

**Exhibit No.:**  
**Issues:** Joint Dispatch Agreement/ System  
Support Agreement/Open Access  
Tariffs/Gas Operations  
**Witness:** Maureen A. Borkowski  
**Type of Exhibit:** Direct Testimony  
**Sponsoring Party:** Union Electric Co.  
**Case No.:**

**MISSOURI PUBLIC SERVICE COMMISSION**

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

**DIRECT TESTIMONY**  
**OF**  
**MAUREEN A. BORKOWSKI**

**FILED**  
**NOV 7 - 1995**  
**MISSOURI**  
**PUBLIC SERVICE COMMISSION**

**St. Louis, Missouri**  
**November 2, 1995**

MISSOURI PUBLIC SERVICE COMMISSION

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 Contractual Agreements to )
Central Illinois Public Service )
Company; and (3) in connection )
therewith, certain other related )
transactions. )

Case No. \_\_\_\_\_

AFFIDAVIT OF MAUREEN A. BORKOWSKI

State of Missouri )
) SS.
City of St. Louis )

Maureen A. Borkowski, being first duly sworn on her oath, states:

- 1. My name is Maureen A. Borkowski. I work in the City of St. Louis, Missouri, and I am Manager of Energy Services in the Corporate Planning Function of Union Electric Company.
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony consisting of pages 1 through 21, inclusive, all of which testimony 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.

Maureen A. Borkowski
Maureen A. Borkowski

Subscribed and sworn to before me this 2nd day of November 1995.

BARBARA LUNGWITZ
Notary Public — Notary Seal
STATE OF MISSOURI
City of St. Louis
My Commission Expires September 24, 1999

Barbara Lungwitz
Notary Public

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**DIRECT TESTIMONY**  
**OF**  
**MAUREEN A. BORKOWSKI**  
**MISSOURI PUBLIC SERVICE COMMISSION**

**Q. Please state your name and your business address.**

A. My name is Maureen A. Borkowski and my business address is 1901 Chouteau, St. Louis, Mo. 63103.

**Q. By whom are you employed and in what position?**

A. I am employed by Union Electric Company (UE) as Manager of Energy Services in the Corporate Planning function.

**Q. Please describe your educational background and work experience.**

A. I received a Bachelor of Science Degree in Mechanical Engineering from the University of Notre Dame, Notre Dame, Indiana, in 1979. In 1981, I joined Union Electric Company and, in 1985, was promoted to Supervising Engineer, Corporate Planning, with responsibility for forecasting and load analysis activities. In 1988, I was promoted to Senior Supervising Engineer, Corporate Planning, with responsibility for demand-side planning activities. In 1989, I was promoted to Manager, Energy Supply Services in the Energy Supply function with responsibility for interconnection arrangements, long-term interchange power marketing, and the preparation of the Company's fuel budget. In 1993, I transferred to Corporate Planning and in May, 1994, I assumed my present position.

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1           **Q.     What are your responsibilities as Manager of Energy Services?**

2           A.     I am responsible for interconnection arrangements, long-term interchange  
3 power marketing, transmission service arrangements, emissions allowance trading and  
4 natural gas supply and planning.

5

6

**Purpose**

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

8           A.     I will address the effect of the Merger between UE and CIPSCO, parent  
9 company of Central Illinois Public Service Company (CIPS), on several aspects of the  
10 electrical operations of these companies. In particular, I will describe the Joint Dispatch  
11 Agreement, the System Support Agreement related to the transfer of UE's Illinois  
12 properties to CIPS, the open access tariff filing, and the benefits resulting from these  
13 actions.

14           I will also describe the gas operations of UE and CIPS, and address the benefits  
15 to be gained from the Merger for the gas business.

16           **Q.     Are you familiar with CIPS' electric and gas operations with respect  
17 to interconnection arrangements, interchange power marketing, transmission  
18 service arrangements, and natural gas supply and planning?**

19           A.     I have been generally familiar with these areas of activities at CIPS since I  
20 assumed my present position. I have become more familiar with such operations as a  
21 result of this Merger process.

**Electric Operations**

**Generating Resources & Transmission Systems Description**

1  
2  
3 **Q. Please describe UE's and CIPS' installed electric generating**  
4 **capacity.**

5 A. Schedule 1 lists UE's generating units by unit type, summer and winter  
6 capability, and primary fuel type. Schedule 2 lists the CIPS generating units in the same  
7 format. These generating units have a total installed capability in the summer of 7825  
8 MW for UE and 2834 MW for CIPS for a combined system total of 10,659 MW.

9 **Q. Please describe the transmission systems of UE and CIPS.**

10 A. UE's transmission system consists of a 345,000 volt backbone with a  
11 138,000 volt network, predominantly in the St. Louis metro area, and a 161,000 volt  
12 network in the out-state area. The system has approximately 899 miles of 345,000 volt  
13 lines, 90 miles of 230,000 volt lines, 707 miles of 161,000 volt lines, 1,407 miles of  
14 138,000 volt lines, and 144 miles of 110,000 volt lines. CIPS' transmission system is  
15 generally located in the southern two-thirds of the State of Illinois. The system has  
16 approximately 290 miles of 345,000 volt lines, 48 miles of 230,000 volt lines, 58 miles of  
17 161,000 volt lines, and 1,472 miles of 138,000 volt lines.

