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Missouri Public Service Commission

### **MISSOURI PUBLIC SERVICE COMMISSION**

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فالمتاج فأراد وسيغو المتبولي

## UTILITY OPERATIONS DIVISION

## **REBUTTAL TESTIMONY**

### OF

## **MICHAEL S. PROCTOR**

UNION ELECTRIC COMPANY d/b/a AmerenUE

CASE NO. EO-2004-0108

Jefferson City, Missouri January, 2004

Exhibit No -0105 Case No(s). <u>►0-200</u> Rotr 🖄 Date 3-25-01

Section.

#### **BEFORE THE PUBLIC SERVICE COMMISSION**

#### **OF THE STATE OF MISSOURI**

In the matter of the Application of Union ) Electric Company (d/b/a AmerenUE) for an ) order authorizing the sale, transfer and ) assignment of certain Assets, Real Estate, ) Leased Property, Easements and Contractual ) Agreements to Central Illinois Public ) Service Company (d/b/a AmerenCIPS) and, ) in connection therewith, certain other related transactions.

Case No. EO-2004-0108

#### **AFFIDAVIT OF MICHAEL S. PROCTOR**

STATE OF MISSOURI	)
	) ss
COUNTY OF COLE	)

Michael S. Proctor, of lawful age, on his oath states: that he has participated in the preparation of the following written testimony in question and answer form, consisting of  $\underline{\mathscr{A}(\mathcal{I})}$  pages of written testimony to be presented in the above case, that the answers in the following 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.

Michael S Michael S. Proctor

Subscribed and sworn to before me this $29$ th day of January, 2004.	
Notary Participants and State Public Notary Public	2

1	TABLE OF CONTENTS
2	
3	PURPOSE OF REBUTTAL TESTIMONY
4	FINDINGS AND RECOMMENDATIONS
5	THE EXPECTED COSTS OF THE METRO EAST TRANSFER
6	THE EXPECTED COSTS FROM ADDING COMBUSTION TURBINE CAPACITY 10
7	METRO EAST TRANSFER AND THE JOINT DISPATCH AGREEMENT 14
8	METRO EAST TRANSFER AND TRANSMISSION SERVICE

1		<b>REBUTTAL TESTIMONY</b>
2		OF
3		MICHAEL S. PROCTOR
4		UNION ELECTRIC COMPANY
5		d/b/a AmerenUE
6		CASE NO. EO-2004-0108
7	Q.	What is your name and business address?
8	А.	My name is Michael S. Proctor. My business address is 1845 Borman
9	Court, Suite	101, St. Louis, MO 63146-4138.
10	Q.	By whom are you employed and in what capacity?
11	А.	I am employed by the Missouri Public Service Commission (Commission)
12	as Chief Reg	ulatory Economist in the Energy Department.
13	Q.	What is your education background and work experience?
14	А.	I have a Bachelor and Master of Arts Degrees in Economics from the
15	University of	f Missouri at Columbia, and a Ph.D. degree in Economics from Texas A&M
16	University. 1	Prior to coming to work for the Commission, I was an Assistant Professor of
17	Economics a	t Purdue University and at the University of Missouri at Columbia. Since
18	June 1, 1977	, I have been on the Staff of the Commission and have presented testimony
19	on various is	ssues related to weather normalized energy usage and rate design for both
20	electric and	natural gas utilities. With respect to electric issues, I have worked in the
21	areas of load	forecasting, resource planning and transmission pricing. In 1997 and 1998,
22	I served as t	the Staff Vice Chair of the Market Structure and Market Power Working
23	Group of the	Commission's Task Force on Retail Competition. From December of 2000

to August of 2001, I served as chairman of the Forward Congestion Markets Subgroup of
 the Southwest Power Pool's (SPP's) Congestion Management Systems Working Group.
 I am also serving as the chairman of the Organization of Midwest ISO States (OMS)
 working group on congestion management and financial transmission rights allocations.

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## Q. What are your current duties in the Energy Department as Chief Regulatory Economist?

A. I have the responsibility of being actively involved with the development
and structure of Regional Transmission Organizations (RTOs) for the purpose of
increasing efficiency and reliability in the competitive supply of electricity at wholesale.

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## Q. What is the purpose of your rebuttal testimony in this proceeding?

