 your rebuttal testimony as being addressed before the ICC.

6 A. The remaining two options do not appear to be viable at this time.  
7 The fourth option, Transfer Customers and CIPS Purchase of an Ownership Share of  
8 UE's Existing Generation, would resolve the jurisdictional concerns created by any SSA  
9 and would seem to be a viable solution until the details are closely examined. UE  
10 witness Gary L. Rainwater in his rebuttal testimony before the ICC identified several  
11 problems including increased difficulty in releasing property from mortgage indentures,  
12 subjecting CIPS to regulation by the Nuclear Regulatory Commission, and potentially  
13 increasing CIPS' equity ratio to unacceptably high levels. In addition the accounting  
14 burden for this option is likely to be overwhelming. UE believes that "[w]hile this option  
15 is conceptually possible, these serious side effects would make it impractical."

16 The fifth option, Transfer Customers but Not Generation, in the Staff's  
17 opinion is the worst possible option for all concerned, ratepayers and shareholders alike.  
18 This would put the Missouri ratepayers and UE's shareholders at risk for the stranded  
19 costs resulting from excess capacity. Even the Illinois customers would face greater  
20 risks under this option since the market price for a mix of base load, intermediate load,  
21 and peaking capacity is partially determined by the cost of new generation. However, if  
22 the Illinois customers were suddenly thrown into the market for capacity, but they could

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1 not consider a significant portion of that market, namely new generation which has to be  
2 built and is therefore not immediately available, the resulting market price might not  
3 result in a truly least-cost option for the Illinois customers.

4 **JOINT DISPATCH AGREEMENT**

5 Q. What is a joint dispatch agreement (JDA)?

6 A. A joint dispatch agreement is a contract between at least two parties,  
7 in this case UE and CIPS, to dispatch their combined generating resources in the most  
8 efficient manner possible. To accomplish this efficiency, a single agent (in this case  
9 Ameren Services Company) will control the dispatching functions that are currently  
10 performed separately by each company. These functions include:

- 11 1. Coordinating system dispatch
- 12 2. Maintain reliability
- 13 3. Arranging and scheduling Off-System Purchases and Off-System Sales
- 14 4. Coordinating transmission services
- 15 5. Provide billing services
- 16 6. Operate and maintain a central control center
- 17 7. Other activities and duties as assigned.

18 Q. Other than the dispatching agent and the two parties, does this  
19 agreement identify any other specific entities that will help carry out this agreement?

20 A. Yes. The Operating Committee is to be the administrative  
21 organization overseeing the proper execution of the JDA. It will consist of 4 members  
22 with 2 members designated by each party.

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1 Q. Other than defining the duties and obligations of the various entities  
2 that are identified in this agreement, what other subjects are addressed in this agreement?

3 A. The majority of the remaining document is devoted to the assignment  
4 and billing of costs, benefits and revenues primarily between the two parties, UE and  
5 CIPS. The cornerstone of this effort is the After-the-Fact Resource Allocation that is  
6 applied to energy related costs.

7 Q. How is the term "After-the-Fact Resource Allocation" defined in the  
8 JDA?

9 A. The term "After-the-Fact Resource Allocation" is defined in the JDA  
10 as follows:

11 1.01 After-the-Fact Resource Allocation shall mean a methodology used  
12 to assign the Combined System's Generating Resources and Off-System  
13 Power Purchases to each Party's Load Requirements and to the  
14 Combined System's Off System Sales. After-the-Fact Resource  
15 Allocation shall be run for each calendar day after the calendar day has  
16 transpired.

17 A. Are there any other terms that are defined in this JDA that would aid  
18 in the understanding of "After-the-Fact Resource Allocation"?

19 Q. Nineteen different terms are defined in Article I of the JDA.  
20 Although the principles of the After-the-Fact Resource Allocation involve many of the  
21 other terms, it is important to understand that the goal of this After-the-Fact Resource  
22 Allocation process is to determine the revenue adjustments associated with the terms  
23 System Energy Transfer and Off-System Sales Margin. These two terms are defined as  
24 follows:  
25

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1                   1.19 System Energy Transfer shall mean the transfer of electric energy  
2                   from one Party's Generating Resources to the other Party to serve the  
3                   Other Party's Load Requirements.  
4

5                   1.14 Off-System Sales Margin shall mean the difference between the  
6                   energy revenue collected from Off-System Sales and the energy cost of  
7                   providing such sales, as assigned by the After-the-Fact Resource  
8                   Allocation.  
9

10                  Q. Is an After-the-Fact Resource Allocation preferable to an average  
11                  cost allocation for this JDA?