18 **Q. Describe the interconnections between CIPS and UE.**

19 A. CIPS and UE are currently interconnected at nine tie points, four of  
20 which have two-way transfer capability. The interconnections are listed on Schedule 3.  
21 The interconnections with two-way transfer capability have a maximum total installed  
22 capability of 791 MW. With the transfer of the UE Illinois retail electric properties to  
23 CIPS, the companies will have an additional amount of tie capability, in excess of 1,000  
24 MW, which is for power delivery from UE to CIPS.

1           **Q. Do you anticipate any transmission constraints resulting from the**  
2 **Merger?**

3           A. No, I do not. As I will discuss below, CIPS and UE intend to jointly  
4 dispatch their generating resources. UE and CIPS have considered the transfers  
5 resulting from joint dispatch and have concluded that the Merger will not create  
6 constraints on the interconnected system.

7

8

**Joint Dispatch**

9           **Q. Have UE and CIPS entered into an agreement regarding the joint**  
10 **dispatch of their generating facilities?**

11          A. Yes. A copy of the Joint Dispatch Agreement is attached to my  
12 testimony and marked as Schedule 4. This agreement will be filed shortly with the  
13 Federal Energy Regulatory Commission (FERC), and is subject to approval by that  
14 agency.

15          **Q. Why did UE and CIPS enter into a Joint Dispatch Agreement?**

16          A. Our analysis demonstrated that there are significant savings to be  
17 obtained by jointly dispatching UE's and CIPS' generation on a single system basis.

18          **Q. Please describe how the savings estimate was developed.**

19          A. The EPRI MIDAS computer model was used to estimate the savings  
20 possible from joint dispatch. In simple terms, three computer simulations were  
21 performed. The first two simulations assumed that the UE and CIPS generation systems  
22 would be operated as stand alone systems. The third simulation assumed that the  
23 combined generation resources of the two systems would be operated as one system.  
24 Annual energy costs for the three simulations were collected. The two stand alone  
25 system simulation results were added together and compared to the results for the

1 combined system operation simulation. The difference in the two results was identified  
2 as the potential savings from joint dispatch.

3 **Q. Over what period was the savings estimated?**

4 A. The analysis assumed that the savings from joint dispatch would not begin  
5 until 1997. Savings were summarized for the first ten years from that date.

6 **Q. What was the estimated savings identified from that MIDAS  
7 computer simulation work?**

8 A. We identified \$74 million in savings through reduced energy costs on the  
9 UE and CIPS systems. This figure was arrived at by adding the annual savings over the  
10 ten year period, 1997-2006.

11 **Q. What are the total estimated electric production savings which  
12 should result from this Merger?**

13 A. We have identified a total savings of \$84.1 million.

14 **Q. Please explain the difference between the \$84.1 million total and the  
15 \$74 million discussed above.**

16 A. The MIDAS work only estimated the savings in energy costs from joint  
17 dispatch savings. The two companies estimated that there would be an additional  
18 \$10.1 million in operational savings from coordinating plant maintenance schedules over  
19 the period, 1997-2006.

20 **Q. How does UE currently dispatch its generation?**

21 A. UE currently operates as a single control area. A control area is defined  
22 by the North American Electric Reliability Council as an electric system bounded by  
23 interconnection (tie line) metering and telemetry, which regulates its generation directly  
24 to maintain its interchange schedule with other control areas and contributes to  
25 frequency regulation of the interconnected system. Every control area is responsible for

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1 having, on an hourly basis, sufficient generation and/or purchases to supply all the  
2 expected load of its customers, plus enough operating reserve to provide for loss of  
3 generation or unexpected load increases. To accomplish this general requirement, a  
4 number of activities are performed each day by the system operators. Initially, the status  
5 of existing generating units, transmission lines, and other operating considerations are  
6 updated, taking into account maintenance schedules and any known generating outages  
7 or limitations. An hourly load forecast for requirements customers is then prepared  
8 based on the latest information, including the most current weather forecasts. The  
9 system operators contact all neighboring utilities about price and availability of power  
10 and energy for the next day. Schedules of hourly power deliveries for the next day from  
11 existing sales are received from interchange customers and entered into the computer.  
12 Unit commitment computer runs are then made to determine the most economical mix of  
13 generating units and power purchases needed to meet the load and reserve requirements  
14 and the interchange commitments previously described. Based upon these results,  
15 arrangements will be completed with neighboring utilities for interchange purchases and  
16 sales, and the power plants will be notified as to when and what generating units will be  
17 required to be on line the following day.