**PURPOSE OF REBUTTAL TESTIMONY** 

A. My rebuttal testimony will address the direct testimony of AmerenUE witness Mr. Richard A. Voytas. Mr. Voytas states that the purpose of his direct testimony is to "explain why transferring electric transmission and distribution properties of Union Electric Company d/b/a AmerenUE in the Metro East Service Area in Illinois ("Metro East Service Area" or "Metro East") to Central Illinois Public Service Company d/b/a AmerenCIPS is the least cost alternative available to supply AmerenUE's long-term capacity and energy needs." [Voytas Direct at p.1]

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## Q. What is your understanding of the property involved in the proposed Metro East transfer?

A. In Schedule 1, attached to AmerenUE's Application, is the Asset Transfer
Agreement. On page 1 of the Asset Transfer Agreement, it states that AmerenUE is
intending to transfer "electric transmission and distribution facilities and natural gas
distribution facilities located in the State of Illinois." On pages 2-4 of the Asset Transfer

1 Agreement (Section 1.1) is a list that identifies the assets that AmerenUE is proposing to 2 transfer to AmerenCIPS. What is critical to my rebuttal testimony is that, while 3 AmerenUE is transferring transmission and distribution assets as well as the obligation to 4 provide service from these assets to the Metro East retail customers, it is not proposing to transfer any of the generating assets or purchased power contracts that are currently used 5 6 to serve these same customers. Instead, the AmerenUE supply resources will remain 7 with AmerenUE and be paid for by, and economically dispatched to serve its remaining 8 Missouri retail and Wholesale customers.

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## Q. What is your understanding of the structure of the economic analysis presented by Mr. Voytas?

11 Α. Mr. Voytas presented analysis that compares the costs of AmerenUE 12 transferring the Metro East Service Area to AmerenCIPS to the alternative of keeping this service area and adding combustion turbine capacity to meet the capacity and energy 13 needs of the existing customer load. In the case of the Metro East transfer, the 14 15 AmerenUE generating capacity used to serve the transferred load would remain with 16 AmerenUE to serve its remaining customers, but if it did not transfer the Metro East 17 Service Area, AmerenUE would need to add additional capacity to serve its current load, 18 including the load in the Metro East Service Area. In previous resource planning studies, 19 AmerenUE has determined that without the transfer, the least-cost method for meeting 20 the reliability requirements for serving its existing load is to add combustion turbine 21 capacity.

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Q. What is your understanding of the results of the economic analysis presented by Mr. Voytas?

1 Α. The results of the comparison of the Metro East transfer to adding 2 combustion turbines are summarized in Schedule 4 attached to Mr. Voytas' direct testimony. On a present value basis, the estimated cost of the Metro East transfer is 3 4 \$418.4 million compared to an estimated cost of \$429.4 million for adding the 5 combustion turbine capacity needed to maintain the Metro East Service Area. This 6 difference of \$11 million in present value over a twenty-five year period is extremely 7 small. In other words, from a purely economic perspective, the expected costs of the two alternatives are almost identical. When expected costs are this close, it is very important 8 9 to take a critical look at the "depth" of the analysis, including the assumptions that went 10 into the calculations.

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### FINDINGS AND RECOMMENDATIONS

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#### Q. What were your findings regarding Mr. Voytas' analysis?

13 Α. With respect to the analysis regarding the costs of the Metro East transfer, 14 I found that Ameren Services performed a snapshot of what savings it expects to receive 15 from the transfer in the first year and extrapolated those savings over a twenty-five year 16 period. With respect to the case of maintaining the Metro East Service Area and adding 17 the combustion turbine capacity, I found Ameren Services performed arbitrary and 18 inconsistent calculations that, when corrected, could result in this alternative (combustion 19 turbines) having the least expected cost. In addition, Mr. Voytas' analysis failed to 20 include the Callaway nuclear plant decommissioning costs associated with the transfer. 21 When these costs are included, the Metro East transfer may no longer be the least-cost 22 option.

