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**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO. EO-2012-0074**

**SURREBUTTAL TESTIMONY**

**OF**

**JAIME HARO**

**ON**

**BEHALF OF**

**UNION ELECTRIC COMPANY  
d/b/a AmerenMissouri**

St. Louis, Missouri  
June, 2012

Ameren Exhibit No. 4  
Date 6-11-12 Reporter KF  
File No. EO-2012-0074

**SURREBUTTAL TESTIMONY**

**OF**

**JAIME HARO**

**CASE NO. EO-2012-0074**

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

A. My name is Jaime Haro. My business address is One Ameren Plaza,  
1901 Chouteau Avenue, St. Louis, Missouri 63103.

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

A. I am Director, Asset Management and Trading for Union Electric Company d/b/a  
Ameren Missouri ("Ameren Missouri" or "Company").

**Q. Are you the same Jaime Haro who filed direct testimony in this case?**

A. Yes, I am.

**Q. What is the purpose of your surrebuttal testimony in this proceeding?**

A. The purpose of my surrebuttal testimony is to respond to the direct/rebuttal  
testimony of various witnesses who contend that Ameren Missouri's energy and capacity sales  
contracts with the American Electric Power Operating Companies ("AEP") and Wabash Valley  
Power Association, Inc. ("Wabash") do not reflect long-term requirements sales. Based on those  
contentions, these parties argue that the AEP and Wabash sales are not excluded from the term  
"OSSR" as defined in the Company's Fuel and Purchased Power Adjustment Clause tariff  
("FAC tariff") in effect during the period addressed in this prudence review.

**Q. At pages 14-15 of his direct/rebuttal testimony, Staff witness Dana Eaves  
states that you have not provided a definition of a long-term partial requirements contract.  
In this context, what is the definition of that term?**

1           A.     As I testified in Case No. EO-2010-0255, a contract reflects a long-term partial  
2 requirements sale if it calls for the sale of firm power (and capacity) to a purchasing entity with  
3 an obligation to serve load during the term of the agreement. Other requirements of buyers who  
4 must serve load could include things like regulation, spinning reserves and supplemental  
5 reserves. The demarcation between short- and long-term is one year. I would also note that the  
6 only other witness in this case or in Case No. EO-2010-0255 that has any actual experience in  
7 the power sales business, Duane Highley from Associated Electric Cooperative, Inc., agreed with  
8 this definition. Case No. EO-2010-0255, Ex. 7, p. 5, l. 13-17 (regarding requirements sale); p. 6,  
9 l. 7-9 (regarding long-term).

10           **Q.     Are these the definitions as you understood them to be at the time that the**  
11 **FAC tariff was proposed, considered by the Commission, and ultimately approved by the**  
12 **Commission, as well as at the time that the AEP and Wabash agreements were executed?**

13           A.     Yes. Those definitions have been well-established in the power sales industry for  
14 many years, certainly since the evolution of modern wholesale energy markets post-FERC Order  
15 888, which was issued in 1997.

16           **Q.     Do the AEP and Wabash contracts in fact reflect long-term partial**  
17 **requirements sales?**

18           A.     Yes they do. The contracts themselves, which I have attached as Schedules  
19 JH-S1 and JH-S2, have terms of 15 months (AEP) and 18 months (Wabash). Consequently they  
20 reflect long-term sales under the commonly accepted use of that term in the wholesale electric  
21 marketplace, and as the Company has consistently used that term in connection with its activities  
22 related to wholesale power marketing. The contracts also specifically provide that the firm  
23 capacity and energy sold under the contracts will be used to meet load obligations of the

1 purchasers, who themselves have load-serving obligations. This is the commonly understood  
2 meaning of a partial requirements sale, as I noted earlier, and it is how the Company has  
3 consistently used that phrase in connection with its activities relating to wholesale power  
4 marketing. The Wabash contract states: “The Buyer shall use the Product [capacity and energy]  
5 to partially meet the requirements of Citizens Electric Corporation in Missouri.” The AEP  
6 contract states: “The Capacity and Energy provided by AmerenUE herein will enable AEP to  
7 partially meet load serving requirements,” and the “Trade Type” is identified as “PHYSICAL  
8 Capacity and associated energy (Partial Requirements—Baseload).” As a consequence of both  
9 the contract terms and the nature of the contracts, both contracts reflect partial requirements  
10 sales.

11 **Q. Missouri Industrial Energy Consumers (“MIEC”) witness Maurice**  
12 **Brubaker argues that the words in the contract have “no meaning as to the character of the**  
13 **service supplied,” and that “[c]alling these transactions requirements service does not**  
14 **make them so anymore [sic] than calling a dog a duck makes it quack.” (Brubaker direct,**  
15 **p. 9, lines 1-2). Is Mr. Brubaker correct?**

16 **A.** No, Mr. Brubaker, who concedes that he is not an expert in either energy  
17 marketing or trading,<sup>1</sup> is incorrect. Not only do the words in the contracts have meaning, in that  
18 they constitute the terms of seller’s and buyers’ obligations, but as noted, the nature of these  
19 buyers is such that they have a requirement to serve load. Including terms in a contract that  
20 accurately reflect the terms of the sale is not the equivalent of calling a dog a duck. It might be  
21 “calling a dog a duck” if a power seller entered into a contract with a financial trading firm (e.g.,  
22 banks like Barclay’s and Citibank, which regularly buy power for trading purposes but which

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<sup>1</sup> Case No. EO-2010-0255, Tr. p. 501, l. 8-13.

1 have no load serving requirements) and stated that the power is to be used to serve load the buyer  
2 *doesn't have*, but it's calling a "duck a duck" to state that the power sold here is to serve load  
3 requirements that the purchasers *actually have*.

4 **Q. Are these contracts, in substance, partial requirements contracts?**

5 A. Yes, they are. As indicated in the agreements, capacity and energy from the  
6 Wabash contract is to be used to partially meet the load obligations of one of its members,  
7 Citizens Electric Corporation ("Citizens"), which is a large electric cooperative that serves more  
8 than 20,000 customers in Southeast Missouri. Wabash is the not-for-profit cooperative that  
9 acquires capacity and energy on behalf of its members, including Citizens, which use that  
10 capacity and energy to meet their load obligations. Capacity and energy provided under the AEP  
11 contract is to be used to partially meet the load obligations of the AEP Operating Companies,  
12 which consist of electric utilities serving more than 5 million customers in 11 states.

13 **Q. What is the basis for the other parties' contention that the AEP and Wabash**  
14 **contracts do not reflect long-term partial requirements sales?**

15 A. The Staff relies on how the Company reported the subject contracts pursuant to  
16 reporting instructions on page 310 of the Federal Energy Regulatory Commission's ("FERC")  
17 Form 1, which is the annual report for electric companies used by FERC and adopted by the  
18 Missouri Public Service Commission. For reporting purposes only, this form classifies contracts  
19 as short-term (less than one year), intermediate term (1-5 years) and long-term (greater than  
20 5 years). Form 1 also applies a definition of "requirements service" (it has no definition for a  
21 "requirements sale"), which ties to a utility's system resource planning. MIEC witness Brubaker  
22 uses the identical "requirements service" definition from an Edison Electric Institute ("EEI")  
23 glossary, which Mr. Brubaker agrees was adopted by EEI from the FERC Form 1.

1           **Q.     Is the FERC Form 1 relied upon in the power sales business as a reference**  
2 **for contract negotiations or for defining the seller's or buyer's obligations under a power**  
3 **sales contract?**

4           A.     No. In my 14 year career in the power sales business, and specifically in  
5 wholesale power marketing and trading, I have never once heard any reference to FERC Form 1  
6 (by those engaged in power marketing at Ameren Missouri or by other market participants), let  
7 alone to the obscure reporting instructions found at page 310, in negotiating the terms and  
8 conditions of wholesale power contracts, or in defining the parties' obligations.

9           **Q.     Is it appropriate to use the definitions of "long-term" and "requirements**  
10 **service" contained in FERC Form 1 to interpret Ameren Missouri's FAC tariff?**

11          A.     No, it is not. The delineations between categories of contracts for annual  
12 reporting purposes contained in Form 1 bear no resemblance to the definitions of those terms  
13 used in the modern power sales business, and no relationship to the common meaning of the  
14 terms "long-term" and "requirements sale." The FERC Form 1 reporting instructions date back  
15 at least to 1990, years before the modern open access market for electricity existed. I have  
16 attached as Schedule JH-S3 a copy of page 310 of Union Electric Company's 1990 Form 1  
17 which shows the use of these terms in the reporting form has not changed over the last 20 years.

18          **Q.     Has the wholesale market for electric energy changed since the definitions of**  
19 **"long-term" and "requirements service" were first included in the reporting instructions**  
20 **used for the Form 1 Report?**

21          A.     Yes, the wholesale market has changed dramatically since those definitions were  
22 first included. The definitions included in the Form 1 predate both the Energy Policy Act of  
23 1992 and FERC Order 888, which fundamentally changed the wholesale market for electricity in

1 the United States. The Energy Policy Act of 1992 laid the foundation for the eventual  
2 deregulation of the wholesale market for energy in North America by requiring utility companies  
3 to allow external entities fair access to electric transmission systems, thereby enabling large  
4 energy customers to choose their electric suppliers. The FERC adopted Order 888, as well as a  
5 series of related orders, in the late 1990s to ensure the objectives of the Energy Policy Act were  
6 implemented through standards mandating fair and open access to transmission. In short, the  
7 modern wholesale market for electricity bears little resemblance to the market that existed when  
8 the definitions of “long-term” and “requirements service” were first adopted in the reporting  
9 instructions for the Form 1.

10 **Q. Do participants in the electric markets refer to contracts with a term of**  
11 **1-5 years as “intermediate term” contracts?**

12 A. No. In the 14 years that I have marketed and traded power, I do not recall ever  
13 hearing the phrase “intermediate term” used to describe a contract, let alone specifically one with  
14 a term duration of 1-5 years (as defined on page 310 of the FERC Form 1). In fact, the first time  
15 I ever heard the use of the phrase “intermediate term” was when Mr. Eaves brought up the FERC  
16 Form 1 instructions in his pre-filed testimony in Case No. EO-2010-0255. I would note that  
17 Mr. Eaves did not list the FERC Form 1 (nor did Staff in general list it) in his portion of the  
18 Staff’s prudence review report in that case, even though it later became the centerpiece of  
19 Mr. Eaves’ argument that a contract is only “long-term” if it has a term of more than five years.  
20 I would also note that Staff witness Lena Mantle contradicted Mr. Eaves in Case No. EO-2010-  
21 0255, arguing at various times that “long-term” meant about three years or perhaps four years,  
22 although she cited no basis for those contentions. And I would note that Mr. Brubaker has never  
23 taken issue with the Company’s contention that “long-term” means one year or more.

1 Regardless, in the electric power sale business, the demarcation point between long-term and  
2 short-term is indisputably one year, and has been for many, many years.

3 **Q. Does FERC itself use the definitions appearing on page 310 of the FERC**  
4 **Form 1 in differentiating between long-term and short-term contracts?**

5 A. No. In its decisions dating back to at least 2002, FERC has completely ignored the  
6 reporting convention in its Form 1 and has consistently used one year as the demarcation  
7 between short-term and long-term contracts. The FERC made this abundantly clear in its order  
8 in Docket No. RM06-10-001, issued June 22, 2007—less than a year before Ameren Missouri’s  
9 filing in Case No. ER-2008-0318 (the case in which the FAC tariff in effect during the  
10 accumulation period for this prudence review was approved). In that order, FERC described its  
11 consistent use of this demarcation between long- and short-term contracts:

12 Additionally, the Commission at the time of enactment of EPAct 2005 had for  
13 years defined long-term contracts under the OATT as one year or longer.  
14 Similarly, the Commission has treated power sales with a contract term of greater  
15 than one year to be “long-term” for reporting purposes. See, e.g., Revised Public  
16 Utility Filing Requirements, Order No. 2001, 667 FR 31043, FERC Stats.& Regs.  
17 par. 31,127 (2002), Order No. 2001-A, 100 FERC par. 61,074, reconsideration  
18 and clarification denied, Order No. 2001-B, 100 FERC par. 61, 342 (2002). **We**  
19 **thus believe it is reasonable to use the convention of treating contracts of a**  
20 **year or more as “long-term” consistent with our longstanding practice.**  
21 (emphasis added.)<sup>2</sup>  
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<sup>2</sup> *Re: New PURPA 210(m) Regulations Applicable to Small Power Production and Cogeneration Facilities*, 119 FERC ¶ 61,305 (2007), p. 18-19 n.17.



1 Additionally, the FERC's Electronic Quarterly Report ("EQR") data dictionary states: "Contracts  
2 with a duration of one year or greater are long-term. Contracts with shorter durations are short-  
3 term." (*Re: Revised Public Utility Filing Requirements for Electric Quarterly Reports*, "Order  
4 Revising Electric Quarterly Report Data Dictionary," 125 FERC ¶ 61,103 (2008) p. 33). All  
5 public utilities and power marketers must file EQRs for each calendar quarter. The filings must  
6 summarize contractual terms and conditions for market-based power sales, cost-based power  
7 sales, and transmission service. EQRs provide a detailed, comprehensive view of the wholesale  
8 power markets on a transaction-by-transaction basis. Unlike FERC Form 1, the information  
9 from EQR reports is regularly reviewed and utilized by real world wholesale power market  
10 participants. The Kirkwood, Kahoka, Marceline, Perry, AEP and Wabash contracts are all  
11 categorized as long-term firm contracts in this report.

12 There are also numerous FERC orders in individual cases that reflect the common  
13 definition of one year for long-term contracts. For example, in its order in the *Mountainview*  
14 *Power* case, FERC stated:

15 While we are conditionally accepting the PPA on the basis that it is consistent  
16 with the Commission's current policy, we will henceforth require that all affiliate  
17 **long-term (one year or longer) power purchase agreements**, whether at cost or  
18 market, be subject to the conditions set forth in Edgar. (emphasis added.)<sup>3</sup>  
19

20 **Q. Why does FERC Form 1 continue to categorize contracts as short-term,**  
21 **intermediate-term and long-term when these categories are not used by FERC in other**  
22 **contexts?**

23 A. I don't know why FERC chose those reporting classifications more than 20 years  
24 ago. As best as I can tell, those classifications are simply a vehicle for data collection for that

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<sup>3</sup> *Re: Southern California Edison Company, On Behalf of Mountainview Power Company LLC*, "Order Conditionally Accepting Proposed Rate Schedule and Revising Affiliate Policy," 106 FERC ¶ 61,183, at 58 (2004).

1 particular report. FERC Form 1 could require that contracts be divided into 3 or 5 or 20 different  
2 categories, but that reporting convention would not affect what is a long-term or short-term  
3 contract in the marketplace, or how FERC delineates short-term and long-term contracts in other  
4 contexts pursuant to its longstanding practice. The FERC Form 1 instructions are for the limited  
5 purpose of completing page 310 of the form. Those definitions never applied to or limited the  
6 use of the term “long-term” as it is currently used in the wholesale power market. In particular,  
7 they have never formed the basis of Ameren Missouri’s understanding of the meaning of “long-  
8 term” in the wholesale marketplace, nor are those terms even used in the power sales business.

9 **Q. Is there other evidence that the standard definition of long-term is one year**  
10 **or longer?**

11 A. Yes. In other areas of the electric business, one year is consistently used as the  
12 demarcation point between long-term and short-term. Both the Midwest Independent  
13 Transmission System Operator, Inc. (“MISO”) tariff as well as FERC’s pro forma Open Access  
14 Transmission Tariff (“OATT”) define long-term point-to-point electric transmission as one year  
15 or longer. Additionally, the North American Electric Reliability Corporation (“NERC”)   
16 Glossary of Terms Used In Reliability Standards defines a Resource Planner as: “The entity that  
17 develops a *long-term (generally one year and beyond)* plan for the resource adequacy of  
18 specific loads (customer demand and energy requirements) within a Planning Authority Area.”  
19 (emphasis added.) See Schedule JH-S4. Even the Ameren Missouri FAC tariff at issue in this  
20 case uses one year as the demarcation point between capacity contracts whose costs are included  
21 as purchased power expense and flowed through the FAC and those whose costs are not included  
22 as purchased power expense and are thus excluded from the FAC. (See Original Sheet No. 98.3,  
23 definition of “CPP”). This is a clear recognition that one year is the appropriate demarcation

1 between long-term and short-term capacity contracts. Outside the context of power sales and  
2 transmission, long-term is also regularly used to describe other types of contracts of one year or  
3 more. For example, as Ms. Barnes testifies, this Commission considers debt instruments with a  
4 term of one year or longer to be long-term debt in establishing the capital structures for all  
5 utilities.