18 The next day, when this plan is being implemented in real time, output data from  
19 generators and actual flows on all interchange transmission ties with other companies are  
20 telemetered back to the system control center's Energy Management System. Every few  
21 seconds generation loading levels are recalculated and electronic signals are sent to each  
22 generating unit to raise or lower the output to the desired operating level to match load  
23 requirements. The Automatic Generation Control model in the Energy Management  
24 System utilizes heat rate data, fuel costs and other variable costs to determine the most  
25 economic loading for the system generating resources for that instant considering the



1 instantaneous load requirements. Additional purchases or sales of capacity and energy  
2 may be made by the system operator to further reduce system costs or maintain reliable  
3 operation.

4 **Q. Is this true for CIPS also?**

5 A. Yes.

6 **Q. Please generally describe how UE and CIPS would dispatch their**  
7 **generation under the Joint Dispatch Agreement.**

8 A. Currently, UE and CIPS operate their own individual control areas. After  
9 the Merger, the systems will be operated as a single control area, with economic  
10 commitment and dispatch of the combined system's generating resources and purchased  
11 power resources to serve the combined system's load requirements and sales obligations.  
12 The control area will interface directly with 28 other utilities (listed in Schedule 5) to  
13 economically buy and sell capacity and energy, using the generation and transmission  
14 resources of the combined system.

15 The operation of a single control area will ensure that the companies will capture  
16 the maximum economic benefit of joint dispatch and the efficiency that joint operation  
17 provides. The generating units will be dispatched without regard to which company  
18 owns the units, but rather, on the basis of which unit or competitive purchase option,  
19 offers the lowest incremental cost for the next increment of load. Each company will,  
20 therefore, have lower energy costs through joint dispatch, than they would have  
21 operating separately.

22 **Q. Why are these efficiencies not captured today?**

23 A. Today, each company performs its own unit commitment and economic  
24 dispatch to meet its own load requirements and reserve obligations. Energy transfers  
25 between the companies, either from their owned generating resources or purchased

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1 power, are sold at a margin, typically at least ten percent over the cost of the energy.  
2 Joint dispatch will enable unit commitment to be performed for the combined system and  
3 will eliminate the margin for energy transfers between the companies, resulting in more  
4 efficient operation.

5 **Q. How will the costs associated with joint dispatch be assigned**  
6 **between UE and CIPS?**

7 A. Under the agreement, each company will remain responsible for the fixed  
8 costs of its own generating units. An after the fact analysis will be performed to assign  
9 the energy and costs related to joint dispatch operations. Each company will receive its  
10 own lowest cost generation to serve its own load requirements. Variable costs  
11 associated with generating units which are operated out of the normal economic dispatch  
12 order, due to operating constraints, will be allocated to the owning company, unless  
13 specifically attributed to the load requirements or operating constraints on the other  
14 company's system. The after the fact analysis will determine what generation was  
15 required from one company to serve the other's load requirements. The additional  
16 incremental costs of this generation will be billed to the receiving company.

17 Energy available from existing purchases will be assigned to the company who  
18 contracted for the purchase, if it is economical. Otherwise, purchased energy costs will  
19 be assigned based on whose load was served by the purchase. Energy purchases which  
20 are economic for both companies will be shared on a load ratio basis. Demand charges  
21 for purchases agreed to before the Merger will stay with the contracting party. Demand  
22 charges for purchases agreed to after the Merger will be assigned on a load ratio basis.

23 **Q. How will interchange sales revenues be assigned?**

24 A. Based on the after-the-fact calculations, the incremental costs of  
25 generating the energy to provide the sales will be credited to the company who supplied

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1 the energy for the sale. Demand charge revenues for sales agreed to before the Merger  
2 will be assigned to the contracting company. Demand charge revenues for sales agreed  
3 to after the Merger will be allocated based upon a ratio of surplus reserves. Net energy  
4 revenues will be allocated based on a monthly ratio of net outputs.

5 **Q. What overall effect should the assignment of costs under the Joint**  
6 **Dispatch Agreement have on UE and CIPS?**

7 A. The net result will be lower costs for both companies as a result of the  
8 shared economies of joint dispatch and the benefits gained from performing interchange  
9 transactions from one control area rather than two.

10 **Q. How will UE's existing Illinois customers be considered in this cost**  
11 **allocation?**

12 A. These customers, which will be transferred to CIPS, will become a part of  
13 CIPS' native load. For purposes of the After-the-Fact Resource Allocation in the Joint  
14 Dispatch Agreement, however, that portion of their needs supplied pursuant to the  
15 System Support Agreement, which I will discuss later in my testimony, will be treated as  
16 UE's load requirement. Any load in excess of that supplied under the System Support  
17 Agreement will be treated as CIPS' load requirement.

18 **Q. How will joint dispatch affect the interchange purchases and sales**  
19 **activities of UE and CIPS?**

20 A. The operation as a single control area will enable the combined system to  
21 transact directly with the 28 entities identified in Schedule 5. This will allow the  
22 combined system to make efficient use of purchased power resources and interchange  
23 marketing opportunities throughout the Midwest area -- from Minnesota to Louisiana,  
24 from Kansas and Oklahoma to Ohio. The result will be reduced costs for both UE's and  
25 CIPS' customers.