A significant contributor to this conclusion is that Ameren Services assumed in its
analysis the current form of the Joint Dispatch Agreement (JDA) would continue to

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1	determine the pricing of energy transfers between AmerenUE and Ameren Energy	
2	Generating (AEG, a non-regulated, exempt wholesale generator (EWG) subsidiary that	
3	serves the AmerenCIPS load), as well as the distribution of profits from off-system (spot	
4	market) sales. If the JDA were reformulated to price energy transfers at market price	
5	rather than at incremental cost and reflect a more equitable sharing of profits from off-	
6	system sales, the economics of the Metro East transfer would significantly increase.	
7	In addition, Mr. Voytas' analysis failed to include the differences in transmission	
8	costs from the Metro East transfer. Other Commission Staff (Staff) witnesses will	
9	present different cost related aspects of the Metro East transfer that AmerenUE failed to	
10	address in its application.	
11	Q. What is your recommendation concerning the Metro East transfer?	
12	A. The Staff cannot recommend that the Commission approve the Metro East	
12 13	A. The Staff cannot recommend that the Commission approve the Metro East transfer. The Staff's recommendation is based upon the information that AmerenUE has	
13	transfer. The Staff's recommendation is based upon the information that AmerenUE has	
13 14	transfer. The Staff's recommendation is based upon the information that AmerenUE has provided to support this application. AmerenUE has not adequately addressed all the	
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13 14 15 16	transfer. The Staff's recommendation is based upon the information that AmerenUE has provided to support this application. AmerenUE has not adequately addressed all the significant areas of the Metro East transfer as well as the impacts on its costs in the event that the proposed transaction is implemented. One of the areas inadequately addressed is	
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<ol> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> </ol>	transfer. The Staff's recommendation is based upon the information that AmerenUE has provided to support this application. AmerenUE has not adequately addressed all the significant areas of the Metro East transfer as well as the impacts on its costs in the event that the proposed transaction is implemented. One of the areas inadequately addressed is changes to the JDA. Specifically, the areas that need to be addressed by AmerenUE are: 1. Energy transfers between AmerenUE and AEG at market prices;	
<ol> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> </ol>	transfer. The Staff's recommendation is based upon the information that AmerenUE has provided to support this application. AmerenUE has not adequately addressed all the significant areas of the Metro East transfer as well as the impacts on its costs in the event that the proposed transaction is implemented. One of the areas inadequately addressed is changes to the JDA. Specifically, the areas that need to be addressed by AmerenUE are: 1. Energy transfers between AmerenUE and AEG at market prices; 2. Profits from off-system sales distributed to the entity	

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1		3. AmerenUE obtaining written assurance from Ameren that it
2		will be held harmless with respect to transmission service and
3	1 2 4	transmission charges on any of its generating plants that are
4	- - -	separated from its transmission system because of the Metro East
5		transfer; and
6		4. AmerenUE augmenting its direct filing to provide analysis of
7		the other areas and the related cost impacts not included in its
8	-	filings to date, which is discussed in the rebuttal testimony of other
9		Staff witnesses. In supplemental direct testimony, AmerenUE
10		must include the differences in transmission costs resulting from
11		the Metro East transfer in its analysis of the least cost alternative.
12		
12	THE EXPE	CTED COSTS OF THE METRO EAST TRANSFER
12	<u>THE EXPE</u> Q.	<u>CTED COSTS OF THE METRO EAST TRANSFER</u> What analysis was performed by Ameren Services to calculate the
	Q.	
13	Q.	What analysis was performed by Ameren Services to calculate the
13 14	Q. costs of the A.	What analysis was performed by Ameren Services to calculate the Metro East transfer?
13 14 15	Q. costs of the A. as the basis	What analysis was performed by Ameren Services to calculate the Metro East transfer? Ameren Services used a test year (12 month ending December 31, 2003)
13 14 15 16	Q. costs of the A. as the basis calculated th	What analysis was performed by Ameren Services to calculate the Metro East transfer? Ameren Services used a test year (12 month ending December 31, 2003) for its calculation of the costs of the Metro East transfer. Mr. Voytas
13 14 15 16 17	Q. costs of the A. as the basis calculated th in that year	What analysis was performed by Ameren Services to calculate the Metro East transfer? Ameren Services used a test year (12 month ending December 31, 2003) for its calculation of the costs of the Metro East transfer. Mr. Voytas te annual revenue requirements associated with the production costs incurred
13 14 15 16 17 18	Q. costs of the A. as the basis calculated th in that year these costs v	What analysis was performed by Ameren Services to calculate the Metro East transfer? Metro East transfer? Ameren Services used a test year (12 month ending December 31, 2003) for its calculation of the costs of the Metro East transfer. Mr. Voytas are annual revenue requirements associated with the production costs incurred to serve the load in the Metro East Service Area. The fixed component of
13 14 15 16 17 18 19	Q. costs of the A. as the basis calculated th in that year these costs w adjusted to r	What analysis was performed by Ameren Services to calculate the Metro East transfer? Ameren Services used a test year (12 month ending December 31, 2003) for its calculation of the costs of the Metro East transfer. Mr. Voytas are annual revenue requirements associated with the production costs incurred to serve the load in the Metro East Service Area. The fixed component of would remain with AmerenUE, but the variable component of these costs was
13 14 15 16 17 18 19 20	Q. costs of the A. as the basis calculated th in that year these costs w adjusted to r	What analysis was performed by Ameren Services to calculate the Metro East transfer? Ameren Services used a test year (12 month ending December 31, 2003) for its calculation of the costs of the Metro East transfer. Mr. Voytas are annual revenue requirements associated with the production costs incurred to serve the load in the Metro East Service Area. The fixed component of vould remain with AmerenUE, but the variable component of these costs was effect the savings AmerenUE would expect to receive from the transfer of the