12                  A. Yes. An average cost methodology would assume that the average  
13                  cost to serve the Ameren total system load is the same as the average cost to serve each  
14                  party, regardless of the existing generation owned by each party. However, the average  
15                  cost of UE's existing generation is currently significantly less than the CIPS average cost  
16                  for two major reasons:

- 17                         1. The fuel cost of the Callaway nuclear power plant is lower than the
- 18                         fuel cost of coal-fired generation; and
- 19                         2. The primary fuel choice for coal-fired generation: lower cost western
- 20                         coal of UE vs. higher cost eastern coal of CIPS.

21                  To ensure that neither the ratepayers nor the shareholders are harmed by the cost  
22                  allocation method, the average cost methodology must not be used for the JDA.

23                  Q. If all generation were simply dispatched based on incremental costs,  
24                  would After-the-Fact Resource Allocation as outlined in the JDA provide a reasonable  
25                  allocation to each utility?

26                  A. Yes, assuming that all costs were incurred in a prudent manner and all  
27                  calculations met the principles of the After-the-Fact Resource Allocation.

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1 Q. What do you mean by the phrase "principles of the After-the-Fact  
2 Resource Allocation"?

3 A. In Article 6.07 of the JDA, 7 principles that the After-the-Fact  
4 Resource Allocation should be consistent with are specified. Unlike the SSA, the JDA  
5 does not specify the exact rate or rate formula. Instead the general principles by which  
6 future calculations are to be made are outlined in the JDA. It should also be noted that  
7 further guidance regarding the After-the-Fact Resource Allocation is given in the  
8 following sections of the JDA:

9 Article 6.08	Distribution of the Off-System Sales Margin
10 Service Schedule A	System Energy Transfer
11 Service Schedule B	Distribution of Off-System Sales Margin
12 Service Schedule C	Recovery of Incremental Costs Relating to
13	Emission Allowances
14	

15 Q. Have you worked through the calculations to simulate the After-the-  
16 Fact Resource Allocation for one month? One day? One hour?

17 A. No. The data from a truly joint dispatched Ameren system is not  
18 available since this proceeding is just one of the regulatory hurdles that this merger must  
19 clear before joint dispatch operations can begin. Although the principles that would  
20 guide this calculation are provided in the JDA, it is my understanding that the computer  
21 program that would ultimately perform this hour by hour calculation is not yet written.

22 Q. Is UE or CIPS dispatched simply on an incremental fuel cost basis?

23 A. No. I'm not aware of any utility that is truly dispatched solely on an  
24 incremental fuel cost basis. If incremental fuel costs were the only criteria used, the

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1 result would most surely be uneconomic because other constraints such as transmission  
2 voltage support and generating constraints (minimum loading requirements, unit startup  
3 costs, spinning reserves or must run status) have significant economic implications.

4 Q. What are the implications of these additional constraints on the After-  
5 the-Fact Resource Allocation methodology?

6 A. The most obvious effect in this case is that Article 6.07 c) of the JDA  
7 attempts to address this issue. However, the allocation procedure will always allocate  
8 the generating unit to the owning party unless the other party is "clearly identified as the  
9 reason for the generation." I am concerned that (1) the burden of showing that the non-  
10 owning party is the reason for the generation appears to be rather stringent and that (2)  
11 no provision is made for gathering the data that would be required to make this showing.

12 Q. Could you give a specific example that would result in the incorrect  
13 allocation of generating costs?

14 Q. Yes. During the production cost modeling runs performed by Staff  
15 witness Tom Y. Lin, several units from both UE and CIPS were made "must run" units.  
16 The fact that this constraint is placed on generation does not by itself ensure that the  
17 incorrect allocation of generating costs will occur. However, if, for example, CIPS  
18 "must run" generation provides more energy than CIPS loads would require, the output  
19 of UE units with lower incremental costs might be reduced and the higher cost CIPS  
20 generation might be transferred to UE.

21 Q. Would the data be available to make the determination of After-the-  
22 Fact Resource Allocation?

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1                   A. Although the JDA specifies that the agent will do the After-the-Fact  
2 Resource Allocation, the JDA does not detail how the data that would be required to  
3 perform this allocation will be collected. The JDA also does not require that the data  
4 and the calculations involved in the After-the-Fact Resource Allocation be kept.  
5 Maintaining the data and calculations would ensure that the resulting allocation could be  
6 audited by the Commission at a later date.