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1           In addition, the combined system will make available a single transmission tariff,  
2           which I will describe later, to transmit power from any point to any point on the  
3           combined system. This will eliminate any "pancaking" which would have occurred prior  
4           to the Merger to transmit power across the UE and CIPS system. The Merger will thus  
5           benefit not only the interchange purchase and sale activity of UE and CIPS but will also  
6           benefit other utilities and power marketers operating in the Midwest who wish to  
7           transmit power across the combined system.

8           **Q. Will the Joint Dispatch Agreement have any adverse impact on how**  
9           **UE and CIPS comply with the Clean Air Act Amendments?**

10          A. No. Both companies have in place effective plans to comply with the  
11          Clean Air Act Amendments. The Merger will not negatively affect either company's  
12          ability to comply. The Joint Dispatch Agreement specifies that each company will  
13          continue to be responsible for compliance of its generating units and will maintain and  
14          account for each unit's emissions allowance allocation. The pricing parameters in the  
15          joint dispatch models will include the incremental cost of emissions allowances, such that  
16          each company will be compensated for any use of emissions allowances from generation  
17          used to serve the other's load.

18          **Q. What coordination arrangements do the companies currently have?**

19          A. UE and CIPS, along with Illinois Power, are members of the Ill-Mo Pool.  
20          In addition, both companies are members of MAIN, the Mid-America Interconnected  
21          Network, Inc., which is one of the nine regional reliability councils of NERC, the North  
22          American Electric Reliability Council. Membership in these groups involves the  
23          coordination of long-range planning and day-to-day operations to maintain reliable  
24          service. In addition, the companies are parties to various interchange agreements which  
25          allow them to transact directly with the entities listed in Schedule 5.

1           **Q.    How will this Merger, in general, and joint dispatch, in particular,**  
2 **affect the reliability of the region?**

3           A.    There should be no change since both companies have been complying  
4 with the same planning and operating guidelines established in MAIN and NERC, and  
5 both companies will continue to comply with such guidelines, individually or through  
6 their single control area, as appropriate.

7           **Q.    Do you expect joint dispatch to affect the interchange transfer**  
8 **capability available to UE and CIPS and to others wishing to use the combined**  
9 **transmission system?**

10          A.    No.   The expected levels of internal transfers associated with joint  
11 dispatch should not materially change the transfer capability that would exist if there  
12 were no joint dispatch. Load growth and regional power transactions will continue to be  
13 the dominant factors affecting interchange transfer capability. As a result, other parties  
14 desiring access to the combined system under the new open access tariff should not be  
15 negatively impacted by joint dispatch. In fact, they will benefit from the use of the  
16 combined system since they will have only one transmission rate to pay, instead of two.

17          **Q.    How will the Merger affect the capacity planning and procurement**  
18 **for each company?**

19          A.    The capacity planning process is presently being considered in the  
20 Merger transition teams. Generally, we expect the companies to coordinate capacity  
21 planning. Each company will still plan and maintain adequate and reliable generating  
22 resources to meet established reserve requirements for its individual load responsibilities.

**System Support Agreement**

1  
2           **Q. Mr. Gary L. Rainwater testified that UE's Illinois retail properties**  
3 **will be transferred to CIPS as a part of the Merger and that an accompanying**  
4 **System Support Agreement will be used to recover from CIPS the same amount of**  
5 **UE's power pool costs as are currently recovered from Illinois electric retail**  
6 **customers. Is that correct?**

7           A. Yes.

8           **Q. Please describe the System Support Agreement.**

9           A. Both UE and CIPS agreed to enter into a System Support Agreement for  
10 the provision of capacity and energy related to the transferred area and the recovery of  
11 all power pool cost currently assigned to the UE Illinois retail jurisdiction. The  
12 agreement was premised on certain principles which were intended to avoid any  
13 additional cost burden for UE's Missouri jurisdiction, while maintaining the low cost  
14 structure now in place for the current UE Illinois customers and minimizing the need to  
15 advance the plans for adding supply-side resources by CIPS. The agreement, which is  
16 attached as Schedule 6, provides for the sale of both firm and interruptible capacity and  
17 energy to CIPS for a 30-year period. The contract amounts of capacity and energy are  
18 patterned after the historical monthly usage of the UE Illinois firm and interruptible retail  
19 customers. The rates for service are designed to recover all fixed and variable costs  
20 related to power pool costs. This is accomplished through the use of a formula rate  
21 which tracks actual UE system costs for both the demand and energy charges. The costs  
22 in the formulas would be updated annually, with the rates applied to the contract  
23 capacity and energy values listed in the agreement. The agreement will be filed with and  
24 is subject to acceptance by the FERC.

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1           **Q.    How will load growth in the transferred territory be met?**

2           A.    CIPS will be responsible for providing resources for capacity and energy  
3 in excess of those provided by the System Support Agreement, which are based on  
4 historical load levels.