expects to receive in variable production costs from the transfer of the Metro East
Service Area?

1	A. This analysis is summarized on Schedule 5 attached to Mr. Voytas' direct
2	testimony. Ameren Services ran its production cost model with and without the transfer
3	for a test year ending December 31, 2003. With the transfer, AmerenUE serves less load
4	each hour and this results in lower cost generation being available to serve the remaining
5	AmerenUE customers. For the 2003 test year, Mr. Voytas estimates the average cost of
6	serving the transferred load to be \$35.6 million, and estimates an additional \$25.0 million
7	in savings from lowering the cost of generation to serve the remaining AmerenUE load;
8	i.e., the incremental savings in variable production costs is estimated to be \$60.6 (\$35.6 +
9	\$25.0) million per year.

# Q. Should AmerenUE expect this level of incremental savings in generating costs from the transfer of the Metro East Service Area to continue into the future?

13 Α. No. This is a snapshot of savings from a historical test period (12 months ending December 31, 2003). However, in discussions with Mr. Voytas, it appears that, at 14 15 the time, this was the best estimate that Ameren Services could make of the incremental generating cost savings. This test period of 2003 is consistent with the additional cost 16 17 information used by Ameren Services in its analysis. In essence, Ameren Services did not use budget forecasts for any of the direct or indirect costs associated with the transfer. 18 Thus, the analysis performed by Ameren Services is basically a one-time snapshot of the 19 costs of the transfer. The one-time snapshot approach is not the preferred approach to 20 21 evaluate the economics of this aspect of the Metro East transfer.

Q. You have discussed the generating cost savings, but what makes up
the costs to the remaining AmerenUE customers from the transfer?

A. The remaining AmerenUE customers must pick up the fixed costs associated with the AmerenUE generating assets that would otherwise have been paid for in rates by the Metro East Service Area customers. This includes both the direct costs of these generating assets as well as indirect costs associated with these generating assets, such as the costs of general plant and administrative and general expenses. The details of these costs are reported on Schedules 2 and 3 attached to Mr. Voytas' direct testimony in the form of annual revenue requirements for the 2003 historical test year.

8 On Schedule 2, Mr. Voytas shows the accounting break down for both fixed and 9 variable costs including the portion of these costs that are currently allocated to the Metro 10 East Service Area customers. These allocated annual revenue requirements total \$114.8 11 million for the twelve months ending December 31, 2003 (i.e., for the 2003 historical test 12 year). On Schedule 3, these annual revenue requirements are reduced in subsequent 13 vears through depreciation. On Schedule 4, this same 25 year stream of revenue 14 requirements is shown in the first row, where the present value is \$1,007.3 million and as 15 a levelized annual cost (annuity) of \$103.8 million per year. The assumed annual savings 16 in generating costs of 60.6 (30.6 + 25.0) million per year is subtracted from these 17 annual revenue requirements to give a net levelized annual cost of \$43.2 million per year 18 to remaining AmerenUE customers. Again, this is an estimate based on a single test year 19 and does not represent a forecast of the costs over the 25-year period.