7                   Q. Are any other costs or allocation of costs included in the JDA?

8                   A. Yes. Article VI of the JDA titled Assignment of Costs and Benefits  
9 of Coordinated Operations contains eight general categories of costs and benefits:

- 10                   1) Fixed Costs of Existing Generating Resources,
- 11                   2) Environmental Costs of Existing Generating Resources,
- 12                   3) Demand Charges from Existing Off-System Purchases,
- 13                   4) Demand Charges from New Off-System Purchases,
- 14                   5) Demand Charges from Existing Off-System Sales,
- 15                   6) Demand Charges from New Off-System Sales,
- 16                   7) Assignment of Energy and Costs from System, and
- 17                   8) Distribution of Off-System Sales Margin.

18  
19                   Categories 7 and 8 deal with the After-the-Fact Resource Allocation and have been  
20 discussed in the above testimony. The remaining categories deal with existing generating  
21 resources (category 1 and 2) and demand charges for off-system sales/purchases  
22 (categories 3,4,5 and 6).

23                   In addition Article VII of the JDA titled Assignment of Transmission  
24 Service Revenues outlines the method for assigning transmission service revenues.

25                   Under this methodology, existing firm transmission service agreements will remain with  
26 the party contracting for the service. Revenues from other transmission services such as

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1 Combined System Network and Point-to-Point Transmission Service would be  
2 distributed based on the following hierarchy:

- 3 1) Cost for any direct assignment facilities,
- 4 2) Incremental costs incurred to provide the transmission service,
- 5 3) The remaining revenue distributed based on each party's transmission  
6 plant investment.

7 The three service schedules that are attached to the JDA also deal with  
8 cost and cost allocation. Service Schedules A and B relate to System Energy Transfer  
9 and Off-System Sales Margin but do not appear to provide any additional clarifications  
10 that are not already in the JDA. Schedule C provides more definition to the costs  
11 associated with emissions allowances. Although the JDA simply includes emissions  
12 allowances in the list of items to be included in the incremental cost, Service Schedule C  
13 defines a method for calculating the value of emissions allowances and gives each party  
14 the option of buying or providing emissions allowances by December of each year.

15 Q. Would the JDA also be under FERC jurisdiction?

16 A. Yes. As Staff counsel has explained the FPA to me and based upon  
17 my own knowledge, the JDA, like the SSA, would result in the argument that there is  
18 some loss of jurisdiction for the Commission.

19 Q. Would the FERC regulatory process preserve the Commission's  
20 ability to challenge the allocation?

21 A. Staff counsel has advised me that the Commission's status at FERC is  
22 that of a party as a matter of right but that the Commission Staff has no recognized



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1 status. The Staff is concerned about the Commission's ability to address at the FERC  
2 level issues relating to the substantive JDA terms and the application of those terms by  
3 UE, CIPS and Ameren Services Company. The Staff is also concerned with the ability  
4 of the Commission, and the Staff in its audit function, to data and company personnel.

5 Q. Do you have concerns about the JDA regarding future changes to that  
6 document?

7 A. Yes. Article 13.02 has provisions for making changes which are  
8 similar to the provisions for making changes which appear in Article 10.2 in the SSA,  
9 which the Staff is also concerned about.

10 Q. Do you expect the JDA to significantly impact UE's integrated  
11 resource planning?

12 A. No. Although the JDA seeks to provide joint dispatching for a single  
13 control area made up of UE and CIPS service territories, it does not address joint  
14 planning between UE and CIPS. It is my understanding that Ameren Services will  
15 provide resource planning services to both UE and CIPS but UE's resource planning will  
16 still focus on UE's needs only.

17 Q. Would you provide a brief summary regarding the JDA?

18 A. Yes. The JDA is an agreement between UE and CIPS to operate as a  
19 single control area, to joint dispatch generation and to economically utilize power and  
20 energy in transactions with other entities. Much of this JDA is devoted to defining the  
21 principles by which the costs and benefits of existing generation will remain with the  
22 current owners, the cost and benefits of any new off-system sales/purchases will be

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1 allocated based on each party's contribution/use of that resource, and costs and benefits  
2 of transactions between UE, and CIPS will be related to the capacity or energy supplied.  
3 These cost principles are intended to ensure that neither party is harmed by the JDA.  
4 Through the JDA, UE expects significant savings in production costs over the next 10  
5 years.

6 Although Staff agrees with many of the principles that are contained in  
7 the JDA, Staff is concerned with the fact that these are only principles and ultimately do  
8 not guarantee prudence or fairness for UE's customers.

9 Q. Based on the concerns you have regarding the JDA, do you have any  
10 recommendations concerning the conditions which the Commission should require for  
11 approval of the JDA?