5           **Q.    How will the System Support Agreement function in conjunction**  
6 **with the Joint Dispatch Agreement?**

7           A.    The formula energy rate of the System Support Agreement provides for  
8 the allocation of the average variable costs from the UE system to CIPS, based on the  
9 energy delivered, up to the maximum energy amount specified in the agreement for the  
10 transferred area. In the after-the-fact analysis described in the Joint Dispatch Agreement,  
11 the energy delivered pursuant to the System Support Agreement will be identified so that  
12 it can be priced separately pursuant to the formula rate in the System Support  
13 Agreement. Any remaining energy which the after-the-fact analysis identifies as energy  
14 delivered from UE to CIPS will be handled as a System Energy Transfer under the Joint  
15 Dispatch Agreement.

16           **Q.    How do you expect the System Support Agreement to impact UE's**  
17 **Missouri electric customers?**

18           A.    The Agreement has been structured to recover all power pool costs  
19 currently assigned to UE's Illinois retail jurisdiction from CIPS and should therefore not  
20 impact UE's Missouri customers.

**Transmission Tariff Filing**

1  
2           **Q. As a part of the Merger, will UE and CIPS file open-access**  
3 **transmission tariffs?**

4           A. Yes. UE and CIPS will file wholesale open-access transmission tariffs for  
5 the combined system with FERC coincident with the Merger approval application,  
6 offering service comparable to that used by UE and CIPS. Specifically, UE and CIPS  
7 will offer both Point-to-Point service and Network service in a manner consistent with  
8 the Pro Forma tariffs attached to FERC's recent Notice of Proposed Rulemaking  
9 (NOPR) on Open Access (Docket No. RM95-8-000). These tariffs will provide for  
10 transmission services into, out of, across, and within the combined system to eligible  
11 parties on a non-discriminatory basis.

12           **Q. What effect will this open access tariff have on the companies and on**  
13 **the region?**

14           A. The tariffs will significantly enhance the purchase and sales opportunities  
15 for utilities which are currently interconnected to UE or CIPS and for other utilities and  
16 power marketers operating in the region. Today, transactions across the two systems  
17 would require two separate charges or adders to be paid: one to UE and one to CIPS.  
18 The combined system tariff will provide service at a single combined rate which should  
19 further encourage efficient interchange purchase and sale activity by increasing access to  
20 economical generation resources.

21           **Q. How will the revenues from the transmission tariff be shared**  
22 **between UE and CIPS?**

23           A. As described in the Joint Dispatch Agreement, the companies will initially  
24 be compensated for any costs of direct assignment or distribution facilities included in  
25 the transmission service revenues. They will then be reimbursed for any incremental



1 expenses incurred to provide the transmission service. Any remaining revenue will be  
2 shared in proportion to each company's Transmission Plant investment included in the  
3 tariff rates.

4  
5 **Gas Operations**

6 **Q. Please give a brief description of UE's natural gas business.**

7 A. UE's gas utility system serves approximately 118,000 gas customers.  
8 About 18,000 of these customers are in Illinois, in the Alton area, and the remainder are  
9 in Missouri. UE's gas system consists of four distinct and separate non-interconnected  
10 distribution systems, each of which is served by a major interstate pipeline. In addition,  
11 two of these distribution systems are served by intrastate pipelines. The largest system is  
12 located in central and eastern Missouri and serves approximately 80,000 customers. It is  
13 connected to the interstate pipeline Panhandle Eastern Pipe Line Company (PEPL) and  
14 to the intrastate carrier Missouri Pipeline Company (MPC). Two systems are located in  
15 southeast Missouri and are served by the interstate pipelines Texas Eastern Transmission  
16 Corporation (TETCO) and Natural Gas Pipeline Company of America (NGPL). The  
17 TETCO-connected distribution system serves approximately 18,000 customers and the  
18 NGPL-connected system has approximately 2,000 customers. UE's remaining gas  
19 system is located in the Alton, Illinois area (Alton System) and is connected to the  
20 interstate pipeline Mississippi River Transmission Corporation (MRTC) and the  
21 intrastate pipeline Illini Carrier (IC). In addition to its gas distribution systems, UE also  
22 buys gas for two of its electric generating plants, the Meramec and Venice power plants.

23 **Q. How does Union Electric purchase gas for its distribution systems?**

24 A. UE purchases its gas supply from producers, gatherers and marketers on  
25 a competitive bid basis, and transports it on one or more of the pipelines mentioned

1 above. In addition, Union Electric has contracted for storage of gas with pipelines and  
2 third parties. UE does not have any on-system storage; however, UE has four propane-  
3 air peak-shaving plants, one of which is located in Illinois. UE's peak day firm load is  
4 approximately 190,000 MCF with an annual throughput of 16 BCF. A map of UE's gas  
5 utility system is attached as Schedule 7.