6 **Q. Notwithstanding that one year is used by wholesale power market**  
7 **participants, by the FERC and in other contexts as the demarcation between long-term and**  
8 **short-term contracts, is it possible that the FAC tariff at issue in this case was meant to**  
9 **incorporate the definition of long-term contracts (5 years) contained on page 310 of the**  
10 **FERC Form 1?**

11 A. No, that is not possible. When Ameren Missouri originally proposed the FAC  
12 tariff, when it was being considered by the parties to Case No. ER-2008-0318, and when the  
13 Commission ultimately approved the tariff in that case, the scope of the exclusion from “OSSR”  
14 was clearly meant to be broad enough to encompass the municipal contracts with the cities of  
15 Kirkwood, Marceline, Perry and Kahoka that were in existence at the time the tariff was  
16 approved. All parties apparently agree with this because no party argues that it was improper for  
17 Ameren Missouri to exclude the revenues from those municipal contracts from OSSR for the  
18 period at issue in this prudence review proceeding. But only one of those contracts, the contract  
19 with the City of Perry, had a term of five years or longer. The contracts for Kirkwood  
20 (29 months), Marceline (36 months), and Kahoka (36 months) had significantly shorter terms.<sup>4</sup>  
21 The intended meaning of “long-term” in the FAC tariff had to be less than five years, or these

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<sup>4</sup> Ameren Missouri’s municipal contracts have sometimes been shorter than the AEP and Wabash contracts. For example, in October 2009, Ameren Missouri and the City of Kirkwood entered into a separate partial requirements

1 contracts would not have qualified for the exclusion. Consequently, it is not possible that the  
2 tariff could have been based on consideration of the definition of long-term (5 years) found on  
3 page 310 of FERC Form 1.

4 Those who argue that the AEP and Wabash contracts are included in factor OSSR cannot  
5 have it both ways; that is, they can't claim the FERC Form 1 reporting instruction definition of  
6 five years or longer for "long-term" controls, but at the same time exclude contracts with terms  
7 of less than five years (29 months, 36 months and 36 months) from OSSR. This conclusively  
8 shows that the FERC Form 1 instructions had nothing to do with the meaning of the phrase  
9 "long-term full and partial requirements sales" in the Company's FAC tariff.

10 **Q. Turning now to the debate about when a contract reflects a "partial**  
11 **requirements sale," you previously stated that this term refers to, among other things, the**  
12 **seller's obligation to sell firm energy and capacity to meet part of the purchasing entity's**  
13 **load obligation during the term of the agreement. Is there support for this definition?**

14 A. Yes. Based on my years of experience as a marketer and trader of power, this is  
15 the definition of a partial requirements sale that market participants use. This definition is also  
16 supported in industry publications. For example, EEI's Glossary of Electric Industry Terms,  
17 p. 115, defines "Partial Requirements" as "a wholesale customer who purchases, or is committed  
18 to purchase, only a portion of its electric power generation need from a particular entity. There  
19 often is a specified contractual ceiling on the amount of power that a partial requirements  
20 customer can take from the entity. In contrast, a 'requirements' or 'full requirements' customer  
21 is committed to purchase all of its needs from a single entity and generally would not have a  
22 ceiling on the amount of power it can take." Similarly, the North American Energy Standards

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agreement with a term of 14 months. In 2008, Ameren Missouri entered into a partial requirements contract with the

1 Board (“NAESB”) Wholesale Electric Quadrant (“WEQ”) Glossary defines “Partial  
2 Requirements” as “a sale of power to a purchaser in which the seller pledges to meet a specified  
3 part of the purchaser’s requirements.” Copies of the EEI and NAESB definitions are attached as  
4 Schedule JH-S5. These definitions are intuitive. They make common sense based on the plain  
5 meaning of the words “partial” and “requirements.” Webster’s Dictionary defines “partial” as  
6 “of or relating to a part rather than the whole; not general or total,” and it defines “requirement”  
7 as “something required; something wanted or needed; necessity; something essential to the  
8 existence or occurrence of something else.” Webster’s Ninth New Collegiate Dictionary. So it  
9 makes logical sense that a partial requirements sale would be a sale that provides *part* of the  
10 power and capacity needed by the purchasing entity to meet its load obligations.

11 **Q. As previously discussed, some of the witnesses in this case rely on the**  
12 **definition “requirements service” contained in FERC Form 1 reporting instructions (and**  
13 **repeated in the EEI glossary) to argue that the AEP and Wabash contracts do not reflect**  
14 **long-term partial requirements sale. Do you have any further comment on this?**

15 A. Yes. First, to state the obvious, neither the FERC Form 1 nor the EEI glossary  
16 contain a definition for “partial requirement sales” let alone for “long-term partial requirements  
17 sales.” Second, let me reiterate that the 20-year-old FERC Form 1 definition of “requirements  
18 service” is not the appropriate definition to use for purposes of classifying the AEP and Wabash  
19 contracts. It does not match the definition of requirements sale commonly used in the modern  
20 marketplace, and does not comport with the plain meaning of the word “requirements” as  
21 contemplated in Ameren Missouri’s tariff. Moreover, as I previously discussed, it is clear that  
22 the FERC Form 1 definition was not being relied upon when the FAC tariff was drafted and

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City of Kahoka for a term of 22 days.

1 approved. In fact, the FERC Form 1 instructions' definitions were not before the Commission in  
2 the rate case where the subject FAC tariff was approved at all, and as I noted, weren't brought up  
3 by anyone until after-the-fact, indeed after the Staff had already claimed "imprudence" for how  
4 we classified the subject contracts. And the FERC Form 1 instructions' definitions simply  
5 cannot have formed the basis for the meaning of the FAC tariff language because if they did all  
6 but one of the Company's municipal contracts would have had to have been reclassified because  
7 they do not meet the definition of "long-term" contained in Form 1. Since the Form 1 definition  
8 of "long-term" was not being considered when the Company's FAC tariff was developed and  
9 adopted, it is not reasonable to believe the definition of "requirements service" that appears on  
10 the same page of Form 1 -- and that doesn't even appear in the FAC tariff -- was being  
11 considered. In other words, these FERC Form 1 instructions either formed the basis for the  
12 meaning of the phrase "long-term full and partial requirements sales" in the Company's FAC  
13 tariff or they did not. Neither Staff nor the other parties can pick and choose one definition  
14 (e.g., "requirements service") while ignoring the other (e.g., "long-term"). Finally, I would note  
15 that here too the Staff witnesses are not on the same page. While Mr. Eaves points to the FERC  
16 Form 1 instructions' definitions which include the "requirements service" definition, Ms. Mantle  
17 disagrees with Mr. Eaves in that she testified that under her definition of "requirements" the AEP  
18 and Wabash contracts do reflect requirements sales. Case No. EO-2010-0255, Tr. p. 380,  
19 l. 13-17.

20 **Q. What about Mr. Eaves' contention that there must be an "ongoing"**  
21 **relationship with the buyer in order for a requirements sale to exist?**

22 **A.** The Commission bought into this concept in the Report and Order in Case No.  
23 EO-2010-0255 as well. This "ongoing" principle appears in the FERC Form 1 instructions'

1 definitions. I have already explained that those instructions cannot possibly control, inform, or  
2 have been relied upon when the “long-term partial requirements sale” provision in the FAC tariff  
3 was proposed and approved.

4         Additionally, it must be noted that the facts do not support Mr. Eaves’ construction of  
5 “ongoing.” In addition to the four long-term requirements contracts with municipalities I  
6 referred to earlier that were in effect while the AEP and Wabash contracts were in effect, the  
7 Company formerly had long-term requirements contracts with two other cities, Hannibal and  
8 Centralia. Those two contracts both expired December 31, 2008. The Company has not had a  
9 contract with them since then. However, even though the Company had no contract with them  
10 and no intention of continuing to sell them energy and capacity, when the FERC Form 1 for 2008  
11 was filed in April, 2009, the contracts were listed as “RQ,” the FERC Form 1 instructions’  
12 “requirements service” definition, though they had both already expired as of the date the form  
13 was submitted. If Mr. Eaves were right that the concept of ongoing requires that one intends to  
14 continue serving a particular buyer’s load, then clearly neither of those agreements could be  
15 considered “RQ” because there would be no “ongoing” service. No one has suggested that those  
16 contracts did not reflect long-term partial requirements sales, just as no one contends that the  
17 four other municipal contracts (three of which do not meet the “long-term” definition in the  
18 FERC Form 1 instructions) do not reflect long-term requirements sales. The bottom line is that  
19 Mr. Eaves’ opinion regarding what “ongoing” means can’t be squared with the facts.

20         Perhaps even more important is the fact that the most recent IRP at that time specifically  
21 noted that the Company had *not* included any load obligation for any of the agreements with the  
22 cities (Centralia, Hannibal, Kirkwood, Kahoka, Marceline, Perry) beyond December 31, 2008.  
23 (This was previously noted by Mr. Steven M. Wills in his surrebuttal testimony [p. 4, l. 20-21] in

1 Case No. EO 2010-0255). It makes no sense for Mr. Eaves to somehow divine an intent on the  
2 Company's part to serve a customer on an "ongoing" basis according to his view of what that  
3 means when the Company's IRP specifically excludes those customers' volumes from its service  
4 plans, indicating that the Company isn't going to serve them on an "ongoing basis" (as Mr.  
5 Eaves would define the term). In sharp contrast, the volumes (loads) associated with the AEP  
6 and Wabash agreements – which were the volumes that would have been taken by Noranda's but  
7 for the ice storm – were specifically included in the IRP. And as Mr. Wills testifies, the AEP and  
8 Wabash contracts were reflected in the analysis that formed the basis for the next IRP (filed in  
9 February 2011) for the duration of the contract terms. If anything, the notion that Ameren  
10 Missouri had an ongoing intent to serve this load as evidenced by the IRP is much stronger with  
11 regard to the AEP and Wabash agreements than it is for the agreements with the various cities.

12 The bottom line is that just as is the case with the FERC Form 1 instructions' definition  
13 of "long-term," the Staff and interveners attempt to rely upon their take on a FERC Form 1  
14 instructions' definition of "requirements service" that would, if applied equally to other contracts  
15 with the cities (that all agree *are* long-term requirements sales) would in fact disqualify them as  
16 such.

17 All of this discussion about the FERC Form 1 instructions' definitions is really a  
18 sideshow, because I've demonstrated that those instructions can't apply, both because of the  
19 facts surrounding all of the Company's long-term requirements sales, and because the  
20 instructions weren't on anyone's minds, or before the Commission, when the FAC tariff was  
21 proposed or approved.

22 **Q. Another argument that has been made is that because the AEP and Wabash**  
23 **contracts were not included in the Company's IRP then those contracts were not part of**



1 the Company's "system resource planning," as that term is used in the FERC Form 1  
2 instructions' definitions. Were the sales to AEP and Wabash considered in Ameren  
3 Missouri's system resource planning?

4 A. Absolutely. As Mr. Wills explains, the IRP merely reflects a snapshot of Ameren  
5 Missouri's resource plan at a point in time – as of February 2008. Obviously the 2008 IRP  
6 predated the beginning and end of the AEP and Wabash contracts since they did not begin until  
7 March and May, respectively. An IRP is not the embodiment of the ongoing system resource  
8 planning process that occurs every day between the three-year IRP preparation and filing cycle.<sup>5</sup>  
9 Aside from the snapshot in the IRP, the AEP and Wabash contracts were important  
10 considerations in that ongoing planning process. For example, the MISO requires Ameren  
11 Missouri to demonstrate on a monthly basis that it has sufficient "Planning Resource Credits" to  
12 cover its firm demand (load and sales) plus an applicable reserve margin. As noted, to make this  
13 demonstration, Ameren Missouri submits a "Module E" compliance report to the MISO.  
14 Ameren Missouri accounted for the AEP and Wabash contracts in its Module E filings because  
15 these contracts call for the sale of firm capacity. This is just one example of how Ameren  
16 Missouri engaged in system planning that accounted for both the AEP and Wabash loads. In  
17 addition, Ameren Missouri included these loads in its annual and monthly capacity position  
18 calculations, load forecasting, fuel budgeting and risk management position calculations. These  
19 are all elements of system resource planning. And again, this "system resource planning"  
20 concept comes from the FERC Form 1 instructions' definitions, which have nothing to do with  
21 this case anyway.

---

<sup>5</sup> As Ameren Missouri witness Steve Wills discusses in his surrebuttal testimony, Mr. Brubaker contradicts the Staff's contention that not listing the two contracts in the IRP renders them outside the system resource planning

1           **Q.     You also characterize the sales obligation under the AEP and Wabash**  
2 **agreements as calling for delivery assurances second only to the service provided to**  
3 **Ameren Missouri's own customers. Can you explain further?**

4           A.     Yes. The Wabash contract specifically addresses this issue. Paragraph 19 of the  
5 contract states in relevant part: "Seller agrees that it will consider Buyer equivalent to Seller's  
6 native load customers and agrees that the Product that it will provide to Buyer, pursuant to this  
7 Agreement, will be System Firm power with the same quality as the electric power that the Seller  
8 provides to its firm retail customers." The AEP contract provides for the sale of "Firm LD  
9 Capacity as that term is defined in the Edison Electric Institute MISO Module E Capacity  
10 Transaction Confirmation, Version 1.0--October 20, 2008 incorporated herein by this reference  
11 and associated Firm LD Energy." The Company's obligation to AEP and Wabash was the same  
12 as, or second only to, the service obligation it has to its own customers.

13           **Q.     On page 7 of his direct testimony, MIEC witness Brubaker points out that**  
14 **under the AEP and Wabash contracts Ameren Missouri is not providing various RTO and**  
15 **OATT services, and implies that this fact is relevant to whether the AEP and Wabash**  
16 **contracts reflect requirements sales. Do you agree?**

17           A.     No. Mr. Brubaker's testimony proves just one thing: that AEP and Wabash, and  
18 not Ameren Missouri, are responsible for various RTO and OATT charges. Whether Ameren  
19 Missouri pays these charges and then bills Wabash and AEP, or Wabash and AEP pay them  
20 directly, has nothing to do with whether the power sales reflected in the contracts are partial  
21 requirements sales. More importantly, I would note again that the AEP and Wabash agreements  
22 are *partial* requirements sales and as such one should not expect them to impose on the seller the

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process. Mr. Brubaker admitted that whether the contracts are listed in the IRP is not determinative of whether they

1 obligation to provide every activity or product feature that one might expect if a full  
2 requirements sale was agreed upon.