12 A. Yes, I do: These conditions are set out in Schedule 1 attached to my  
13 direct testimony which were developed with the assistance of Staff counsel. There are  
14 five conditions included on Schedule 1 that I have summarized below:

- 15 1) Access to all data, records, calculations and personnel that are  
16 associated with carrying out the terms of this JDA. This would  
17 include information and personnel from UE, CIPS, Ameren, and the  
18 Operating Committee.
- 19 2) Answers and appearances of personnel may be required by the  
20 Commission regarding the JDA and the tasks associated with carrying  
21 out the JDA.
- 22 3) All future changes in the JDA would be approved by the Commission.
- 23 4) The Commission will be allowed to determine prudence and allocation  
24 issues related to the JDA in rate proceedings involving UE.  
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5) The data and calculations associated with the hour by hour After-the-Fact Resource Allocation will be archived in an electronic format and submitted to Staff annually.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the matter of the Application of Union Electric Company )  
 for an order authorizing: (1) certain merger transactions )  
 involving Union Electric Company; (2) the transfer of )  
 certain assets, real estate, leased property, easements and ) CASE NO. EM-96-149  
 contractual agreements to Central Illinois Public Service )  
 Company; and (3) in connection therewith, certain other )  
 related transactions. )

AFFIDAVIT OF DANIEL I. BECK

STATE OF MISSOURI )  
 ) ss  
 COUNTY OF COLE )

Daniel I. Beck, of lawful age, on his oath states: that he has participated in the preparation of the foregoing written testimony in question and answer form, consisting of 26 pages of testimony to be presented in the above case, that the answers in the attached written testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

Daniel I. Beck  
 Daniel I. Beck

Subscribed and sworn to before me this 6<sup>th</sup> day of May, 1996.

Joyce C. Neuner  
 Notary Public

My commission expires \_\_\_\_\_  
 JOYCE C NEUNER  
 NOTARY PUBLIC STATE OF MISSOURI  
 OSAGE COUNTY  
 MY COMMISSION EXP JUNE 18,1997

1. Acknowledgment and agreement that the Commission may access and require without subpoena the production of all accounts, books, contracts, records, documents, memoranda, papers, officers and employees of Ameren Corporation and any affiliate or subsidiary of Ameren Corporation.
2. Acknowledgment and agreement that the Commission may require answers and/or the appearance of officers or employees of Ameren Corporation and any affiliate or subsidiary of Ameren Corporation without subpoena to provide answers to questions upon which the Commission may need information respecting Ameren Corporation and any affiliate or subsidiary of Ameren Corporation.
3. Article 13.02 of the JDA and Article 10.2 of the SSA must be changed to include the following:

UE and Ameren Corporation agree to provide a copy of any proposed change, amendment, modification or supplement to the Missouri Public Service Commission for approval. UE and Ameren Corporation will not seek to overturn, reverse, set aside, change or enjoin, whether through appeal or the initiation or maintenance of any action in any forum, a decision or order of the Missouri Public Service Commission which pertains to any proposed change, amendment, modification or supplement, on the basis that such change, amendment, modification or supplement has itself been filed with or approved by the FERC.
4. All wholesale electric energy or transmission service contracts, agreements, or arrangements of any kind, including the Joint Dispatch Agreement, respecting Union Electric Company (UE) and any Ameren Corporation subsidiary or affiliate required to be filed with and/or approved by the Federal Energy Regulatory Commission (FERC) shall contain and be conditioned upon the following without modification or alteration: UE and Ameren Corporation will not seek to overturn, reverse, set aside, change or enjoin, whether through appeal or the initiation or maintenance of any action in any forum, a decision or order of the Missouri Public Service Commission which pertains to recovery, disallowance, deferral, or ratemaking treatment of any expense, charge, cost, or allocation incurred or accrued by UE in or as a result of a wholesale electric energy or transmission service contract, agreement, arrangement, or transaction, on the basis that such expense, charge, cost, or allocation has itself been filed with or approved by the FERC, or was incurred pursuant to a contract, arrangement, agreement, or allocation method which was filed with or approved by the FERC. Failure to include the above language in any such contract, agreement, or arrangement shall render the same voidable at the sole discretion of the MoPSC. Should the above language be altered or invalidated by any Court or government agency, such contract, agreement, or arrangement shall be voidable at the sole discretion of MoPSC.
5. The data and calculations associated with the hour by hour After-the-Fact Resource Allocation will be archived in an electronic format and submitted to Staff annually.