6 **Q. What is UE's philosophy for acquiring natural gas services to supply**  
7 **its gas utility system?**

8 A. UE's philosophy is to secure natural gas services at the lowest reasonable  
9 cost consistent with reliable service. Union Electric's natural gas acquisition policy is  
10 essentially a product of our utility obligation to serve. As a regulated public utility, UE  
11 is charged with the obligation of providing natural gas service to all present and future  
12 customers in our service areas; we are required to meet large changes in our customers'  
13 demand for gas without regard to cause; and we are charged with the duty of providing  
14 reliable service at reasonable cost.

15 **Q. How has UE put this philosophy into practice?**

16 A. UE competitively bids for gas supply and pipeline services, when a choice  
17 is available, to determine the least cost alternative consistent with security of supply. UE  
18 also actively participates in interstate pipeline rate and service proceedings at the FERC  
19 for the pipelines which directly affect UE's gas utility business.

20 **Q. How has UE used competitive bidding and other methods to increase**  
21 **supplier competition and lower its overall gas supply costs?**

22 A. In general, UE has maintained an extensive bid list of gas suppliers to  
23 assure broad coverage of the gas market with its requests for gas supply. Starting with  
24 its participation in the spot market in 1987, UE has sought the lowest cost supplies  
25 available in the market. With the advent of FERC Order No. 636 and the unbundling of

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1 interstate pipeline services, UE has sought to identify reliable suppliers of firm,  
2 competitively-priced gas to supply its distribution systems. Also with the Order 636  
3 unbundling, UE has begun to secure traditional pipeline services such as storage from  
4 non-traditional third party suppliers on a competitive bid basis.

5 **Q. Please provide some background information about CIPS' gas**  
6 **business.**

7 A. CIPS serves approximately 166,000 gas customers in central and  
8 southern Illinois. CIPS' gas system is connected to six interstate pipelines: PEPL,  
9 Trunkline Gas Company (TRKL), TETCO, NGPL, Texas Gas Transmission Company  
10 and Midwestern Gas Transmission Company; and to two other Illinois gas utilities:  
11 Northern Illinois Gas Company and Central Illinois Light Company. CIPS has four  
12 active on-system storage fields and one propane-air facility. CIPS' peak day firm gas  
13 load is approximately 300,000 MCF with an annual throughput of approximately 36  
14 BCF. A map of CIPS' gas system is attached as Schedule 8.

15 **Q. Are CIPS' gas purchasing practices similar to UE's?**

16 A. Yes. It is my understanding that CIPS also utilizes competitive bidding to  
17 purchase its gas supply from producers, gatherers, and marketers.

18 **Q. Are CIPS' philosophy and practices similar to UE's?**

19 A. Yes. CIPS' philosophy is similar to UE's in that it focuses on providing  
20 reliable gas service at the lowest reasonable cost. In addition to its competitive supply  
21 acquisition practices, CIPS has also been able to take advantage of competition among  
22 various pipelines and storage providers for their services.

23 **Q. Will the combined companies continue these practices after the**  
24 **Merger is complete?**

1           A.     Yes. The combined gas properties of CIPS and UE will provide new  
2 opportunities to create and take advantage of competition.

3           **Q.     How will the gas business be structured after the Merger is**  
4 **complete?**

5           A.     All of the Illinois gas properties will be owned and operated by CIPS and  
6 all the Missouri gas properties will be owned and operated by UE. While the exact  
7 structure has yet to be determined through the transition process, in order to achieve the  
8 maximum benefits from the Merger, it is anticipated that all gas purchases, transportation  
9 and storage will be arranged on a centralized basis.

10          **Q.     How will the Alton System fit in with CIPS' existing gas system?**

11          A.     UE's Alton System is basically contiguous to the southern end of CIPS'  
12 Western Division gas system. The Alton System is served by two pipelines, MRTC and  
13 Illini Carrier. CIPS has significant transportation capacity on NGPL, which is the  
14 pipeline through which gas flows into IC. MRTC is also interconnected with TRKL,  
15 another pipeline on which CIPS holds significant capacity, and with NGPL. Thus, the  
16 Alton distribution system can easily be integrated into CIPS' existing gas supply and  
17 operations.

18          **Q.     Will any transportation, storage or supply contracts be transferred**  
19 **to CIPS with UE's Illinois gas distribution system?**

20          A.     Yes. Subject to obtaining any necessary consents, UE will transfer the  
21 MRTC, IC and NGPL transportation and storage contracts that UE has acquired to  
22 serve its Illinois gas customers that are in effect at the time of the Merger to CIPS. UE's  
23 current supply agreements expire prior to the expected Merger date, but any existing  
24 supply agreements at that time will be transferred to CIPS also.

1           **Q. Has UE used its Illinois storage, transportation or supply contracts**  
2 **to serve its Missouri customers in the past or have any of the contracts acquired to**  
3 **serve its Missouri customers been used to serve its Illinois customers?**

4           A. UE has used some of its gas supply contracts to provide gas to both its  
5 Missouri and Illinois customers. It has also used its MRTC transportation contract to  
6 move gas to its Meramec and Venice power plants.