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#### Q. What does a levelized annual cost represent?

A. It is a way of expressing a stream of annual costs that vary in size from
year-to-year (in this case decreasing due to depreciation) as a stream of annual costs that

are equal in size each year, where both streams of varying and equal annual costs have
 the same present value.

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## Q. Is there a concern that Ameren Services' estimate is based on a single test year and does not represent a forecast of the costs over the 25-year period?

A. Yes, because a single test year estimate does not take into account the impact of load growth. The transfer of the Metro East Service Area results in greater base-load capacity available to either serve the remaining AmerenUE customers or sell into the wholesale spot market when it is not needed to serve that load. Ameren Services accounted for this in its test year estimate, but did not determine whether or not load growth would change this estimate over time.

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## Q. As a single test year estimate, do you have any concerns with the calculation of the cost of the transfer to remaining AmerenUE customers?

13 A. Yes, I have one additional concern related to the calculations of savings in 14 variable production costs. In meetings with Ameren Services, I asked if the combustion 15 turbines had been included in the calculation of the generating costs for the no transfer 16 case against which it made its calculation of savings in variable production costs. 17 Ameren Services' response was that since the combustion turbines were not needed for 18 the historical test period, they were not included in the calculation of generating costs for 19 the no transfer case. My understanding of this response is that had the combustion 20 turbine capacity been included for the test year, the results would virtually be the same; 21 i.e., because the combustion turbine capacity was not needed to serve load, the 22 combustion turbines would not have run to any appreciable extent. Had Ameren Services 23 made its calculations for multiple years that included load growth, then the combustion

turbines would have been needed, and in later years, would have had some effect on the
 calculation of generating costs and generating cost savings.

Q. Is the use of a snapshot rather than a forecast that includes load
growth your greatest concern with Ameren Services' analysis of the cost of the
transfer?

6 Α. No, it is not. A much larger concern is that Ameren Services assumed the 7 continued application of the current JDA in its analysis. The detrimental impact of the 8 continued application of the current form of the JDA is that AmerenUE customers 9 remaining after the transfer would not receive the full benefit of excess base-load 10 generation that would be available to sell into the wholesale spot market for electricity. 11 Under the current JDA, the excess base-load capacity gained from the transfer must be 12 used to serve the load that was transferred rather than be available for spot market sales. 13 Moreover, the excess base-load generation that would have otherwise been available to 14 sell into the wholesale spot market is committed to serve the AmerenCIPS load at 15 AmerenUE's incremental cost. I will discuss the implications of this in greater detail in a 16 later section of my rebuttal testimony.

## 17 THE EXPECTED COSTS FROM ADDING COMBUSTION TURBINE 18 CAPACITY

Q. What analysis was performed by Ameren Services to calculate the
expected costs of not making the Metro East transfer and adding combustion
turbine capacity?

A. This analysis is shown on Schedule 4 attached to Mr. Voytas' direct
testimony. Ameren Services included the capital and fixed costs at a present value of
\$441.7 million that includes both a return of, and on, the capital costs of adding 597

megawatts of combustion turbine capacity, as well as an annual fixed expense for 1 2 operating and maintaining these assets. For purposes of its economic comparison, 3 Ameren Services assumed that the additional combustion turbine capacity would be added at the same time as the Metro East transfer would have taken place in the 4 5 alternative. In addition to these costs, Ameren Services calculated profits from sales that 6 could be made from the additional generating capacity using what it calls a "mark to 7 market" analysis. After taking into account the JDA allocation of profit margin from off-8 system (spot market) sales, Ameren Services estimates the present value of profits from 9 these sales to AmerenUE customers to be \$12.3 million dollars. This is subtracted from 10 the capital and fixed costs, resulting in a net cost of \$429.4 million in present value 11 (\$45.5 million per year on a levelized annual cost basis). This is only slightly higher than the costs of the transfer at \$418.4 million in present value (\$43.1 million per year on a 12 13 levelized annual cost basis).

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## Q. What concerns did you have regarding the analysis of the costs of the combustion turbines?