3 I have attached as Schedule JH-S6 some examples of other requirements contracts where  
4 the purchaser, not the seller, is responsible for some of these RTO and OATT services, including  
5 an agreement with the City of Kirkwood, which the Commission itself has described as a full  
6 requirements wholesale customer.<sup>6</sup>

7 **Q. You previously referenced the FERC EQR. In Mr. Brubaker's testimony he**  
8 **finds it notable that "Ameren Missouri did not classify either the AEP sale or the Wabash**  
9 **sale as requirements contracts in its EQR filings," apparently suggesting that this shows**  
10 **that they are not requirements sales. How do you respond?**

11 A. Mr. Brubaker should have examined the EQR filings more carefully. Not only  
12 are the AEP or Wabash agreements not reported in the EQR as requirement contracts, but neither  
13 are the agreements with Kirkwood, Kahoka, Marceline, Perry. This is something that  
14 Mr. Brubaker should have known (or if he did know should have acknowledged), because I  
15 made note of this in my surrebuttal testimony in Case No. EO-2010-0255, (p. 7, l. 1-2). If  
16 Mr. Brubaker's theory is that not designating a contract in the EQR as "requirements service"  
17 means it is not a "requirements sale" within the meaning of the FAC tariff, then like Mr. Eaves'  
18 misapplication of "long-term" from the FERC Form 1 instructions' definitions the contracts with  
19 the municipalities would also fail to qualify. No one makes such a claim. Consequently, for this  
20 additional reason it is obvious that what is a "requirements sale," as used in the FAC tariff, is not

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are requirements sales. Case No. EO-2010-0255, Tr. p. 502, l. 12-18; 23 to p. 503, l. 6.

<sup>6</sup> Comments of the Missouri Public Service Commission Regarding the Department of Energy's 2009 Transmission Congestion Study and the Designation of National Interest Electricity Transmission Corridors, p. 6 n.2, presented at the June 18, 2008 Pre-Congestion Study Regional Workshop in Oklahoma City, Oklahoma. See Schedule JH-S7.

1 controlled or informed by the definitions of “requirements service” in either the FERC Form 1  
2 instructions or the FERC EQR.

3 **Q. At pages 15-17 of his testimony, Mr. Eaves also attempts to use recent FERC**  
4 **Form 1 reporting as a basis to argue that the subject contracts do not reflect long-term**  
5 **partial requirements sales, describing a change in the reporting for the AEP and Wabash**  
6 **contracts from 2009 to 2010. Was there a change?**

7 A. Yes, there was. As Ms. Barnes explains in her surrebuttal testimony, the  
8 Company’s accounting staff had previously used a simple litmus test in deciding if a contract  
9 should be reported as “RQ”. That litmus test was whether the contract was listed in the last IRP  
10 completed before the report was made. However, as I explained earlier system resource planning  
11 is an ongoing process that is broader than the snapshot taken each time an IRP is prepared. It’s  
12 my understanding that the accounting staff, in recognition of this fact, subsequently determined  
13 that it was more appropriate to tie RQ reporting to whether the contract was included in system  
14 planning (e.g., reported in our Module E submittals to MISO) rather than simply listed in the  
15 IRP.

16 **Q. But Mr. Eaves also claims that in 2010 the AEP contract was reported as**  
17 **“SF”, which stands for short-term firm, apparently implying that the Company has**  
18 **referred to the AEP contract at issue in this case as a “short-term” contract. Is he correct?**

19 A. No, he is not. FERC Form 1 includes many transactions. The contracts reported  
20 in 2010 as “SF” were completely different contracts with AEP than the contract that is at issue in  
21 this case. As a matter of fact, the line in the FERC Form 1 report that Mr. Eaves pointed to  
22 summarizes 77 different transactions with AEP totaling 14,121 MWh. Because all of those  
23 transactions had terms of less than one year (and most of them only a few hours) they are of

1 course short-term contracts. Mr. Eaves wrongly assumed that he was looking at reporting for the  
2 AEP contract at issue in this case – he wasn’t.

3 **Q. Mr. Eaves also points to an AEP contract report in 2009’s FERC Form 1 as**  
4 **SF. Did he make the same mistake?**

5 A. Yes, he did. Again, the AEP contract at issue in this case was reported as “IF,”  
6 which stands for “intermediate firm” according to the FERC Form 1 instructions. As I already  
7 explained, in the power sales business the concept of an “intermediate” term contract isn’t  
8 relevant – anything over one year is long-term – but we are constrained to use “IF” for a contract  
9 with a term of more than one year but less than five years for FERC Form 1 reporting purposes.  
10 The contracts with AEP designated as “SF” in the 2009 FERC Form 1 were 86 different short-  
11 term contracts, totaling 18,747 MWh, and – all had individual terms of less than a year.

12 **Q. On page 18 of his testimony Mr. Eaves poses the following question to which**  
13 **he gives the following answer:**

14 **Q. Do you know when Ameren Missouri initially entered into these [the**  
15 **Kirkwood, Kahoka, Marceline, Perry] contracts?**

16  
17 **A. No. In response to Staff Data Request 58 in File No. EO-2010-0255,**  
18 **Ameren Missouri stated ‘Ameren Missouri is unable to ascertain the dates**  
19 **requested’.**

20  
21 **Did Mr. Eaves accurately represent the question asked of the Company and its**  
22 **answer?**

23 A. No, he did not. While he accurately quoted our *response*, he failed to note that  
24 the *question posed* in that data request did not ask for the date that these agreements were entered  
25 into. Rather, it very specifically and narrowly asked for the date that was “the first time  
26 AmerenUE or Union Electric initially provided service to each Municipal customer through a

1 requirements contract, enabling agreement or arrangement.” That is, the data request asked for  
2 the very first time that Ameren Missouri provided service to one of these entities.

3 **Q. So are you saying that Mr. Eaves’ representation that he doesn’t know when**  
4 **Ameren Missouri provided service to these municipalities is wrong?**

5 A. Yes, because we have provided all of the information he needs to ascertain those  
6 dates and we fully answered his questions. Ameren Missouri’s responses to Staff Data Requests  
7 50 and 50.1 in Case No. EO-2010-0255 (which Mr. Eaves himself asked) included copies of  
8 each of those municipal agreements. Those contracts contained not only the date of execution  
9 but all pertinent terms and conditions, including the specific terms of the contracts.

10 They clearly show the start and end date of the contracts and the fact that for 3 of  
11 the 4 terms are clearly less than five years (and more than one year) and that therefore they too  
12 would not be “long-term” under the FERC Form 1 instruction definition Mr. Eaves relies upon.

13 **Q. Why do you bring this up?**

14 A. Because Mr. Eaves’ testimony leaves a misleading impression. While I can’t  
15 speak to what Mr. Eaves does or does not know – he may have been mistaken without realizing  
16 it – the impression his question and answer leaves is that the four municipal contracts may have  
17 been going on for many years, and that this then supports his argument that those contracts are  
18 “ongoing” (i.e., that these contracts had a term in excess of five years) whereas the AEP and  
19 Wabash contracts did not have a term in excess of five years. That impression is false.

20 **Q. Please summarize your testimony.**

21 A. The AEP and Wabash contracts reflect long-term partial requirements sales. They  
22 are long-term because their terms are greater than one year, which is the demarcation point  
23 between long-term and short-term widely used in the wholesale power markets and consistent

1 with FERC's longstanding practice. There is really no credible support for the argument that  
2 these contracts are not long-term. The AEP and Wabash contracts also reflect "partial  
3 requirements" sales because they are firm contracts for capacity and energy that serve a portion  
4 of the load obligations of the purchaser. This meets the definition of partial requirements sales  
5 commonly used in the wholesale power markets. It is also consistent with the plain meaning of  
6 the term "partial requirements." Although it is not necessary to qualify as a partial requirements  
7 sale, the loads served under these contracts were also included in the analysis that formed the  
8 basis for Ameren Missouri's 2011 IRP filing and in its ongoing system resource planning efforts,  
9 and the reliability of the service under the contracts is unquestionably the same as, or second  
10 only to, the reliability of service provided to Ameren Missouri's own ultimate customers, which  
11 means that these contracts reflect partial requirements service.

12 Finally, it is crystal clear that Ameren Missouri's FAC tariff could not have been based  
13 on the 20-year-old definitions of "long-term" and "requirements service" found on p. 310 of  
14 FERC Form 1, since many of the municipal contracts that all parties agree qualify as long-term  
15 requirements sales contracts do not meet these definitions.

16 Q. Does this conclude your surrebuttal testimony?

17 A. Yes, it does.

In the Matter of the Second Prudence )  
 Review of Costs Subject to the )  
 Commission-Approved Fuel ) Case No. EO-2012-0074  
 Adjustment Clause of Union Electric )  
 Company d/b/a Ameren Missouri. )

[illegible]

1. My name is Jaime Haro. I work in the City of St. Louis, Missouri, and I am employed by Ameren Missouri as Director of Asset Management and Trading.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

Subscribed and sworn to before me this 8<sup>th</sup> day of June, 2012.

NE Julie Donohue - Notary Public  
Notary Seal, State of  
Missouri - St. Louis City  
Commission #09753418  
My Commission Expires 2/17/2013



EXECUTION APPROVAL SCHEDULE



International Swaps and Derivatives Association, Inc.

1994 ISDA CREDIT SUPPORT ANNEX

to the

Master Agreement

dated as of May 1, 2006

between

American Electric Power Service Corporation  
as agent for the AEP Operating Companies ("Party A")

and

Ameren Energy Inc.  
as agent for and on behalf of Union Electric Company d/b/a AmerenUE and Ameren  
Energy Generating Company ("Party B")

Paragraph 13. Elections and Variables

- (a) *Security Interest for "Obligations."* The term "*Obligations*" as used in this Annex includes the following additional obligations:

With respect to Party A: None

With respect to Party B: None

- (b) *Credit Support Obligations*

- (i) *Delivery Amount, Return Amount and Credit Support Amount*

(A) "*Delivery Amount*" has the meaning specified in Paragraph 3(a).

(B) "*Return Amount*" has the meaning specified in Paragraph 3(b).

(C) "*Credit Support Amount*" has the meaning specified in Paragraph 3.

- (ii) *Eligible Collateral.* The following items will qualify as "*Eligible Collateral*" for the party specified:

	Valuation	
	Party A	Party B
	Percentage	
Cash (USD)	[X]	[X]
	100%	
	Schedule JH-S1	
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## EXECUTION APPROVAL SCHEDULE

- (iii) ***Other Eligible Support.*** The following items will qualify as “**Other Eligible Support**” that the indicated party may post to secure its obligations hereunder, as specified.

**For Party A:** Irrevocable letters of credit in the form of attached Exhibit B (or in such other form approved by Party B, in its sole discretion, in writing) (“Letter of Credit”), duly completed and issued, naming Party B as the beneficiary, with expiry date not earlier than 30 days after the date of Transfer of the Letter of Credit to Party B, the issuer of which is an “Eligible LC Bank” (as defined below) on the date of such Transfer.

**For Party B:** Irrevocable letters of credit in the form of attached Exhibit B (or in such other form approved by Party A, in its sole discretion, in writing) (“Letter of Credit”), duly completed and issued, naming Party A as the beneficiary, with expiry date not earlier than 30 days after the date of Transfer of the Letter of Credit to Party A, the issuer of which is an Eligible LC Bank on the date of such Transfer.

“**Eligible LC Bank**” at any time means a commercial bank, operating from an office in the continental United States, acceptable to the party to whose benefit the Letter of Credit is issued, whose general long-term unsubordinated unsecured debt is at such time rated at least “A-” by Standard & Poor’s Ratings Services, a division of The McGraw-Hill Companies, Inc., or an equivalent rating by any successor rating agency thereof (if any) (“**S&P**”), and at least “A3” by Moody’s Investors Service, Inc. or an equivalent rating by any successor rating agency thereof (if any) (“**Moody’s**”); in the event such a commercial bank is rated by only one of S&P or Moody’s, eligibility will be based on the available rating.

(iv) ***Thresholds***

(A) “**Independent Amount**” means with respect to both Party A and Party B: for each Transaction at any time, zero.

(B) “**Threshold**” means with respect to Party A: **USD 20,000,000**; provided however that Party A’s Threshold shall be zero if an Event of Default or Potential Event of Default with respect to Party A has occurred and is continuing; and,

“**Threshold**” means with respect to Party B: **USD 10,000,000**; provided however that Party B’s Threshold shall be zero if an Event of Default or Potential Event of Default with respect to Party B has occurred and is continuing.

(C) “**Minimum Transfer Amount**” means, with respect to both Party A and Party B, **USD 1 (\$1)**.

(D) **Rounding** means that the Delivery Amount will, if a positive number, be rounded up to the nearest integral multiple of **USD 250,000**; and the Return Amount, if a positive number, will be rounded down to the nearest integral multiple of **USD 250,000** or to zero if the Return Amount is less than **USD 250,000**.

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## EXECUTION APPROVAL SCHEDULE

### (c) *Valuation and Timing*

- (i) “**Valuation Agent**” means Party A unless (i) Party A fails to perform its obligations as Valuation Agent under Paragraph 4(c) or Paragraph 6(d) in a timely manner, or (ii) an Event of Default has occurred and is continuing with respect to Party A, in which case Party B is the Valuation Agent.
- (ii) “**Valuation Date**” means each Local Business Day designated as a Valuation Date by notice given by one party to the other no later than the Notification Time on the Local Business Day before the Valuation Date so designated.
- (iii) “**Valuation Time**” means:

- ☐ the close of business in the city of the Valuation Agent on the Valuation Date (for purposes of Paragraph 3) or date of calculation (for purposes of Paragraph 6(d)), as applicable;
- ☒ the close of business in the city of the Valuation Agent on the Local Business Day in that city immediately preceding the Valuation Date (for purposes of Paragraph 3) or date of calculation (for purposes of Paragraph 6(d)), as applicable;

provided, however that the calculations of Value and Exposure will be made as of approximately the same time on the same date.

- (iv) “**Notification Time**” means 1:00 p.m., New York time, on a Local Business Day.

- (d) **Conditions Precedent and Secured Party’s Rights and Remedies.** For purposes of Paragraph 8(a) and Paragraph 8(b), each Termination Event will constitute a “**Specified Condition**” with respect to a Pledgor or a Secured Party, respectively, if the Pledgor or Secured Party, respectively, fails to pay when due any amount payable by it in connection with an Early Termination Date designated in connection with that Termination Event. For all other purposes of this Annex, each Termination Event specified below with respect to a party will be a “Specified Condition” for that party:

	Party A	Party B
Illegality	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tax Event	<input type="checkbox"/>	<input type="checkbox"/>
Tax Event Upon Merger	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Credit Event Upon Merger	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Additional Termination Event(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### (e) *Substitution*

- (i) “**Substitution Date**” has the meaning specified in Paragraph 4(d)(ii).
- (ii) **Consent.** If specified here as applicable, then the Pledgor must obtain the Secured Party’s consent for any substitution pursuant to Paragraph 4(d):

Applicable.

## EXECUTION APPROVAL SCHEDULE

### (f) *Dispute Resolution*

- (i) ***“Resolution Time”*** means 1:00 p.m. New York time on the Local Business Day following the date the Disputing Party gives notice of a dispute pursuant to Paragraph 5.
- (ii) ***Value.*** For the purpose of Paragraphs 5(i)(C) and 5(ii), the value of Posted Credit Support will be calculated as follows:

***Cash and Letters of Credit.*** For purposes of Paragraph 5, (i) the face value of cash collateral and (ii) for Letters of Credit, an amount equal to the value as calculated in Paragraph 13(j)(i).

- (iii) ***Dispute Resolution.*** Paragraph 5(i)(B) of the Annex is amended by replacing the words: “then the Valuation Agent’s original calculations will be used;” with the words: “the parties will appoint a mutually acceptable leading dealer that is not an Affiliate of either party in the relevant market to make such determination.”
- (iv) ***Alternative.*** The provisions of Paragraph 5 will apply, except to the following extent: pending the resolution of a dispute, Transfer of the undisputed Value of Eligible Credit Support or Posted Credit Support involved in the relevant demand will be due as provided in Paragraph 5 if the demand is made at or before the Notification Time but will be due on the second Local Business Day after the demand if the demand is made after the Notification Time.