7           **Q. After the Merger do the companies intend to continue this practice?**

8           A. Yes, they do.

9           **Q. Will the merged companies jointly dispatch their gas systems?**

10          A. The companies are currently evaluating joint dispatch of their gas  
11 systems. It is their intent to realize whatever economies are possible under current  
12 circumstances from joint dispatch and to increase the potential for such economies in  
13 future arrangements.

14          Most of CIPS' gas systems are currently integrated by way of physical  
15 interconnects and contractual arrangements. This part of CIPS' overall system comprises  
16 the areas that are served by PEPL, TRKL, TETCO and NGPL, and represents over 80%  
17 of the total peak day demand of CIPS' entire gas system. UE's gas systems which are  
18 served from the same pipelines that serve the combined part of CIPS' system can be  
19 integrated with CIPS' integrated systems, at least to a degree, for joint dispatch. In  
20 addition, UE's Alton gas system can be integrated into the integrated system as well  
21 because MRTC and IC are connected to NGPL and MRTC is connected to TRKL which  
22 serve the integrated area. The companies are considering acquisition of capacity  
23 contracts on the pipelines that serve the integrated systems which would allow deliveries  
24 to any point on the combined gas systems. Further, the companies may seek to have all  
25 the delivery points to the combined systems under these contracts treated as a central

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1 delivery point. This would increase flexibility to use the contracts with the lowest cost  
2 first regardless of where on the combined systems the gas is needed. The two companies  
3 are also currently evaluating their existing and other potential gas supply management  
4 systems.

5 From a personnel and organizational perspective, the key to joint dispatch of the  
6 combined gas systems is to have centralized gas supply and planning and central system  
7 control to procure, nominate and manage all gas supply, transportation, and storage  
8 contracts for the benefit of all the combined companies' gas customers. Through the  
9 merger transition team process, the two companies are evaluating the creation of one  
10 Gas Supply and Planning and one Gas System Control organization that will perform  
11 these functions.

12 **Q. What are the expected savings from combining the gas supply**  
13 **functions of CIPS and UE through the Merger?**

14 A. The companies estimate that, in the first ten years after the Merger,  
15 \$38.4 million of savings can be realized by combining the gas supply functions of the  
16 companies. The savings are expected to come from: reducing the amount of peak day  
17 capacity needed, reducing the amount of balancing services that are needed, using the  
18 increased competitive leverage of the combined companies to get better rates on the  
19 capacity they reserve, integrating the purchases of gas for the two gas systems on  
20 common pipelines, reducing the overall number of gas supply personnel, and reducing  
21 the need for outside professional services.

22 The companies estimate that they will be able to save \$16.3 million over the ten-  
23 year period by reducing the amount of peak day capacity needed. These savings are  
24 expected to occur due to diversity in load and weather, and reductions in necessary  
25 reserve margins due to a larger and more diverse supply portfolio. The estimated

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1 savings from reducing the need for balancing services is calculated to be \$13.2 million,  
2 also due primarily to diversity. The companies estimate that the savings from use of the  
3 increased competitive leverage of the combined companies will be \$7.3 million over the  
4 ten-year period with savings initially small, but expected to grow as existing contracts  
5 expire. Integration of gas purchases for the two gas systems is estimated to save  
6 \$250,000. The savings from reducing the number of gas supply personnel by two  
7 persons from the current fifteen is estimated to be \$1.2 million over the ten-year period.  
8 The savings from reducing the use of outside professional services (primarily due to  
9 outside legal expenses for FERC pipeline proceedings) is estimated to be \$73,000 over  
10 the ten-year period. The total expected gas supply savings from the Merger is estimated  
11 to be \$38.4 million for the ten-year period, which the companies believe is reasonable.

12 **Q. Will UE's Missouri natural gas customers be impacted by the**  
13 **Merger in any way?**

14 **A. Yes.** The Missouri natural gas customers will share in the savings due to  
15 the combined system supply planning and operation.

16 **Q. Will achieving these savings in any way adversely affect service to**  
17 **the companies' gas customers?**

18 **A. No.** The savings to be gained from the Merger are expected to come  
19 from more efficient combined operations, not a reduction in service. Customers should  
20 receive the same high quality of service received prior to the Merger at a lesser cost.

21

22

**Conclusions**

23 **Q. Does this conclude your direct testimony?**

24 **A. Yes, it does.**

**List of Schedules**

- 1. UE Generating Capability**
- 2. CIPS Generating Capability**
- 3. UE-CIPS Tie Capability**
- 4. Joint Dispatch Agreement**
- 5. Direct Trading Partners**
- 6. System Support Agreement**
- 7. UE Gas System Map**
- 8. CIPS Gas System Map**