A. First, the analysis assumed that without the Metro East transfer, the 597
megawatts of combustion turbine capacity would all be needed in the same year. This is
not the case. Moreover, based on forecasts of Ameren UE's load and capacity needs, the
combustion turbine capacity could be phased in over a three-year period. The exact
megawatts of additions in each year would depend on the size of the combustion turbines.

Second, the "mark to market" analysis assumes that at any time the spot-market
price of electricity is greater than the incremental cost of running the combustion
turbines, AmerenUE would run the combustion turbines. Instead of assuming that the

1 combustion turbines would simply run to sell into the spot-market, Ameren Services 2 assumed that the combustion turbines would only run 50% of the time to sell into the market. Thus, only half of the profits calculated as the difference between the spot-3 4 market price and the incremental cost of running the combustion turbines were included 5 as offsets to the capital and fixed costs of the combustion turbines. The reduction in 6 profits margins from off-system sales were made to address three issues: 1) transmission 7 constraints; 2) depth of market; and 3) using combustion turbine energy to serve native 8 load.

9 Q. What is the problem with including only 50% of possible spot-market
10 sales from the combustion turbines?

A. The problem with this assumed reduction in profit margins from offsystem sales is twofold: 1) inconsistency; and 2) arbitrariness.

First, as indicated in the previous section of my rebuttal testimony, in its calculation of savings from the transfer, Ameren Services never included the costs of running the combustion turbines to meet the load in the non-transfer case. Thus, there is an inconsistency between the cost calculations for the two cases.

Second, the assumption that only 50% of the energy from the combustion turbines can be sold to the spot market whenever the market prices are above the incremental cost of the combustion turbines is arbitrary. Instead of making an arbitrary 50% reduction to profits, Ameren Services should have performed specific production cost analysis in which sales limits from transmission constraints and depth of market limits are explicitly incorporated to determine the energy sales from the combustion turbines to the market and the amount of energy produced from the combustion turbines to serve native load.

Specifically, in order for the combustion turbines to be needed to serve load, 1 2 AmerenUE's other cheaper generating units must be forced out of service during peak 3 load conditions or during maintenance/refueling outage periods for AmerenUE's coal and 4 nuclear generating units. Ameren Services did not perform any analysis to show that the 5 50% level is consistent with having its other cheaper generating units forced out of 6 service. For example, if AmerenUE only needs to use these combustion turbines to meet 7 its load 5% of the time and can sell into the spot market the remaining time, then the 8 profits from off-system sales would have been \$23.3 million in present value, and the net 9 cost of the combustion turbines would have been \$418.4 million, identical to the cost of 10 the transfer. In summary, Ameren Services provided no analysis to support its assumed 11 50% reduction to the profits from off-system sales, and this number should be considered 12 arbitrary.

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## Q. Based on the analysis presented by AmerenUE, what is the Staff's conclusion regarding the Metro East transfer?

15 Α. Excluding the costs of nuclear decommissioning or any changes in the 16 JDA, the economics between the transfer or building the combustion turbines are a toss 17 up. This conclusion is based on the snapshot analysis performed by Ameren Services. A 18 more comprehensive analysis may reveal detrimental aspects of the transfer not detected 19 at this time. If nuclear decommissioning costs are included, the economics favor building 20 the combustion turbines, as Missouri becomes responsible for a greater portion of the 21 Callaway decommissioning liability. However, the economics can dramatically change 22 in favor of the transfer if the JDA is modified to reflect spot-market prices for energy

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transfers and an equitable sharing of profits from off-system sales is used instead of the
 current sharing based on system energy.

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### METRO EAST TRANSFER AND THE JOINT DISPATCH AGREEMENT

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#### What is the current form of the JDA between AmerenUE and AEG?