### (g) *Holding and Using Posted Collateral*

- (i) ***Eligibility to Hold Posted Collateral; Custodians.*** Party A and its Custodian will be entitled to hold Posted Collateral pursuant to Paragraph 6(b); *provided* that the following conditions applicable to it are satisfied:
  - (1) Party A is not a Defaulting Party or an Affected Party in connection with a Specified Condition, neither a Specified Condition nor an Event of Default with respect to Party A has led to the designation of an Early Termination Date; provided, however, that in the case of any such Specified Condition, the right to hold Posted Collateral will be reinstated immediately when the other party has verified that the Specified Condition no longer exists, if an Early Termination Date has not been designated or, if an Early Termination Date has been designated in connection with the Specified Condition, once the Affected Party has discharged its payment obligations, if any under Section 6 of this Agreement in connection with the early termination, if fewer than all Transactions are Affected Transactions.
  - (2) Posted Collateral may be held only in the following jurisdiction(s):

continental United States of America
  - (3) The Custodian for Party A: The unsecured and unsubordinated long-term debt or deposit obligations of the Custodian is rated at least “A-” by S&P or at least “A3” by Moody’s.

Initially, the **Custodian** for Party A is: Not applicable

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## EXECUTION APPROVAL SCHEDULE

Party B and its Custodian will be entitled to hold Posted Collateral pursuant to Paragraph 6(b); provided, however that the following conditions applicable to it are satisfied:

- (1) Party B has a Credit Rating from either S&P or Moody's and the lowest Credit Rating for either the party or its Credit Support Provider, as the case may be, is BBB- or higher from S&P, and Baa3 or higher from Moody's. Party B is not a Defaulting Party or an Affected Party in connection with a Specified Condition, neither a Specified Condition nor an Event of Default with respect to Party B has led to the designation of an Early Termination Date; provided, however, that in the case of any such Specified Condition, the right to hold Posted Collateral will be reinstated immediately when the other party has verified that the Specified Condition no longer exists, if an Early Termination Date has not been designated or, if an Early Termination Date has been designated in connection with the Specified Condition, once the Affected Party has discharged its payment obligations, if any under Section 6 of this Agreement in connection with the early termination, if fewer than all Transactions are Affected Transactions.
- (2) Posted Collateral may be held only in the following jurisdiction(s):  
  
continental United States of America
- (3) The Custodian for Party B: The unsecured and unsubordinated long-term debt or deposit obligations of the Custodian is rated at least "A-" by S&P or at least "A3" by Moody's.

Initially, the **Custodian** for Party B is: Not applicable

### (ii) *Use of Posted Collateral*

The provisions of Paragraph 6(c) will apply to Party A and will not apply to Party B.

### (h) *Distributions and Interest Amount*

- (i) **Interest Rate.** The "**Interest Rate**" will be, for any day, the "Federal Funds (Effective)" rate in effect for such day, as published in the most recent weekly statistical release designated as H.15(519), or any successor publication, published by the Board of Governors of the Federal Reserve System minus an interest rate spread of 0.25% per annum.
- (ii) **Transfer of Interest Amount.** Upon the Pledgor's written request as provided under Section 12, the Transfer of Interest Amount for the previous month will be made on the following Local Business Day if notification is received prior to the Notification Time provided in Paragraph 13(c)(iv), or on the second Local Business Day if notification is received after the Notification Time provided in Paragraph 13(c)(iv), and on any Local Business Day that Posted Collateral in the form of Cash is Transferred to the Pledgor pursuant to Paragraph 3(b).
- (iii) **Alternative to Interest Amount.** The provisions of Paragraph 6(d)(ii) will apply, unless otherwise specified here:

## EXECUTION APPROVAL SCHEDULE

**Delivery Amount.** If Transfer of an Interest Amount (or any portion thereof) to a Pledgor on any day would result in or increase a Delivery Amount (treating that day as a Valuation Date, as provided in Paragraph 6(d)(ii)) but the Pledgor would nonetheless have no obligation to make a Transfer pursuant to Paragraph 3(a) on that day if it were a Valuation Date (because the Delivery Amount is lower than the Pledgor's Minimum Transfer Amount or otherwise) the Secured Party will be required to Transfer that Interest Amount (or portion thereof) to the Pledgor, notwithstanding anything to the contrary in Paragraph 6(d)(ii).

- (i) **Additional Representations.** Party A and Party B represent to each other (which representations will be deemed to be repeated as of each date on which Party A or Party B, as the Pledgor, Transfers Eligible Collateral) that their respective representations set forth in Section 3 of this Agreement are true and correct.
- (j) **Other Eligible Support and Other Posted Support**
  - (i) **"Value"** with respect to Other Eligible Support and Other Posted Support at any time means, with respect to any Letter of Credit meeting the criteria set forth in Paragraph 13(b)(iii), the amount then available to be drawn by the Secured Party under the Letter of Credit; provided, that the Value of the Letter of Credit shall be zero from and after the occurrence of a Letter of Credit Termination Event as defined below.

A "Letter of Credit Termination Event" shall mean the occurrence of any of the following events:

- a) the issuer of such Letter of Credit shall fail to maintain a Credit Rating of at least "A-" by S&P or "A3" by Moody's;
- b) the issuer of such Letter of Credit disaffirms, disclaims, repudiates, or rejects in whole or in part, or challenges the validity of, such Letter of Credit;
- c) the Letter of Credit expires or terminates or ceases to be in full force and effect at any time during the term of any outstanding Transaction;
- d) any event analogous to an event specified in Section 5(a)(vii) of this Agreement occurs with respect to the issuer of such Letter of Credit; or
- e) twenty (20) Local Business Days prior to the expiration or termination date of a Letter of Credit, such Letter of Credit is not extended or replaced with a Letter of Credit for an amount at least equal to that of the Letter of Credit being replaced.

**"Credit Rating"** means, with respect to any entity, on any date of determination, the respective ratings then assigned to such entity's unsecured, senior long-term debt or deposit obligations (not supported by third party credit enhancement) by S&P, Moody's or other specified rating agency or agencies, or if such entity does not have a rating for its unsecured, senior long-term debt or deposit obligations, then the rating assigned to such entity as its "corporate credit rating" or Issuer Credit

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## EXECUTION APPROVAL SCHEDULE

Rating by either S&P or Moody's. If such ratings are assigned by both S&P and Moody's, then its Credit Rating will be the lower of such ratings.

- (ii) **"Transfer"** with respect to Other Eligible Support and Other Posted Support means, with respect to Letters of Credit meeting the criteria set forth in Paragraph 13(b)(iii), (a) for purposes of Paragraph 3(a), (i) delivery of the duly executed Letter of Credit to the Secured Party, at the address specified below, together with evidence of the authority, incumbency and specimen signature of each person authorized to execute the Letter of Credit or any amendment thereto on behalf of its issuer, or (ii) delivery to the Secured Party of an amendment to such Letter of Credit, in form and substance satisfactory to the Secured Party, extending the term or increasing the amount available to the Secured Party thereunder, but only if the issuer of the Letter of Credit is an Eligible LC Bank at the time of the amendment, and (b) for purposes of Paragraph 3(b), return of the Letter of Credit by the Secured Party to the Pledgor, at the address specified below, or agreement by the Secured Party to an amendment of the Letter of Credit, in form and substance satisfactory to the Secured Party, reducing the amount available to the Secured Party thereunder.
- (k) ***Demands and Notices.*** All demands, specifications and notices under this Annex will be made pursuant to Part 4 of the Schedule to this Agreement, unless otherwise specified here:

With respect to Party A:

Address: American Electric Power Service Corporation  
155 W Nationwide Blvd, Ste 500  
Columbus, OH 43215  
Attention: Credit Risk Management  
Facsimile No.: (614) 583-1604  
Telephone No.: (614) 583-6728

- (l) ***Addresses for Transfers***

Party A and Party B:

Posted Collateral for a party ("X") in the form of cash shall be delivered to the commercial bank or custodial institution designated in a written notice from time to time by X to the other party.

With respect to Letters of Credit: As provided under the Demands and Notices Section of this Paragraph 13.

- (m) ***Other Provisions***

- (i) ***Distributions.*** The following provisions shall be added to Paragraph 6(d) as follows:

- (iii) **Certain Distributions Received.** If a Secured Party receives or is deemed to receive Distributions on a day that is not a Local Business Day, or after its close of business on a Local Business Day, it will Transfer the

## EXECUTION APPROVAL SCHEDULE

Distributions to the Pledgor on the following Local Business Day, subject to Paragraph 4(a), but only to the extent contemplated in Paragraph 6(d)(i) in connection with Distributions received or deemed received on a Local Business Day.

- (iv) **Transfer of Distributions.** If Transfer of a Distribution (or any portion thereof) to a Pledgor on any day would result in, or increase, a Delivery Amount (treating that day as a Valuation Date, as provided in Paragraph 6(d)(i)), but the Pledgor would nonetheless have no obligation to make a Transfer pursuant to Paragraph 3(a) on that day if it were a Valuation Date (because the Delivery Amount is lower than the Pledgor's Minimum Transfer Amount or otherwise) the Secured Party will be required to Transfer that Distribution (or portion thereof) to the Pledgor, notwithstanding anything to the contrary in Paragraph 6(d)(i).
- (ii) **Modification of Paragraph 4(b) of the Annex.** Paragraph 4(b) of the Annex is amended to read, in its entirety, as follows:
  - “(b) **Transfer Timing.** Subject to Paragraphs 4(a) and 5 and unless otherwise specified, (i) if a demand for Transfer of Eligible Credit Support or Posted Credit Support is made by the Notification Time, then the Transfer of Eligible Credit Support or Posted Credit Support will be completed prior to 6:00 p.m., New York time, on the Local Business Day following the Local Business Day on which the demand is made, (ii) if a demand for Transfer of Eligible Credit Support or Posted Credit Support is made by the Notification Time with respect to a foreign currency exchange Transaction, such Transfer shall be completed prior to 6:00 p.m., New York time, on the third (3rd) Local Business Day following the Local Business Day on which the demand is made and (iii) if a demand for Transfer of Eligible Credit Support or Posted Credit Support is made subsequent to the Notification Time, then the relevant Transfer will be made in accordance with the rules provided in the immediately preceding subparagraphs (i) and (ii), except that the demand will be treated as if made on the Local Business Day following the day the demand was actually made.”
- (iii) **Taxes in Connection with Amounts Paid Under the Credit Support Annex.** Notwithstanding anything to the contrary in this Agreement, neither party makes any Payer Tax Representation referred to in Section 3(e) of this Agreement with respect to any Interest Amount it is required to Transfer under this Annex, and neither party will be entitled to designate an Early Termination Date on the ground of any Tax Event resulting from the party's obligation to pay additional amounts in respect of Indemnifiable Taxes imposed with respect to any such Interest Amount, Distributions, or late payment fees.
- (iv) **Rights and Remedies under Paragraph 8(a).** The Secured Party will be entitled to exercise the rights and remedies provided for in Paragraph 8(a) if the Pledgor fails to pay when due any amount payable by it under Section 6 of this Agreement in connection with a Termination Event, even if the Pledgor is not the Affected Party.



## EXECUTION APPROVAL SCHEDULE

- (v) **Set-off.** For purposes of Paragraphs 2 and 8(a)(iii) of this Annex, the reference to any amount payable under Section 6 of this Agreement in the definition of "Set-off" in this Agreement shall be deemed a reference to any amount payable with respect to any Obligation, as described in Paragraph 8(a)(iii) of this Annex.

- (vi) **Additional Provisions Relating Primarily to Letters of Credit.**

- (1) **Failure to Transfer Other Eligible Support or Other Posted Support.**

Paragraph 7(i) of this Annex is hereby modified to apply to failures to Transfer Other Eligible Support and Other Posted Support, as well as the items listed therein.

- (2) **Drawings on Letters of Credit.** The Secured Party shall have the right to draw on a Letter of Credit held by it as Other Posted Support in the event that at the time of such draw there shall be satisfied the conditions specified in the form of Letter of Credit attached as Exhibit B (or, to the extent that the Letter of Credit is in a different form, in the event that the conditions to drawing specified in such Letter of Credit are satisfied). If the Secured Party makes a draw on such a Letter of Credit, the Secured Party shall apply the proceeds of such draw consistent with the requirements, if any, set forth in the drawing documentation.

- (3) **Event of Default.** The word "or" at the end of subparagraph (ii) of Paragraph 7 shall be deleted, and the period at the end of subparagraph (iii) of Paragraph 7 shall be deleted and replaced with a semicolon. Paragraph 7 is hereby amended by adding at the end thereof the following subparagraphs (iv) and (v):

- (iv) the issuer of a Letter of Credit provided by such party to the other party fails to honor a drawing under the Letter of Credit in accordance with its terms; or
    - (v) the issuer of the Letter of Credit provided by such party to the other party fails to comply with or perform its obligations under such Letter of Credit and such failure continues after the lapse of any applicable grace period;

provided, however, that (iv) and (v) shall not be an Event of Default with respect to a Letter of Credit after the time such Letter of Credit is required to be canceled or returned to the party providing such Letter of Credit in accordance with the terms of this Annex or other Eligible Credit Support meeting the requirements of this Agreement is provided to the other party.

{signatures appear on the following page}

IN WITNESS WHEREOF, the parties have executed this Credit Support Annex by their duly authorized officers as of the date hereof.

**American Electric Power Service Corporation,  
as agent for the AEP Operating Companies**

By: 

Name: Todd D. Busby

Title: Vice President

Date: May 17, 2006



**Ameren Energy Inc.,  
as agent for and on behalf of Union Electric Company d/b/a  
AmerenUE and Ameren Energy Generating Company**

By: 

Name: Andrew M. Serri

Title: President

Date: May 23, 2006

APPROVED  
Credit  


 APPROVED  
Legal  


APPROVED  
Contract  
Admin  


Schedule JH-S1  
HIGHLY CONFIDENTIAL



International Swaps and Derivatives Association, Inc.

**SCHEDULE**

**to the**

**Master Agreement**

**(Multicurrency - Cross Border)**

**dated as of May 1, 2006**

**between**

**American Electric Power Service Corporation  
as agent for the AEP Operating Companies ("Party A")  
and**

**Ameren Energy Inc.  
as agent for and on behalf of Union Electric Company d/b/a AmerenUE and Ameren  
Energy Generating Company ("Party B")**

In this Agreement:

**Part 1**

**Termination Provisions**

- (a) **"Specified Entity"** means in relation to Party A and Party B for the purpose of:
- |                    |      |
|--------------------|------|
| Section 5(a)(v),   | None |
| Section 5(a)(vi),  | None |
| Section 5(a)(vii), | None |
| Section 5(b)(iv),  | None |
- (b) **"Specified Transaction"** will have the meaning specified in Section 14 of this Agreement, except that such term is amended by adding in the eighth line after "currency option" the words ", agreement for the purchase, sale or transfer of any Commodity or any other commodity trading transaction." For this purpose, the term "Commodity" means any tangible or intangible commodity of any type or description (including, without limitation, weather, coal, electric power, electric power capacity, petroleum, natural gas, natural gas liquids, and byproducts thereof).
- (c) The **"Cross Default"** provisions of Section 5(a)(vi), as amended, will apply to Party A and to Party B.
- (1) Section 5(a)(vi) is amended by deleting in the seventh line thereof ", or becoming capable at such time of being declared,".

(2) The term "Cross Default" shall exclude any default that results solely from: (1) wire transfer difficulties; (2) an administrative or operational error or omission (so long as sufficient funds are available); or (3) the general lack of availability, by reason of exchange controls or other similar government action, of the currency in which the Specified Indebtedness is denominated. The preceding sentence shall apply only if (A) funds were available to such party, any Credit Support Provider of such party, or any applicable Specified Entity of such party, as the case may be, to enable the party to make the relevant payment when due, and (B) the party makes the relevant payment within the earlier of three (3) Local Business Days after such transfer difficulties have been corrected, the error or omission has been discovered, or such currency becomes available.

(3) **"Specified Indebtedness"** shall have the meaning specified in Section 14 of this Agreement.

(4) **"Threshold Amount"** means

(i) **USD 100,000,000** (or its equivalent in any other currencies) in relation to American Electric Power Company, Inc. and the AEP Operating Companies, as defined in Part 5(u) in this Schedule; and

(ii) **USD 50,000,000** (or its equivalent in any other currencies) in relation to Union Electric Company d/b/a Ameren-UE and Ameren Energy Generating Company.