# GENERATING CAPABILITY

## *Union Electric Company*

| Station Name & Unit No.   | Unit Type           | Net Capability - MW |             | Fuel Type |
|---------------------------|---------------------|---------------------|-------------|-----------|
|                           |                     | Summer              | Winter      |           |
| Callaway                  | Nuclear             | 1125                | 1177        | Uranium   |
| Canton Diesels (5 units)  | Internal Combustion | 4                   | 4           | Oil       |
| Fairgrounds Comb. Turbine | Combustion Turbine  | 55                  | 64          | Oil       |
| Howard Bend Comb. Turbine | Jet Engine          | 43                  | 48          | Oil       |
| Keokuk (15 units)         | Hydro               | 119                 | 122         | Water     |
| Kirksville Comb. Turbine  | Combustion Turbine  | 13                  | 15          | Gas       |
| Labadie 1                 | Steam               | 559                 | 561         | Coal      |
| Labadie 2                 | Steam               | 559                 | 561         | Coal      |
| Labadie 3                 | Steam               | 559                 | 561         | Coal      |
| Labadie 4                 | Steam               | 559                 | 561         | Coal      |
| Meramec 1                 | Steam               | 131                 | 134         | Coal/Gas  |
| Meramec 2                 | Steam               | 131                 | 134         | Coal/Gas  |
| Meramec 3                 | Steam               | 280                 | 282         | Coal/Gas  |
| Meramec 4                 | Steam               | 338                 | 347         | Coal      |
| Meramec Comb. Turbine     | Combustion Turbine  | 55                  | 64          | Oil       |
| Mexico Comb. Turbine      | Combustion Turbine  | 55                  | 64          | Oil       |
| Moberly Comb. Turbine     | Combustion Turbine  | 55                  | 64          | Oil       |
| Moreau Comb. Turbine      | Combustion Turbine  | 55                  | 64          | Oil       |
| Osage (8 units)           | Hydro               | 212                 | 205         | Water     |
| Portable Diesel           | Internal Combustion | 1                   | 1           | Oil       |
| Rush Island 1             | Steam               | 581                 | 583         | Coal      |
| Rush Island 2             | Steam               | 581                 | 583         | Coal      |
| Sioux 1                   | Steam               | 463                 | 470         | Coal      |
| Sioux 2                   | Steam               | 463                 | 470         | Coal      |
| Taum Sauk (2 units)       | Pumped Storage      | 350                 | 275         | Water     |
| Venice (6 units)          | Steam               | 429                 | 439         | Gas/Oil   |
| Venice Comb. Turbine      | Combustion Turbine  | 25                  | 31          | Oil       |
| Viaduct Comb. Turbine     | Combustion Turbine  | 25                  | 31          | Gas       |
| <b>TOTAL</b>              |                     | <b>7825</b>         | <b>7915</b> |           |

## GENERATING CAPABILITY

### *Central Illinois Public Service Company*

| Station Name & Unit No. | Unit Type           | Net Capability - MW |             | Fuel Type |
|-------------------------|---------------------|---------------------|-------------|-----------|
|                         |                     | Summer              | Winter      |           |
| Coffeen 1               | Steam               | 325                 | 325         | Coal      |
| Coffeen 2               | Steam               | 550                 | 550         | Coal      |
| Grand Tower 3           | Steam               | 82                  | 82          | Coal      |
| Grand Tower 4           | Steam               | 104                 | 104         | Coal      |
| Hutsonville 3           | Steam               | 76                  | 77          | Coal      |
| Hutsonville 4           | Steam               | 77                  | 79          | Coal      |
| Hutsonville Diesel      | Internal Combustion | 3                   | 3           | Oil       |
| Meredosia 1             | Steam               | 62                  | 64          | Coal      |
| Meredosia 2             | Steam               | 62                  | 64          | Coal      |
| Meredosia 3             | Steam               | 215                 | 215         | Coal      |
| Meredosia 4             | Steam               | 168                 | 174         | Oil       |
| Newton 1                | Steam               | 555                 | 554         | Coal      |
| Newton 2                | Steam               | 555                 | 555         | Coal      |
| <b>TOTAL</b>            |                     | <b>2834</b>         | <b>2846</b> |           |

## UE-CIPS Tie Capability (Before Merger)

| Tie Point                                      | Facility                                     | Total Connected<br>Capability |
|--|--|-------------------------------|
| Combined Quincy<br>East Quincy<br>South Quincy | Bus Tie 138 kV<br>Bus Tie 138 kV             | 224*                          |
| Grand Tower                                    | Grand Tower-<br>Perryville 138 kV<br>(CT)    | 108                           |
| Palmyra  | Palmyra-N<br>Marblehead 161 kV<br>(Line)     | 248*                          |
| West Frankfort                                 | Cahokia-<br>W. Frankfort 230 kV<br>(PCB)     | 319*                          |
| Hamilton                                       | Hamilton-Tennessee<br>Junction 69 kV<br>(CT) | 36                            |
| Hamilton                                       | Hamilton<br>Appanoose-2 69 kV<br>(CT)        | 48                            |
| Hamilton                                       | Hamilton-Lee-1<br>69 kV<br>(Line)            | 68                            |
| Meppen   | Meppen 138-69 kV<br>Transformer<br>(CT)      | 48                            |

\* Two-way transfer capability