5 A. The current form of the JDA allows for the transfer of energy between 6 AmerenUE's generating resources and AEG's generating resources for the purpose of 7 meeting native load. As previously indicated, AEG is a non-regulated, EWG subsidiary 8 of Ameren that owns the generating assets that are used to serve the native load through Ameren Energy Marketing (AEM). A major portion of the native load for AEM is what 9 10 previously was the bundled retail load of AmerenCIPS. The JDA was agreed to in the 11 merger between Union Electric Company and Central Illinois Public Service Company as 12 a method for obtaining savings in generating costs from the merged entity. In this 13 agreement, the generating resources of both entities (AmerenUE and AEG) are 14 committed and dispatched to jointly serve the native loads of both entities (AmerenUE 15 and AEM). Thus, each hour, the actual generation of each entity will only match its 16 respective load by chance, with the most likely outcome being the transfer of energy from 17 one entity to meet the load of the other entity. Among other things, the JDA set out the 18 prices to be charged for the transferred energy. At the time of the merger, it was 19 determined that energy should transfer at a price equal to the incremental cost of 20 generating. In addition to the transfer price for energy, the JDA also set out how the cost 21 from off-system purchases and the profits from off-system sales should be distributed. 22 For each hour in which an off-system purchase is cheaper than generation for both 23 entities, the costs of the purchase are shared on a per megawatt-hour basis. Otherwise, 24 the costs of the off-system purchase are assigned to the entity for which the purchase is

cheaper than its own generation. Profits from off-system sales are distributed between
 the two entities in proportion to each entity's megawatt-hours of native load.

Q. What is the relationship of the JDA to the proposed Metro East
transfer?

5 Α. The JDA has a significant impact on the economics of the proposed Metro 6 East transfer. As a part of the transfer of the Metro East assets to AmerenCIPS, the 7 Metro East load will also be transferred to AEM. Under the current JDA, the joint unit commitment and dispatch will remain unchanged. However, the native loads for 8 9 AmerenUE and AEM will change. AmerenUE's native load will decrease and AEM's 10 native load will increase by the amount of the Metro East load. Thus, the transfer of 11 energy from AmerenUE's generating resource to serve AEM's load will increase and the 12 amount of energy from AEG's resources to serve AmerenUE's load will decrease. In addition, the amount of profits from off-system sales going to AmerenUE will decrease 13 14 and the amount of profits from off-system sales going to AEM will increase because of the change in native loads. It is also likely that a smaller portion of off-system purchases 15 16 will be allocated to AmerenUE and a larger portion to AEM.

17 Q. Did Ameren Services' calculations of generating cost savings include
18 these effects from the JDA?

A. Yes, the calculations made for the test year included the effects from the
existing JDA.

Q. If the JDA were changed to reflect market pricing of energy transfers
 and a more equitable sharing of profits from off-system sales, would this favor the
 economics for the Metro East transfer?

1 A. Yes, this would significantly increase the economics in favor of the Metro 2 East transfer. The current pricing of energy transfers at incremental cost instead of 3 market price is detrimental to the Metro East transfer in that all of the Metro East load 4 that is currently being served by AmerenUE generation would continue to be served by 5 AmerenUE generation at incremental cost. Thus, AmerenUE generation that is released 6 by the transfer would not be able to be sold into the spot market at competitive prices, but 7 would instead be sold to AEM at below market price. The energy transfer is 8 approximately 4 million megawatt-hours per year, and at a difference between market 9 price and incremental cost of only \$2.5 per megawatt-hour, the difference is \$10 million 10 per year. Given that Ameren Services' estimate only favors the Metro East transfer by \$2.4 million per year, an additional \$10 million per year would greatly enhance the 11 12 economics in favor of the transfer. This would significantly reduce the risk of undetected 13 detriments from the deficiencies of Ameren Services' analysis in this case.

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Q. What is the problem with the current JDA with respect to the distribution of profits from off-system sales?

16 The current JDA does not take into account the level of generation Α. 17 provided by each entity in making off-system energy sales. Moreover, whether those 18 sales are made from AmerenUE generating resources or AEG generating resources does 19 not matter. Instead, the profits are calculated each month and then divided between 20 AmerenUE and AEM based on their respective shares of native load. Thus, with respect 21 to the Metro East transfer, transferring load but not generating resources results in 22 AmerenUE supplying the same quantity of energy to the spot market from its generating 23 resources but receiving a significantly reduced share of profits from those sales. The

original sharing formula in the JDA is inequitable and the effect of that formula on the
 Metro East transfer makes a bad situation worse. In essence, the Metro East transfer
 increases the detrimental aspects of the JDA on Missouri consumers.

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Q. What is your recommendation regarding the JDA with respect to the Metro East transfer?