(d) The **"Credit Event Upon Merger"** provisions of Section 5(b)(iv), as amended herein, will apply to Party A and Party B.

Section 5(b)(iv) is deleted in its entirety and replaced with the following:

**"Credit Event Upon Merger.** If "Credit Event Upon Merger" is specified in the Schedule as applying to the party, such party ("X"), any Credit Support Provider of X or any applicable Specified Entity of X consolidates or amalgamates with, or merges with or into, or transfers all or substantially all its assets to, *or reorganizes, reincorporates, or reconstitutes into or as* another entity and such action does not constitute an event described in Section 5(a)(viii) but the creditworthiness of the resulting, surviving or transferee entity is materially weaker *as determined by commercially reasonable judgment under then current market conditions* than that of X, such Credit Support Provider or such Specified Entity *thereof*, as the case may be, immediately prior to such action (and, in such event, X or its successor or transferee, as appropriate, will be the Affected Party); *provided, however, that the foregoing action or event shall not constitute a Termination Event so long as in connection with or after such action or event X or its successor or transferee provides (or causes to be provided) to the other party ("Y") within two (2) Local Business Days of Y's written demand therefor Eligible Credit Support in an amount satisfactory to Y in its sole discretion; or"*

(e) The **"Automatic Early Termination"** provision of Section 6(a) will not apply to Party A or to Party B; provided, however, where the Event of Default specified in Section 5(a)(vii)(1), (3), (4), (5), (6) or to the extent analogous thereto, or (8) is governed by a system of law which does not permit termination to take place after the occurrence of the

relevant Event of Default, then the Automatic Early Termination provision of Section 6(a) will apply to Party A and to Party B.

(f) **Payments on Early Termination.** For the purpose of Section 6(e) of this Agreement:

- (1) Market Quotation will apply, and
- (2) the Second Method will apply.

(g) **"Termination Currency"** means United States Dollars.

(h) **"Additional Termination Event"**. None.

## Part 2

### Tax Representations

(a) **Payer Tax Representation.** For the purpose of Section 3(e) of this Agreement, Party A and Party B make the following representation:

It is not required by any applicable law, as modified by the practice of any relevant governmental revenue authority, of any Relevant Jurisdiction to make any deduction or withholding for or on account of any Tax from any payment (other than interest under Section 2(e), 6(d)(ii) or 6(e) of this Agreement) to be made by it to the other party under this Agreement. In making this representation, it may rely on:

(i) the accuracy of any representations made by the other party pursuant to Section 3(f) of this Agreement;

(ii) the satisfaction of the agreement contained in Section 4(a)(i) or 4(a)(iii) of this Agreement and the accuracy and effectiveness of any document provided by the other party pursuant to Section 4(a)(i) or 4(a)(iii) of this Agreement; and

(iii) the satisfaction of the agreement of the other party contained in Section 4(d) of this Agreement;

*provided, however, that it shall not be a breach of this representation where reliance is placed on clause (ii) above, and the other party does not deliver a form or document under Section 4(a)(iii) by reason of material prejudice to its legal or commercial position.*

(b) **Payee Tax Representation.** For the purposes of Section 3(f), Party A and Party B make the representations specified below:

- (i) The following representation will apply to American Electric Power Service Corporation:

American Electric Power Service Corporation is a corporation created or organized under the laws of the State of New York. American Electric Power Service Corporation is a U.S. person within the meaning of Section 7701 of the Internal Revenue Code and its U.S. taxpayer identification number is 13-4922641.

- (ii) The following representation will apply to Party B:

Party B, Union Electric Company is a corporation created or organized under the laws of the State of Missouri, and Ameren Energy Generating Company is a corporation created or organized under the laws of the State of Illinois; both entities of Party B are residents of the United States of America within the meaning of Section 7701 of the Internal Revenue Code and their U.S. taxpayer identification numbers are Union Electric Company, 43-0559760 and Ameren Energy Generating Company, 37-1395586.

### Part 3

#### Documents to be delivered

For the purpose of Section 4(a)(i) and (ii):

- (a) Tax forms, documents, or certificates to be delivered:

Party required to deliver document	Form/Document/Certificate	Date by which to be delivered
Party A and Party B	Any document required or reasonably requested to allow the other party to make payments under the Agreement without any deduction or withholding for or on the account of any Tax or with such deduction or withholding at a reduced rate.	Promptly after the earlier of (i) reasonable request by either party or (ii) learning that such form or document is required.

- (b) Other documents to be delivered are:

Party required to deliver document	Form/Document/Certificate	Date by which to be delivered	Covered by Section 3(d) Representation
Party A and Party B	Certified copy of Certificate of Authority, Incumbency and Specimen Signatures and Resolutions adopted by the Board of Directors, or relevant committee of the Board of Directors, of Party A or Party B (as applicable), authorizing the execution, delivery and performance of this Agreement and the Transactions contemplated hereunder.	As of the execution of this Agreement.	Yes

Party required to deliver document	Form/Document/Certificate	Date by which to be delivered	Covered by Section 3(d) Representation
Party A and Party B	Annual Consolidated Financial Statements and most recent annual report and Form 10-K of American Electric Power Company, Inc. in the case of Party A, and of Party B and any Credit Support Provider for Party B, in the case of Party B.	Promptly upon request after completion by Certified Public Accountant.	Yes
Party A and Party B	Quarterly Consolidated Financial Statements of American Electric Power Company, Inc. in the case of Party A, and Party B and any Credit Support Provider for Party B.	Promptly upon request after completion.	Yes
Party A and Party B	Statement of Generic Risks Associated with Over-the-Counter Derivative Transactions	Upon the execution of this Agreement.	Yes

#### Part 4

##### Miscellaneous

(a) **Addresses for Notices.** For the purposes of Section 12(a) of this Agreement Address for notices or communications to Party A for all purposes (other than Confirmations):

Address: American Electric Power Service Corporation  
155 W Nationwide Blvd, Ste 500  
Columbus, OH 43215  
Attention: Financial Contract Administration  
Facsimile No.: (614) 583-1606  
Telephone No.: (614) 583-6114

##### Confirmations:

Address: American Electric Power Service Corporation  
155 W Nationwide Blvd, Ste 500  
Columbus, OH 43215  
Attention: Confirmations – 4<sup>th</sup> Floor  
Facsimile No.: (614) 583-1605  
Telephone No.: (614) 583-6125

##### Wire Payment Instructions for power transactions:

For the account of: American Electric Power Service Corporation  
American Electric Power – System Sales

Citibank N.A.  
New York, NY  
ABA # 021-000-089  
Account # 4071-9917

Wire Payment Instructions for gas transactions:

For the account of: American Electric Power Service Corporation  
Citibank N.A.  
New York, NY  
ABA # 021-000-089  
Account # 3055-1102

Address for notices or communications to Party B for all purposes:

Address: Ameren Energy, Inc.  
1901 Chouteau Avenue – MC 950  
St. Louis, MO 63103  
Attention: Contract Administration  
Facsimile No.: 314-613-9015  
Telephone No.: 314-613-9196

Wire Payment Instructions:

For the account of: Bank of America, N.A.  
ABA # 111000012  
Account # 3750965120

(b) **Notices.** Subparagraph (ii) of Section 12(a) of this Agreement shall not apply.

(c) **Process Agent.** For the purpose of section 13(c):

Party A appoints as its Process Agent: Not applicable.

Party B appoints as its Process Agent: Not applicable.

(d) **Offices.** The provisions of Section 10(a) will apply to this Agreement.

(e) **Multibranch Party.** For the purpose of Section 10(c) of this Agreement.

Party A is not a Multibranch Party.

Party B is not a Multibranch Party.

(f) **Calculation Agent.** The Calculation Agent is Party A.

(g) **Credit Support Document.** Details of any Credit Support Document.

Party A and Party B: The ISDA Credit Support Annex attached hereto.



(h) **Credit Support Provider.**

(i) Party A: None.

(ii) Party B: None.

(i) **GOVERNING LAW. THIS AGREEMENT WILL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE INTERNAL LAW OF THE STATE OF NEW YORK, WITHOUT REFERENCE TO CHOICE OF LAW DOCTRINE, BUT GIVING EFFECT TO SECTIONS 5-1401 AND 5-1402 OF NEW YORK'S GENERAL OBLIGATIONS LAW. EACH PARTY EXPRESSLY ACKNOWLEDGES THAT NEW YORK LAW BEARS RELATION TO THIS AGREEMENT AND ALL TRANSACTIONS SUBJECT TO THIS AGREEMENT.**

(j) **Netting of Payments.** Subparagraph (ii) of Section 2(c) of this Agreement will not apply.

(k) **"Affiliate"** shall mean "None" with respect to Party A, except for the purpose of Section 6(f) of this Agreement (Set-Off), where Affiliate will have the meaning specified in Section 14 of this Agreement

**"Affiliate"** shall have the meaning specified in Section 14 with respect to Party B.

## **Part 5**

### **Other Provisions**

(a) **Interpretation.**

(1) This Agreement, each Confirmation, and each Transaction are subject to the 2000 ISDA Definitions (the "Swap Definitions"), the 1993 ISDA Commodity Derivatives Definitions, and the 2000 Supplement thereto (the "Commodity Definitions") each as published by the International Swaps and Derivatives Association, Inc. (collectively the "ISDA Definitions"). The ISDA Definitions are incorporated by reference herein, and made part of, this Agreement and each Confirmation as if set forth in full in this Agreement and such Confirmations. Unless otherwise specified in a Confirmation, any capitalized terms used herein and not otherwise defined herein shall have the respective meanings ascribed to them in the Swap Definitions, and the Commodity Definitions (except that references to "Swap Transactions" in the definitions will be deemed to be references to "Transactions"). In the event of any inconsistency between the provisions of the Swap Definitions and the Commodity Definitions, the Commodity Definitions will prevail. In the event of any inconsistency between the provisions of this Agreement and the ISDA Definitions, this Agreement will prevail. In the event of any inconsistency between the provisions of the Credit Support Documents, if any, and the ISDA Definitions, the Credit Support Documents will prevail. Subject to Section 1(b) of this Agreement, in the event of any inconsistency between the provisions of any Confirmation and this Agreement or the ISDA Definitions, the Confirmation will

prevail for the purpose of the relevant Transaction; provided however, a Confirmation may not amend or conflict with any provisions of this Agreement regarding Events of Default, Termination Events, Set-off or Disruption Fallbacks; except for the Disruption Fallbacks in respect of weather related financial transactions which shall be governed by the fallback methodology provided in the Confirmation.

- (2) **Existing Transactions.** In the event that the parties have entered into Transactions prior to the date of this Agreement, the parties agree that all such Transactions shall be deemed to have been entered into pursuant to this Agreement. To the extent the terms herein conflict with the terms of the Confirmations governing the prior Transactions, the terms of this Agreement shall apply.

(b) **Modifications to the Agreement.**

- (i) The condition precedent in Section 2(a)(iii)(1) does not apply to a payment and delivery owing by a party if the other party shall have satisfied in full all its payment obligations under Section 2(a)(i) of this Agreement and shall at the relevant time have no future payment or delivery obligations, whether absolute or contingent, under Section 2(a)(i).
- (ii) Section 2(d)(i)(4) is hereby amended by adding the following subsection (C):  
“, or (C) Y's consolidation or amalgamation with, or merger with or into, or transfer of all or substantially all of its assets to, or reorganization, reincorporation, or reconstitution in or as, another entity, or entering into any agreement providing for any of the actions described above.”
- (iii) Section 4(c) is hereby amended by replacing the words "to which it may be subject" with the words "to which it is subject."
- (iv) Section 5(a)(iii)(1) is hereby amended by adding after the words "Credit Support Document" the following: "including the breach by the party, or any Credit Support Provider, of any representation, warranty or covenant set forth in any Credit Support Document."
- (v) Section 5(a)(iii)(3) is hereby amended by adding in the first line thereof after the word "rejects," the following: "or amends or modifies without the consent of the other party,".
- (vi) Section 5(a)(vii) is amended by deleting the word "or" at the end of Section 5(a)(vii), the period at the end of Section 5(a)(viii) is deleted and replaced by “; or” and the following new Section 5(a)(ix) is added:

**“Failure to Provide Adequate Assurance”.** The failure of either party (the “Failing Party”) to provide Adequate Assurance to the other party (the “Demanding Party”) within forty-eight (48) hours, but at least one (1) Business Day, of a written request by the Demanding Party when the request is based on the Demanding Party’s good faith belief that the ability of the

Failing Party to perform its obligations is materially impaired under this Agreement.

For purposes of this section, “**Adequate Assurance**” means any financial security in a form and amount commercially reasonably satisfactory to the Demanding Party, provided further, that if such financial security is in a form which would qualify as Eligible Credit Support in the Credit Support Annex, if one exists, then upon receipt by Demanding Party, such financial security shall be treated as if it is Posted Collateral or Posted Credit Support; provided, however, such Adequate Assurance shall not be included in the calculation of Delivery Amount or Return Amount as defined in Paragraph 3.

- (vii) Section 5(a)(vii)(4) is hereby modified by deleting, following the word “liquidation” in line 9, the clause beginning with “and, in the case of” and ending with the word “thereof” in line 13; and in clause (vii)(7): deleting, following the word “assets” in line 19, the clause beginning with “and such secured party” and ending with the word “thereafter” in line 21.
- (viii) The introductory paragraph of Section 5(a)(viii) is hereby amended by adding the words "or reorganizes, reincorporates or reconstitutes into or as," in the third line thereof after the words "its assets to," and by adding the words ", reorganization, reincorporation, reconstitution" in the third line thereof after the word "merger."
- (ix) Section 5(b)(ii) is hereby deleted in its entirety and replaced with the following (italicized text reflects modifications from the ISDA Master Agreement):

**Tax Event.** Due to (x) any action taken by a taxing authority, or brought in a court of competent jurisdiction, on or after the date on which a Transaction is entered into (regardless of whether such action is taken or brought with respect to a party to this Agreement) or (y) a Change in Tax Law, the party (which will be the Affected Party) will, or there is a substantial likelihood, *in the written opinion of its counsel*, that it will, on the next succeeding Scheduled Payment Date (1) be required to pay to the other party an additional amount in respect of an Indemnifiable Tax under Section 2(d)(i)(4) (except in respect of interest under Section 2(e), 6(d)(ii) or 6(e)) or (2) receive a payment from *the other party or a Credit Support Provider of such party from* which an amount is required to be deducted or withheld for or on account of a Tax (except in respect of interest under Section 2(e), 6(d)(ii) or 6(e)) and no additional amount is required to be paid in respect of such Tax under Section 2(d)(i)(4) (other than by reason of Section 2(d)(i)(4)(A) or (B) or (C)); *and neither party shall have any right to invoke this Section 5(b)(ii) based on any payments made or required to be made by a Credit Support Provider of such party;*

- (x) Section 5(b)(iii) is hereby amended by adding the words "or (C)" in the sixth line thereof after the words "Section 2(d)(i)(4)(A) or (B)" and by adding the words "or reorganizing, reincorporating, or reconstituting into or as," in the eighth line thereof after the words "its assets to,".

- (xi) Section 6(a) is hereby amended by adding the following after the last line thereof:

Notwithstanding the terms of Section 5 and 6 of this Agreement, if at any time and so long as one of the parties to this Agreement ("X") shall have satisfied in full all of its payment and delivery obligations under Section 2(a)(i) of this Agreement and shall at the time have no future payment or delivery obligation, whether absolute or contingent, under such Section, then unless the other party ("Y") is required pursuant to appropriate proceedings to return to X or otherwise returns to X upon demand of X any portion of any such payment or delivery, then (a) the occurrence of an event described in Section 5(a) of this Agreement with respect to X, any Credit Support Provider of X or any Specified Entity of X shall not constitute an Event of Default with respect to X as the Defaulting Party and (b) Y shall be entitled to designate an Early Termination Date pursuant to Section 6 of this Agreement only as a result of the occurrence of (i) an Event of Default set forth in Section 5(a)(v) of this Agreement with respect to X as the Defaulting Party or (ii) a Termination Event set forth in (A) either Section 5(b)(i) or 5(b)(ii) of this Agreement with respect to Y as the Affected Party or (B) Section 5(b)(iii) of this Agreement with respect to Y as the Burdened Party.

- (xii) Section 6(c) is amended by adding the following new paragraph (iii):

Notwithstanding the foregoing, the Non-defaulting Party shall not be obligated to terminate and liquidate Transactions to the extent that, in the good faith opinion of the Non-defaulting Party, (i) such termination and liquidation is not permitted under applicable law or (ii) the Non-defaulting Party cannot enter into or liquidate offsetting transactions (including, without limitation, Specified Transactions) in a commercially reasonable manner or at commercially reasonable prices. In addition, the Non-defaulting Party may, at its election, take a reasonable amount of time to complete any aspect of the termination and liquidation.

- (xiii) The definition of the term "**Tax**" in Section 14 is hereby amended by adding in the third line thereof after the word "Agreement" and before the word "other" the words "or any Credit Support Document."
- (xiv) The definition of the term "**Indemnifiable Tax**" in Section 14 is hereby amended by adding in the second line thereof after the word "Agreement" and before the word "but" the words "or any Credit Support Document."

- (c) **Additional Representations.** Section 3 of the Agreement is hereby amended by adding at the end thereof the following subsections (g) through (l):

(g) **Eligible Swap Participant.** It is an "eligible swap participant" within the meaning of 17 C.F.R. Section 35.1(b)(2).

(h) **Eligible Contract Participant/Eligible Commercial Entity.** It is (i) an "eligible contract participant" as defined in Section 1a(12) of the Commodity Exchange Act, as amended, or (ii) a "financial institution" as defined in Section 3(a)(1) of the Securities Exchange Act of 1934, as amended.

amended (7 U.S.C. § 1a(12) (2000)) and (ii) as to transactions to be entered into on "electronic trading facilities", an "eligible commercial entity" as defined in Section 101(11) of the Commodity Futures Modernization Act of 2000 (7 U.S.C.A. Section 1a(11)(West Supp. 2001)).

(i) **Relationship Between the Parties.** Each party will be deemed to represent to the other party on the date on which it enters into a Transaction that (absent a written agreement between the parties that expressly imposes affirmative obligations to the contrary for that Transaction):

(i) **Non-Reliance.** American Electric Power Service Corporation is acting as agent for disclosed principals and Ameren Energy Inc. is acting as agent for disclosed principals. In either case the party has made its own independent decisions to enter into that Transaction, and as to whether that Transaction is appropriate or proper for it, based upon its own judgment and upon advice from such advisers as it has deemed necessary.

(ii) **Evaluating and Understanding.** It is capable of assessing the merits of and understanding (on its own behalf or through independent professional advice) and understands and accepts the terms, conditions and risks of that Transaction. It is also capable of assuming, and assumes, the risks of that Transaction.

(iii) **Status of Parties.** The other party is not acting as a fiduciary for, or an advisor to it, with respect to that Transaction.

(j) **Swap Agreement.** Except to the extent it is provided to the contrary in the Power Annex, the parties acknowledge and agree that all Transactions constitute "swap agreements" within the meaning of the United States Bankruptcy Code.

(k) **Forward Contract.** The parties acknowledge and agree that all Transactions constitute "forward contracts" and that each of the parties to this Agreement is a "forward contract merchant" within the meaning of the United States Bankruptcy Code.

(l) **Standardization, Creditworthiness, and Transferability.** The material economic terms of the Agreement, any Credit Support Document to which it is a party, and each Transaction have been individually tailored and negotiated by it; it has received and reviewed financial information concerning the other party and has had a reasonable opportunity to ask questions of and receive answers and information from the other party concerning such other party, this Agreement, such Credit Support Document, and such Transaction; the creditworthiness of the other party was a material consideration in its entering into or determining the terms of this Agreement, such Credit Support Document, and such Transaction; and the transferability of this Agreement, such Credit Support Document, and such Transaction is restricted as provided herein and therein.

(d) The following new Section 6(f) **Set-Off** is added to this Agreement:

"Without affecting the provisions of this Agreement requiring the calculation of certain net payment amounts, all payments under this Agreement will be made without set-off or counterclaim; provided, however, that upon the designation of any Early Termination Date, in addition to and not in limitation of any other right or remedy (including right to

**Schedule JH-S1**

set off, counterclaim or otherwise withhold payment or any recourse to any Credit Support Document) under applicable law, the Non-defaulting Party or non-Affected Party (in either case, "X") may without prior notice to any person set off any sum or obligation (whether or not arising under this Agreement and whether matured or unmatured, whether or not contingent and irrespective of the currency, place of payment or booking office of the sum or obligation) owed by or owed to the Defaulting Party or Affected Party (in either case, "Y") to or from X or any Affiliate of X against any sum or obligation (whether or not arising under this Agreement, whether matured or unmatured, whether or not contingent and irrespective of the currency, place of payment or booking office of the sum or obligation) owed by or owed to X or any Affiliate of X to or from Y, and to the extent any such amounts are so set off, those amounts will be discharged promptly in all respects.

For purposes of this Section, X may convert any payment obligation or amount to be set-off hereunder from one currency to another by using a rate of exchange at which such party would be able, acting in a reasonable manner and in good faith, to purchase the relevant amount of such currency.

If an obligation is unascertained, X may in good faith estimate that obligation and set-off in respect of the estimate, subject to the relevant party accounting to the other when the obligation is ascertained.

Nothing in this Set-Off provision shall be effective to create a charge or other security interest. This Set-Off provision shall be without prejudice and in addition to any right of set-off, combination of accounts, lien or other right to which any party is at any time otherwise entitled (whether by operation of law, contract or otherwise)."

- (e) **Confirmations.** With respect to each Transaction entered into pursuant to this Agreement, Party A will promptly send to Party B a Confirmation in substantially the form of the Exhibits to the ISDA Definitions. Party B shall accept the Confirmation within three (3) New York Business Days after receipt of such Confirmation or inform Party A of a bona fide error by providing Party A with written notice (notice shall not be provided by a document reflecting the terms of the Transaction generated by Party B) of those terms of the Confirmation provided by Party A that are disputed by Party B. For all purposes of this Agreement, the Confirmation shall be effective and binding upon the parties upon receipt by Party A of Party B's acceptance of the Confirmation. If Party A does not receive from Party B either acceptance or notification of bona fide error within three (3) New York Business Days after receipt of such Confirmation, Party B shall be deemed to have accepted the Confirmation. Any documentation provided by Party B as to the terms of a Transaction (including documents referenced or identified as confirmations) shall not be a Confirmation and will not be binding between the parties as to the terms of a Transaction between the parties; unless however, if Party A fails to provide Party B a Confirmation within ten (10) Local Business Days after the trade date of a Transaction, Party B may provide Party A with a Confirmation that meets the requirements of this provision. If within ten (10) Local Business Days after the trade date of a Transaction Party B has provided Party A with documentation referenced as a Confirmation that meets the requirements of this provision and Party A has failed to provide Party B with a Confirmation, then Party B's documentation shall be deemed

accepted as the Confirmation unless disputed by Party A by the fourteenth (14) Local Business Day after the trade date of the Transaction.

- (f) **Severability.** Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction in respect of any Transaction shall, as to such Transaction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions of the Agreement or affecting the validity or enforceability of such provision as to any other jurisdiction or Transaction unless such severance shall substantially impair the benefits of the remaining portions of this Agreement or changes the reciprocal obligations of the parties. The parties hereto shall endeavor in good faith negotiations to replace the prohibited or unenforceable provision with a valid provision, the economic effect of which comes as close as possible to that of the prohibited or unenforceable provision.
- (g) **Consent to Recordings.** The parties hereto (i) agree that each may electronically monitor or record, at any time and from time to time, any and all communications between them, (ii) waive any further notice of such monitoring or recording, (iii) agree to notify and obtain any necessary consents of its officers and employees of such monitoring or recording, (iv) agree that any such monitoring or recording may be submitted into evidence in any suit, trial, hearing, arbitration, or other proceeding, and (v) agree to furnish appropriately redacted copies of recordings to the other party within fifteen (15) days of the other party's written request.
- (h) **Absence of Litigation.** Section 3(c) of this Agreement is hereby amended by: (i) adding in the second line thereof after the word "governmental" the words "or regulatory" and (ii) adding the words "in any material respect" immediately prior to the end of the section.
- (i) **Alternative Dispute Resolution.** To the fullest extent permitted by law, each of the parties hereto waives any right it may have to a trial in respect of any disputes directly or indirectly arising out of, under or in connection with this Agreement. All disputes arising under or directly or indirectly connected with this Agreement and the Credit Support Documents are subject to the following sole and exclusive procedures; provided, however, that any claim by either party related to such disputes shall be time-barred unless the asserting party commences an arbitration proceeding with respect to such claim within one year of the occurrence of the event giving rise to the dispute; provided, further, that the asserting party must commence arbitration within one year of the Termination Date of the Transaction to which the claim relates:

**A. MEDIATION WITH DESIGNATED NEUTRAL**

The parties shall endeavor to settle the dispute by mediation under the Center for Public Resources ("CPR") Model Procedure for Mediation of Business Disputes in effect on the date of this Agreement. The parties, with the assistance of CPR, shall select a mediator. In the event that the CPR becomes unwilling or unable to assist in the selection of a mediator, the parties have selected JAMS/Endispute as the alternate. If the matter has not been resolved by mediation within 30 days of the originating party's notice for mediation, or if the parties, within ten (10) Local

Business Days of seeking the assistance of CPR, fail to select a mediator, then either party may initiate binding arbitration as set forth below.

**B. ARBITRATION UNDER THE CPR RULES**

Any unresolved dispute arising out of or relating to this Agreement or the Credit Support Documents, or the breach, termination or validity thereof, shall be adjudicated by binding arbitration in accordance with the Center for Public Resources Rules for Non Administered Arbitration of Business Disputes in effect on the date of this Agreement, by three independent and impartial arbitrators. Each party shall appoint one independent and impartial arbitrator within 5 Local Business Days after the notification by a party of the initiation of binding arbitration. The third independent and impartial arbitrator shall be elected by the arbitrators chosen by each party within 10 days after they have both been appointed and this panel of arbitrators will notify the parties within 10 days after the selection of the third arbitrator of the date of the scheduling conference. The parties shall have sixty (60) days from the appointment of the arbitrators to perform discovery and present evidence and argument to the arbitrators. The arbitration shall be governed by the United States Arbitration Act, 9 U.S.C. Sections 1-16, and judgment upon the award rendered by the arbitrator(s) may be entered by any court having jurisdiction thereof. The place of arbitration shall be Columbus, Ohio. The arbitrator(s) are not empowered to award damages in excess of compensatory damages, and each party hereby irrevocably waives any right to recover such damages with respect to any dispute resolved by arbitration.

- (j) **LIMITATION OF LIABILITY. NO PARTY SHALL BE REQUIRED TO PAY OR BE LIABLE FOR SPECIAL, PUNITIVE, EXEMPLARY, INCIDENTAL, CONSEQUENTIAL, OR INDIRECT DAMAGES (WHETHER OR NOT ARISING FROM ITS NEGLIGENCE) TO ANY OTHER PARTY; PROVIDED, HOWEVER, THAT NOTHING IN THIS PROVISION SHALL AFFECT THE ENFORCEABILITY OF SECTION 6(e) OF THIS AGREEMENT. IF AND TO THE EXTENT ANY PAYMENT REQUIRED TO BE MADE PURSUANT TO THIS AGREEMENT AND ANY CREDIT SUPPORT DOCUMENT IS DETERMINED TO CONSTITUTE LIQUIDATED DAMAGES, THE PARTIES ACKNOWLEDGE AND AGREE THAT SUCH DAMAGES ARE DIFFICULT OR IMPOSSIBLE TO DETERMINE AND THAT SUCH PAYMENT IS INTENDED TO BE A REASONABLE APPROXIMATION OF THE AMOUNT OF SUCH DAMAGES AND NOT A PENALTY.**
- (k) **Annual Consolidated Financial Statement.** "Annual Consolidated Financial Statement" means a copy of the annual report of the relevant person containing audited consolidated financial statements for such party's fiscal year certified by independent auditors and prepared in accordance with the generally accepted accounting principles of the United States ("U.S. GAAP").
- (l) **Quarterly Consolidated Financial Statement.** "Quarterly Consolidated Financial Statement" means a copy of the quarterly report of the relevant person containing audited, or unaudited if audited financials are not available, for such party's fiscal quarter prepared in accordance with U.S. GAAP.



- (m) **No Third Party Beneficiaries.** Except for transfers pursuant to Section 7, this Agreement is entered into solely for the benefit of Party A and Party B and not for the benefit of any other persons or entities. No other persons or entities may enforce this Agreement for their benefit nor shall they have any claim or remedy for any breach thereof.
- (n) **Construction of Contract.** THE PARTIES ACKNOWLEDGE THAT EACH TERM, PROVISION, AND CLAUSE OF THIS AGREEMENT HAS BEEN JOINTLY CONSTRUCTED, NEGOTIATED, AND PREPARED BY THE COMBINED EFFORTS OF THE PARTIES TO THE EXCLUSION OF NEITHER PARTY. THE PARTIES AGREE THAT THE TERMS, PROVISIONS, AND CLAUSES OF THIS AGREEMENT SHOULD NOT BE INTERPRETED IN FAVOR OF ONE PARTY AGAINST THE OTHER AS THE RESULT OF ANY CONSTRUCTION, NEGOTIATION, OR PREPARATION THEREOF.
- (o) **Local Business Days.** For all purposes of this Agreement and all Transactions entered into hereunder, Local Business Days are days on which U.S. commercial banks are open for business in New York, New York.
- (p) **Preceding Business Day Convention.** For pricing purposes Business Day shall be defined as the Commodity Business Day. If such day is not a Business Day, then the Preceding Business Day Convention shall apply unless otherwise specifically provided for in a Confirmation.
- (q) **Payment Failure Interest.** Provided a party ("Y") has not designated an Early Termination Date with respect to a failure by the other party ("X") in the performance of any payment obligation when due, and X subsequently remedies such failure, to the extent permitted by law, X shall be required to pay interest on the overdue amount to Y on demand in the same currency as such overdue amount for the period from (and including) the original due date for payment to (but excluding) the date of actual payment, at the Default Rate. Such interest will be calculated on the basis of daily compounding and the actual number of days elapsed.
- (r) **Default Rate.** The definition of Default Rate provided in Section 14 of the ISDA Master Agreement is deleted in its entirety and replaced with the following:  
  

"Interest on the unpaid portion shall accrue at a rate equal to the lower of  
 (i) the then-effective prime rate of interest published under "Money Rates"  
 by *The Wall Street Journal*, plus two percent (2%) per annum from the  
 date due until the date of payment; or (ii) the maximum non-usurious  
 applicable lawful interest rate."
- (s) **Rounding.** For the purpose of calculating the Floating Price(s) all numbers shall be rounded as follows: Floating Price(s) relating to commodities quoted in (i) gallons shall be rounded to four places; (ii) MMBtu's shall be rounded to four places; (iii) barrels shall be rounded to three places; (iv) gigajoules shall be rounded to four places; and, (v) MWH shall be rounded to four places. If the number after the final number is five (5) or greater then the final number shall be increased by one (1), and if the number after the final number is less than five (5) then the final number shall remain unchanged.