A. As a condition for approving the Metro East transfer the Commission
should require that energy transfers between the two entities take place at market prices
and that profits from off-system sales be distributed to the entity whose generation
supplied the energy for the sale.

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#### METRO EAST TRANSFER AND TRANSMISSION SERVICE

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## O. What is the direct impact of the proposed Metro East transfer on

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## ownership of transmission facilities?

A. Along with all Metro East distribution facilities, the proposed Metro East
transfer would in addition transfer all of AmerenUE's current transmission facilities
located in Illinois to AmerenCIPS. AmerenUE would maintain ownership of
transmission facilities across the Mississippi river.

17 Q. Is there a Staff concern with respect to either transmission service or
18 transmission costs?

A. In order to answer this question, first let me explain the form of
transmission service as it exists today, prior to the Metro East transfer. As a part of the
merger between Union Electric Company and Central Illinois Public Service Company,
the two separate control areas were combined into a single control area. This is directly
related to the JDA because a single dispatch of both companies' generation to meet the
load of both companies would be extremely complicated to perform across two separate

1 control areas. One of the primary functions of a control area is to dispatch and regulate 2 generation in such a way as to meet its net scheduled interchange - either net imports or 3 exports scheduled into and out of the control area. The control area is defined by points 4 of interchange with adjacent control areas, and these points of interchange are metered on 5 a real-time basis. In this way the control area operator has instantaneous information on 6 the power flows into and out of the control area. Energy scheduled in and out of the 7 control area (i.e., scheduled transmission transactions) equal what is called the control 8 area's net scheduled interchange. The control area operator sets generating levels at what 9 is expected to be native load plus net scheduled interchange. Since this is a forecast of 10 load, portions of capacity for specified generating units are set aside for automatic 11 generation control (regulation). As metered flows begin to deviate from the target (net 12 system interchange), these units will automatically adjust to bring metered flows back to 13 the targeted level. For example, if imports are too high, the automatic generation control 14 will increase output, resulting in less imported energy. If two companies were going to 15 engage in joint dispatch across two control areas, they would have to internally schedule 16 transfers of energy. Scheduling interchange and having each company perform 17 regulation would be complex and would limit the savings from the joint dispatch. Thus, 18 having a single control area increases the efficiency of the joint dispatch process. In 19 addition, with a single control area, there are no transmission charges associated with 20 energy transferred from one company to the other.

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Q. Will Ameren continue to operate a single control area if the Metro East transfer takes place?

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1 A. Yes, it is my understanding that this is Ameren's intention. AmerenUE 2 has not filed anything in this case that would indicate that a result of the Metro East transfer would be to divide Ameren into two control areas or to discontinue the joint 3 dispatch of the two companies. While the Metro East transfer would result in the Venice 4 5 Power plant that is located in Illinois remaining an AmerenUE owned generating 6 resource, and while that plant is interconnected to what would become AmerenCIPS 7 transmission, Ameren would continue to jointly dispatch the two systems with no 8 additional transmission charges.

9 Q. While your expectation is that there would be no changes in 10 transmission service or charges, are there any documents that are a part of the 11 proposed transfer that insure this?

A. Unfortunately, there are not. AmerenUE should have obtained written assurance from Ameren that it would be held harmless with respect to transmission service and transmission charges on any of its generating plants that are separated from its transmission system because of the proposed Metro East transfer. The Commission should require such documentation as a condition for approval of the transfer, and no transmission facilities should be transferred until such agreements are finalized and filed with the Commission.

19Q. Are there any other concerns regarding transmission with respect to20the Metro East transfer?

A. Yes, there are. Prior to the merger, the costs of AmerenUE's transmission
system were allocated among Missouri retail, Illinois retail and Wholesale customers.
This included transmission facilities located in both Missouri and Illinois that were

be transferred to AmerenCIPs and the remaining Missouri transmission facilities (plus
Mississippi River crossing transmission facilities) will be allocated between Missouri
retail and Wholesale customers. Unfortunately, AmerenUE did not provide testimony on
what the difference will be for Missouri retail customers. This cost difference must be
included in the economic comparison in order to determine whether or not the Metro East
transfer is detrimental to Missouri retail customers.

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#### Q. Does this complete your rebuttal testimony?

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- A. Yes, it does.