- (t) **Reference Market-makers.** The definition of "Reference Market-makers" in Section 14 of this Agreement is hereby amended by: (i) deleting "(a)" from the second line thereof, (ii) deleting in the fourth line thereof after the word "credit" the words "and (b) to the extent practicable, from among such dealers having an office in the same city" and (iii) replacing such words with the words "or who enter into transactions similar in nature to such Transactions."
- (u) **AEP Operating Companies.** "AEP Operating Companies" means the electric utility subsidiaries of American Electric Power Company, Inc., consisting of Appalachian Power Company, Columbus Southern Power Company, Indiana Michigan Power Company, Kentucky Power Company, Ohio Power Company, Public Service Company of Oklahoma and Southwestern Electric Power Company.
- (v) **Agency.** The AEP Operating Companies have appointed Party A to act as their agent for energy commodity derivatives transactions.
- (w) **Ameren Agency.** Union Electric Company d/b/a AmerenUE and Ameren Energy Generating Company have appointed Ameren Energy Inc. to act as their agent for energy commodity transactions.
- (x) **Confidentiality.** This Agreement, all Transactions subject to this Agreement, all documents relating to this Agreement or any Transaction subject to this Agreement, and any information made available by one party or its Advisors (as defined below) to the other party or its Advisors with respect to this Agreement or any Transaction subject to this Agreement, are confidential (collectively referred to hereafter as "Confidential Information"). Each party shall at a minimum use the same efforts and standard of care with respect to Confidential Information provided by the other party that it uses to preserve its own Confidential Information. Confidential Information shall not be disclosed by a party or its Advisors (defined below) to any third party (nor shall any public announcement relating to this Agreement be made by either party), except for such information (i) as may become generally available to the public, (ii) as may be required or appropriate in response to any summons, subpoena, or otherwise in connection with any litigation or to comply with any applicable law, order, regulation, ruling, stock exchange reporting requirement or accounting disclosure rule or standard, (iii) as may be obtained from a non-confidential source that disclosed such information in a manner that did not violate its obligations to the other party in making such disclosure, (iv) as may be furnished to that party's auditors, attorneys or advisors (collectively the "Advisors") who shall be required to keep the information that is disclosed in confidence, or (v) relating to Transaction information being provided to a third party who will use such Transaction information for the sole purpose of calculating a published index of pricing or reporting on other transaction information covering the industry as a whole, and provided further that such third party shall have entered into a confidentiality agreement relating to the Transaction data with the party to this Agreement providing such Transaction information. This provision shall remain in effect two years following the termination of this Agreement.
- (y) **Cancellation.** Either party may cancel this Agreement upon 30 days prior written notice to the other party in the manner provided in Section 12. Except as otherwise specifically provided herein, cancellation of this Agreement shall not relieve the parties of any obligations incurred with respect to this Agreement prior to such cancellation.

## Part 6

### Provisions for Commodity Derivative Transactions

- (a) Section 7.3 of the 1993 ISDA Commodity Derivatives Definitions is amended to read as follows:

**Section 7.3. Corrections to Published Prices.** For purposes of determining the Relevant Price for any day, if the price published or announced on a given day and used or to be used by the Calculation Agent to determine a Relevant Price is subsequently corrected and the correction is published or announced by the person responsible for that publication or announcement within 30 calendar days of the original publication or announcement, either party may notify the other party of (i) that correction and (ii) the amount (if any) that is payable as a result of that correction. If, not later than 30 calendar days after the publication or announcement of that correction, a party gives notice that an amount is so payable, the party that originally either received or retained such amount will, no later than 3 Business Days after the effectiveness of that notice, pay subject to any applicable conditions precedent, to the other party that amount, together with interest on that amount at the Default Rate for the period from and including the day on which a payment originally was (or was not) made to but excluding the day of payment of the refund or payment resulting from that correction.

- (b) The “**Market Disruption Events**” specified in Section 7.4(d)(i) of the Commodity Definitions shall apply in addition to “**Trading Limitation**” in Section 7.4(c)(viii).

“**Trading Limitation**” specified in Section 7.4(c)(viii) of the Commodity Definitions is hereby amended by the addition of the following at the end thereof:

“For these purposes, a limitation of trading on any Commodity Business Day shall be deemed to be material only if the relevant Exchange establishes limits on the range within which the price of the Futures Contract may fluctuate and the closing or settlement price of such Futures Contract on such day is at the upper or lower limit of that range.”

- (c) “**Additional Market Disruption Events**” shall apply if so specified in the Confirmation.

- (d) The following “**Disruption Fallbacks**” defined in Section 7.5(c) of the Commodity Definitions shall apply, in the following order:

- (1) “**Negotiated Fallback**”;
- (2) “**Fallback Reference Price**”;

- (3) "Postponement"; with three (3) Commodity Business Days as the Maximum Days of Disruption; or
- (4) "Fallback Reference Dealers."

## Part 7

### Physically Settled Power Transactions

- (a) The ISDA North American Power Annex attached hereto as Exhibit A is hereby added and deemed to be part of, and incorporated into, the Master Agreement as a new Part 7 to the Master Agreement; provided, however, that the following elections set forth in "(j) Elective Provisions" and "(k) Other Modifications to this Power Annex" below shall be applicable to such Part 7. All references to "Part [6]" in Exhibit A shall be replaced with "Part 7."
- (b) This Power Annex shall replace and supersede the Master Power Purchase and Sale Agreement dated February 21, 2002 as amended, by and between the parties ("EEI Master") which shall terminate as of the Effective Date of this Agreement, notwithstanding Section 10.1 of the EEI Master to the contrary.
- (c) Section "(j) **Elective Provisions**" shall be completed as follows:
  - (j) **Elective Provisions**
    - 1. (a)(ii)   X   Applicability of Part 7 to Outstanding Power Transactions. If not checked, not applicable.
    - 2. (a)(iii)   X   Applicability of Outstanding Credit Support held by a party in connection with Outstanding Power Transactions. If not checked, not applicable.
    - 3. (c)   X   Accelerated Payment Damages. If not checked, not applicable.
    - 4. (d)(ii): Timeliness of Payment
      - Option A
      - X   Option B

If neither is checked, Option B shall be deemed to apply.
    - 5. (h)(i): Wholesale Power Tariffs
      - X   Party A Electric Tariff. FERC Electric Tariff Original Volume No. 5, effective October 10, 1997 in Docket Number ER-97-4143-000 and FERC Electric Tariff Original Volume No. 8, effective January 8, 1998 in Docket Number ER 98-542-000"
      - X   Party B Electric Tariff.

Union Electric Company:

Tariff: Rate Schedule FERC No. 1  
Date: 6/3/2000  
Docket No.: ER00-2687

Ameren Energy Generating Company:  
Tariff: FERC Electric Tariff  
Date: 8/15/2000  
Docket No.: ER00-3412  
Original Volume No. 1

If not checked, not applicable.

6. (h)(ii) X Applicability of Severability provision. If not checked, not applicable.
  7. (h)(iii) X Applicability of FERC Standard of Review and Certain Covenants and Waivers. If not checked, not applicable.
- (d) The following new Section “(k)” **Other Modifications to this Power Annex** shall apply to this Part 7:

(k) **Other Modifications to this Power Annex**

1. The reference to “[5(a)(ii)(1)]” in clause (i)(ii)(B) shall be deleted and the square brackets shall be deleted from the reference to “Section [5(a)(ii)]”.
2. **FERC Standard of Review.** Subsections (C) and (D) to the provisions of Part 7(h)(iii) of this Schedule are deleted and replaced with the following new subsection (C):

“(C) The parties agree that, if and to the extent that FERC adopts a final rule in Docket No. RM05-35, Standard of Review for Modifications of Jurisdictional Contracts (“**Final Rule**”), which: (1) states that FERC will interpret contractual silence on the standard of review applicable to unilateral attempts to modify any of the rate(s), charges, classifications, terms or conditions of this Agreement as the intent to invoke a Mobile-Sierra public interest standard of review; and (2) requires that parties seeking to reserve their right, or the right of a non-party or FERC, to seek unilateral modification of this Agreement under a just and reasonable standard of review must do so explicitly in the Agreement in accordance with the terms prescribed by FERC in order to avoid application of the public interest standard under the Mobile-Sierra doctrine, then, without further action of either party, Part 7(h)(iii)(A) of this Schedule shall be deemed amended in any manner necessary to reflect the parties’ intent to exclude application of the just and reasonable standard under the Mobile-Sierra doctrine, the parties must agree to language which varies from that set forth in Part 7(h)(iii)(A) of this Schedule then, without further action of either party, such Part 7(h)(iii)(A) of this Schedule shall be deemed amended to incorporate the specific language in the Final Rule that requires the public interest standard of review.

3. The definition of “Replacement Price” in clause (i)(iv) is hereby amended by inserting the words “for delivery” between the words “purchases” and “at” in the second line of such clause (i)(iv).

4. The definition of "Sales Price" in clause (i)(iv) is hereby amended by (a) deleting words "at the Delivery Point" in the second line of such clause (i)(iv), and (b) inserting the words "provided, however, if the Seller is unable after using commercially reasonable efforts to resell all or a portion of the Product not received by Buyer, the Sales Price with respect to such unsold portion of Product shall be deemed to be equal to zero (0)" in the sixth line following the words "reasonable manner" of such clause (i)(iv).

5. The parties agree to add the following Representation for purposes of this Power Annex ONLY:

**Forward Contract.** The parties acknowledge and agree that the Power Transactions contemplating physical delivery are not "swap agreements" within the meaning of the United States Bankruptcy Code (the "Code") but such Power Transactions constitute "forward contracts" and that each of the parties to this Agreement is a "forward contract merchant" with respect to such Power Transactions within the meaning of the Code.

6. **Schedule P Modifications.** The following definitions are hereby added to Schedule P:

(i) "CAISO Energy" means with respect to a Power Transaction, a Product under which the Seller shall sell and the Buyer shall purchase a quantity of energy equal to the hourly quantity without Ancillary Services (as defined in the Tariff) that is or will be scheduled as a schedule coordinator to schedule coordinator transaction pursuant to the applicable tariff and protocol provisions of the California Independent System Operator ("CAISO") (as amended from time to time, the "CAISO Tariff") for which the only excuse for failure to deliver or receive is an "Uncontrollable Force" (as defined in the CAISO Tariff).

(ii) Specification of Service Level.

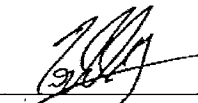
If the parties agree to a service level defined by a different agreement (i.e., the WSPP agreement, the ERCOT agreement, etc.) for a particular Power Transaction, then, unless the parties expressly state and agree that all the terms and conditions of such other agreement will apply, such reference to a service level/product shall be as defined by such other agreement, including if applicable, the regional reliability requirements and guidelines as well as the excuses for performance, Force Majeure, Uncontrollable Forces, or other such excuses applicable to such other agreement, to the extent inconsistent with the terms of this Agreement, but all other terms and conditions of this Agreement remain applicable."

7. **Conversion Convention – None.**

*{signatures appear on the following page}*

IN WITNESS WHEREOF, the parties have executed this Schedule by their duly authorized officers as of the date hereof.

**American Electric Power Service Corporation,  
as agent for the AEP Operating Companies**

By: 

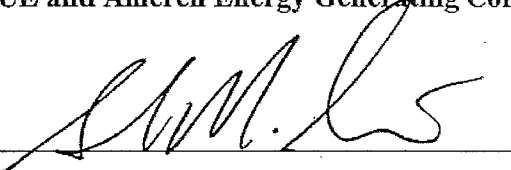
Name: Todd D. Busby

Title: Vice President

Date: May 17, 2006



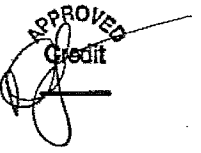


**Ameren Energy Inc.  
as agent for and on behalf of Union Electric Company d/b/a  
AmerenUE and Ameren Energy Generating Company**

By: 

Name: Andrew M. Serri

Title: President

Date: May 23, 2006

APPROVED  
Credit  
  
  
APPROVED  
Legal  
  
  
APPROVED  
Contract  
Admin.  


**ISDA®**

International Swaps and Derivatives Association, Inc.

**AMENDMENT**

dated as of August 1, 2006

to the

**ISDA MASTER AGREEMENT**

dated as of May 15, 2006

between

**AMERICAN ELECTRIC POWER SERVICE CORPORATION,  
as agent for the AEP Operating Companies ("Party A")**

**and**

**AMEREN ENERGY INC.  
as agent for and on behalf of  
UNION ELECTRIC COMPANY d/b/a AMERENUE and  
AMEREN ENERGY GENERATING COMPANY  
("Party B")**

The parties have previously entered into the ISDA Master Agreement (the "Agreement") referenced above, and have now agreed to amend the Agreement by the terms of this Amendment (this "Amendment").

The International Swaps and Derivatives Association, Inc. ("ISDA") has published the 2005 ISDA Commodity Definitions. The parties have previously entered into transactions that incorporate the 1993 ISDA Commodity Derivatives Definitions and the 2000 ISDA Supplement to the 1993 ISDA Commodity Derivatives Definitions by reference in the parties' Schedule to the Agreement. The purpose of this Amendment is to amend the Agreement with the specific modifications set forth below.

Accordingly, in consideration of the mutual agreements contained in this Amendment, the parties agree as follows:

**1. Amendment of the Agreement**

The Agreement is amended as follows:

- (a) Any reference in the Schedule to the Agreement to the incorporation of the 1993 ISDA Commodity Derivatives Definitions and, if applicable, the 2000 ISDA Supplement to the 1993 ISDA Commodity Derivatives Definitions, shall be deemed instead to be a reference to the incorporation of the 2005 ISDA Commodity Definitions (as published by the International Swaps and Derivatives Association, Inc.).
- (b) "Part 6 Provisions for Commodity Derivative Transactions" is deleted in its entirety.

Schedule JH-S1  
**HIGHLY CONFIDENTIAL**



## 2. Representations

Each party represents to the other party in respect of the Agreement, as amended pursuant to this Amendment, that all representations made by it pursuant to the Agreement are true and accurate as of the date of this Amendment.

## 3. Miscellaneous

### (a) *Entire Agreement; Restatement.*

- (i) This Amendment constitutes the entire agreement and understanding of the parties with respect to its subject matter and supersedes all oral communication and prior writings (except as otherwise provided herein) with respect thereto.
- (ii) Except for any amendment to the Agreement made pursuant to this Amendment, all terms and conditions of the Agreement will continue in full force and effect in accordance with its provisions on the date of and immediately prior to this Amendment. References to the Agreement will be to the Agreement, as amended by this Amendment.

(b) *Amendments.* No amendment, modification or waiver in respect of the matters contemplated by this Amendment will be effective unless made in accordance with the terms of the Agreement.

(c) *Counterparts.* This Amendment may be executed and delivered in counterparts (including by facsimile transmission), each of which will be deemed an original.

(d) *Headings.* The headings used in this Amendment are for convenience of reference only and are not to affect the construction of or to be taken into consideration in interpreting this Amendment.

(e) *Governing Law.* This Amendment will be governed by and construed in accordance with the laws of the State of New York (without reference to choice of law doctrine).

**IN WITNESS WHEREOF** the parties have executed this Amendment on the respective dates specified below with effect from the date specified first on the first page of this Amendment.

**AMERICAN ELECTRIC POWER  
SERVICE CORPORATION**, as agent  
for the AEP Operating Companies  
("Party A")

By: [Signature]  
Name: Todd D. Busby  
Title: Vice President  
Date: August 1, 2006

**AMEREN ENERGY INC.**  
as agent for and on behalf of **UNION ELECTRIC  
COMPANY d/b/a AMERENUE and AMEREN  
ENERGY GENERATING COMPANY**  
("Party B")

By: [Signature]  
Name: Andrew M. Seeri  
Title: Pres.  
Date: August 15, 2006

APPROVED  
Contract  
Admin.  
[Signature]

APPROVED  
Credit  
[Signature]

APPROVED  
Legal  
[Signature]

[Signature]

**SECOND AMENDMENT  
TO THE  
ISDA SCHEDULE TO THE  
1992 MASTER AGREEMENT**

**THIS SECOND AMENDMENT TO THE ISDA SCHEDULE TO THE 1992 MASTER AGREEMENT** (referred to as "Second Amendment") is made and entered into the 31<sup>st</sup> day of December, 2006, by and between **AMERICAN ELECTRIC POWER SERVICE CORPORATION** as agent for the AEP Operating Companies ("Party A") and **AMEREN ENERGY, INC.** as agent for and on behalf of Union Electric Company d/b/a AmerenUE and Ameren Energy Generating Company ("Party B"), (Party A and Party B may be referred to collectively as "Parties" or individually as "Party").

**WITNESSETH:**

**WHEREAS**, Party A and Party B are Parties to that certain 1992 Master Agreement dated May 15, 2006, and First Amendment dated August 1, 2006, (hereinafter "Master Agreement"); and

**WHEREAS**, Party B is subject to a certain Joint Dispatch Agreement between Union Electric Company and Ameren Energy Generating Company dated December 18, 1995, as amended, which obligates Union Electric Company and Ameren Energy Generating Company to operate their generation fleet as a single fleet in accordance with the terms of the Joint Dispatch Agreement; and

**WHEREAS**, effective January 1, 2007, the Joint Dispatch Agreement will terminate; and

**WHEREAS**, upon termination of the Joint Dispatch Agreement, Ameren Energy, Inc. will no longer have authority to serve as agent for Ameren Energy Generating Company nor to enter into transactions on behalf of Ameren Energy Generating Company under this Master Agreement; and

**WHEREAS**, Party B hereby desires to amend the Master Agreement and all annexes to Schedules to remove Ameren Energy Generating Company from the Master Agreement effective January 1, 2007 subject to the terms and conditions set forth in this Second Amendment.

**NOW, THEREFORE**, in consideration of the mutual covenants and agreements stated herein, which each of the Parties hereto acknowledges to be sufficient consideration, Party A and Party B agree to amend the Schedule to the Master Agreement, as follows:

**1. Part 5. Other Provisions:**

Other Provisions (w) *Ameren Agency* shall be deleted in its entirety and replaced with the following:

(w) Ameren Agency.

(A) Transactions Completed Before 1/1/2007. For all Transactions entered into prior to January 1, 2007 that have delivery periods (with respect to physical transactions) or calculation periods (with respect to financial transactions) ending prior to January 1, 2007 ("Completed Transactions"):

- (1) Union Electric Company and Ameren Energy Generating Company (collectively the "Client Companies" and each individually "Client Company") collectively shall be deemed to be "Party B";
- (2) any reference in this Master Agreement to Party B shall be deemed to refer to both Client Companies except as otherwise specifically noted;
- (3) all payment obligations, whether due before or after January 1, 2007, are the responsibility of both Client Companies;
- (4) for the avoidance of doubt, an Event of Default with respect to either Client Company shall be an Event of Default with respect to both Client Companies; and
- (5) Party A may exercise its remedies (whether under the Master Agreement, in contract, at law or in equity) against any individual Client Company or against both Client Companies, as more fully explained in subsection (G) hereof.

(B) All Other Transactions: For all Transactions that are not Completed Transactions ("All Other Transactions"):

- (1) Party B shall be solely Union Electric Company d/b/a AmerenUE with Ameren Energy, Inc. ("AE") acting as agent on its behalf;
- (2) all payment, performance, delivery and all other obligations of Party B related to, arising from or under All Other Transactions shall be the sole responsibility of Union Electric Company d/b/a AmerenUE;
- (3) **AMEREN ENERGY GENERATING COMPANY SHALL NOT HAVE ANY RIGHTS OR OBLIGATIONS WHATSOEVER FOR ALL OTHER TRANSACTIONS, NOTWITHSTANDING THAT THE CONFIRMATION MAY HAVE BEEN ENTERED INTO PRIOR TO JANUARY 1, 2007; and**
- (4) As of January 1, 2007, Party A agrees to release Ameren Energy Generating Company from any and all liabilities arising pursuant under All Other Transactions.

(C) Designation of Agent by Client Companies.

(1) Each of the Client Companies has designated AE as its authorized agent for purposes of entering into this Agreement and all Transactions, amendments, schedules, annexes and all other documents related thereto, and for the purpose of administering all Completed Transactions. For All Other Transactions, Union Electric Company d/b/a AmerenUE has designated AE to act as its authorized agent.

(2) Party A shall be fully protected in acting in reliance upon any actions or representations of AE on behalf of the Client Companies hereunder, or in respect of any or all matters for which authority is granted herein, occurring, including without limitation to the generality of the foregoing, any request, instruction, certificate, representation or other document furnished by AE to Party A under the Master Agreement, or any action taken by AE in connection with the Master Agreement and any Transaction.

(D) Representations and Warranties of AE. AE represents and warrants to Party A (which representations and warranties will be deemed to be repeated by AE on each date on which a Transaction is entered into by AE on behalf of each entity comprising Party B) that:

(i) AE has been duly appointed as, and has the capacity to act as, agent on behalf of each Client Company and is fully authorized to enter into and confirm the Transaction on behalf of each Client Company and to procure the performance of the relevant Transaction or part of a Transaction on behalf of each such entity, and it has not received notice that such appointment or authorization has been revoked; and

(ii) all governmental and other consents, if any, required or necessary for AE to act on behalf of each Client Company in connection with this Agreement and all Transactions, amendments, schedules, annexes and all other documents related thereto have been obtained.

(E) Amendment of AE Agency Agreement; Effectiveness. In the event of any amendment to the provisions contained in the agency agreement between AE and any Client Company which would materially or legally affect Party B's position in relation to this Master Agreement, AE undertakes to disclose and notify Party A as soon as practicable of such amendment, which amendment shall have no effect on Party B until its receipt of notice thereof.

(F) Cessation of Agent. If AE ceases to be the authorized agent of either or both of the Client Companies, the Client Companies shall immediately confirm in writing their respective obligations to Party A under this Master Agreement, in which event Party A and the Client Companies shall enter into such amendments to this Master Agreement as may be necessary to provide for the administration of this Master Agreement in the absence of an agent of the Client Companies.

(G) Enforcement of Completed Transactions. With respect to the Completed Transactions, Party A may bring an action under this Master Agreement or under any Completed Transactions hereunder against any one or more of the entities comprising Party B and, if judgment is rendered in favor of Party A, may collect the full amount of such judgment from such entity or entities. Each entity comprising Party B waives the right to assert as a defense to the collection of such judgment (1) the inability to obtain, or the right to first seek, contribution from the other entities comprising Party B and (2) the failure to join any entity comprising Party B as a defendant or defendants; provided, however, that nothing herein shall prevent such entity from asserting such rights of contribution against the other entity comprising Party B after Party A has been paid in full.

(H) Attribution of Payments to AE. Any payments by Party A to AE under this Master Agreement at any time shall constitute and be construed as direct payments to the entities comprising Party B at such time. For avoidance of doubt, if Party A makes payments that pertains to Completed Transaction, those payment shall constitute and be construed as a direct payments to both Client Companies, even if such payments are made after January 1, 2007.

2. **Full Force and Effect.** Except as specifically amended hereby, the Master Agreement shall continue in full force and effect according to its original terms.

3. **Definitions.** Terms found in this Second Amendment shall have the same meaning as those in the Master Agreement, unless otherwise defined herein.

IN WITNESS WHEREOF, the Parties hereto have caused this Second Amendment to be executed in duplicate by their respective, duly authorized officers, effective as of the day and year first above written.

*AMEREN ENERGY, INC. as agent for and on behalf of Union Electric Company d/b/a AmerenUE and Ameren Energy Generating Company*

**AMERICAN ELECTRIC POWER SERVICE  
CORPORATION,**  
*as agent for the AEP Operating Companies*

By: [Signature]  
 CA [Signature] Name: Andrew M. Serri  
 CR [Signature] Title: President  
 LGL [Signature] Date: 12/15/00

By: .....  
Name: Barbara D. Radous  
Title: Vice President  
Date: December 13, 2006

### THIRD AMENDMENT AGREEMENT

**THIS THIRD AMENDMENT AGREEMENT** (the "Amendment") dated as of September 20, 2007, by and between **AMERICAN ELECTRIC POWER SERVICE CORPORATION** as agent for the **AEP Operating Companies** ("Party A") and **UNION ELECTRIC COMPANY D/B/A AMERENUE** ("Party B").

#### **WITNESSETH**

WHEREAS, Party A and Party B have entered into an ISDA Master Agreement dated as of May 15, 2006 and first amended August 1, 2006 and second amended December 31, 2006 (the "Master Agreement"); and

WHEREAS, Party A and Party B wish to amend the Master Agreement and to have the Master Agreement, as amended herein, govern the rights and obligations of Party A and Party B with respect to each and every Transaction which is (a) outstanding on the date hereof, and (b) entered into on or after the date hereof.

NOW, THEREFORE, in consideration of the mutual agreements herein contained, Party A and Party B hereby acknowledge and agree as follows:

1. Unless otherwise defined herein, capitalized terms used herein have the meanings specified in or pursuant to the Master Agreement.
2. Any reference in the Master Agreement to "Ameren Energy, Inc. as agent for and on behalf of Union Electric Company d/b/a AmerenUE" shall be deleted and replaced with "Union Electric Company d/b/a AmerenUE".
2. Part 5(c)(i)(i) "**Non-Reliance**" the first sentence is deleted in its entirety and replaced with the following:

"American Electric Power Service Corporation is acting as agent for disclosed principals and Party B is acting on its own behalf as principal and not as agent or in any other capacity, fiduciary or otherwise."

3. Part 5(w) "**Ameren Agency**" of the Schedule to the Master Agreement shall be amended to add the following additional paragraph at the end thereof:

"(I) Effective October 15, 2007, Ameren Energy, Inc. will no longer act as agent for Union Electric Company d/b/a AmerenUE. Instead, Union Electric Company d/b/a AmerenUE will act on its own behalf as principal (and not as agent or in any other capacity, fiduciary or otherwise). Union Electric Company d/b/a AmerenUE hereby confirms its obligations to Party A under the Master Agreement and states that any payments under this Master Agreement shall be made to Union Electric Company d/b/a AmerenUE."

4. Except as specifically amended hereby, all of the terms and conditions of the Master Agreement shall continue to be in full force and effect and shall be binding upon the parties in accordance with their respective terms.
5. Each of the parties hereby represents and warrants that the execution, delivery and performance of this Amendment are within the party's corporate power and have been duly

authorized by all necessary corporate action, and this Amendment constitutes the legal, valid and binding obligation of the party in accordance with its terms.

6. This Amendment may be executed in any number of counterparts and by the different parties hereto on separate counterparts, each of which when so executed and delivered shall be an original, but all of which shall together constitute one and the same instrument.
7. This Amendment shall be construed in accordance with and be governed by the laws of the State of New York (without reference to choice of law doctrine).

IN WITNESS WHEREOF, the parties have caused this Amendment to be executed by their respective officers or authorized representatives as of the day and year first above written.

**AMERICAN ELECTRIC POWER  
SERVICE CORPORATION, as agent for  
the AEP Operating Companies**

*Party A*

By: Barbara D. Radous

Name: Barbara D. Radous

Title: Vice President

Date: October 29, 2007

*yes  
g*

**UNION ELECTRIC COMPANY D/B/A  
AmerenUE**

*Party B*

By: Shawn E. Schukar

Name: Shawn E. Schukar

Title: Vice President

Date: September 24, 2007

CA	<i>[initials]</i>
CR	<i>[initials]</i>
LGL	<i>[initials]</i>
DM	<i>[initials]</i>



REFERENCE NUMBER:

1222878

This Confirmation Letter will confirm the agreement reached on 02/27/2009 between Union Electric Company d/b/a AmerenUE ("AmerenUE") and AMERICAN ELECTRIC POWER SERVICE CORPORATION AS AGENT FOR THE AEP OPERATING COMPANIES ("AEP") (each individually a "Party" and collectively the "Parties") regarding the sale of capacity and associated electric energy under the terms and conditions of the ISDA Master Agreement entered into between AmerenUE and AEP dated 05/15/2006, as amended. The Capacity and Energy provided by AmerenUE herein will enable AEP to partially meet load serving requirements. The terms of this Confirmation Letter are as follows:

**TERMS OF TRANSACTION**

Trade Date: 02/27/2009

Seller: AmerenUE

Buyer: AEP

Trader: Jaime Haro

Trade Type: PHYSICAL Capacity and associated Energy (Partial Requirements – baseload)

Term: 03/01/2009 through and including 05/31/2010 (Including NERC Holidays)

Scheduling: Fin Schedule will be entered and settled on a day-ahead basis.

Product: Firm LD Capacity as that term is defined in the Edison Electric Institute MISO Module E Capacity Transaction Confirmation, Version 1.0 – October 20, 2008 incorporated herein by this reference and associated Firm LD Energy, and including any Aggregate Planning Resources Credits ("APRC"), as such term is defined in Midwest Independent Transmission System Operator, Inc. ("MISO") Resource Adequacy business Practices Manual as may be amended from time to time ("RA BPM"). For clarification purposes, the Parties acknowledge and understand that, in accordance with the RA BPM, one APRC represents one megawatt ("MW") of Unforced Capacity, as such term is defined in the MISO Open Access Transmission and Energy Markets Tariff as may be amended from time to time ("MISO Tariff"), that qualifies to satisfy the resource adequacy requirements of Module E of the MISO Tariff. The APRC's shall only be aggregate planning resource credits, and not any external or local planning credits.

Special Provision: Seller shall accomplish delivery of the any APRC's associated with the Capacity by submitting the appropriate transaction(s) in MISO's Module E capacity tracking system, or any successor system ("MECT") to electronically assign the Quantity (i.e the Delivery Quantity of Capacity set forth below) to Buyer. Buyer shall accomplish receipt of the APRCs by confirming the appropriate transaction(s) submitted by Seller in the MECT. Seller and Buyer shall accomplish delivery and receipt of the APRCs by submitting and confirming the appropriate transaction(s) in the MECT, by the earlier of: (i) five (5) Business Days after the execution of this Confirmation; or (ii) five (5) Business Days prior to the Resource Plan Deadline, as such term is defined in the MISO Tariff, for the first month encompassed by this Transaction ("Transfer Deadline"). The submitting and confirming of the appropriate transaction(s) in the MECT shall be conducted by the Parties in accordance with the requirements of the RA BPM and other applicable rules adopted by the MISO regarding the MECT.

Delivery Point: MISO CINERGY.HUB (Scheduled day-ahead)

Delivery Period: HE 01 Central Standard Time on 03/01/2009 through and including HE 24 Central Daylight Time on 05/31/2010, around the clock for each day of the Delivery Period.

Delivery Quantity: Capacity 100 MW; Energy 100 mw/hour

Total MWh: 1,096,800 MWh

Trade Price: \$32.05 MW / hour

Please confirm that the terms stated herein accurately reflect the agreement reached on 02/27/2009 between AEP and AmerenUE by returning an executed copy of this letter by facsimile to Contract Administration at (314) 613-9015. Your response should reflect the appropriate party in your organization who has the authority to enter into this transaction. Failure to object to any or all terms in this Transaction Agreement or to respond within five business days from the date first stated above shall be deemed acceptance of all terms and conditions as stated in this Transaction Agreement.

Union Electric Company d/b/a AmerenUE

American Electric Power Service Corporation as agent for  
the AEP Operating Companies

Name: Jaime Haro  
Title: Director, Trading

Name: Todd Bush  
Title: Vice President

Schedule JH-S1  
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UNION ELECTRIC COMPANY D/B/A AMERENUE

ELECTRIC SERVICE AGREEMENT  
TERMS AND CONDITIONS

This Electric Service Agreement ("Agreement") is dated and effective as of APRIL 28, 2009 between Union Electric Company d/b/a AmerenUE ("UE" or "Seller") and Wabash Valley Power Association, Inc. ("Buyer") for capacity and energy to be provided to Buyer based on the prices, terms and conditions set forth in Appendix A. The Product provided under this Agreement shall be provided at the Delivery Point(s) identified in Appendix A. Appendix B sets forth various charges of the applicable Regional Transmission Organization and the party responsible for such charges. Appendix C consists of notice and contact information for Seller and Buyer. Appendices A-C are attached hereto and incorporated herein as if a part of this Agreement. To the extent there is any conflict between this Agreement and any of the Appendices, the terms and conditions set forth in this Agreement shall control. As used throughout, Seller and Buyer are each referred to as "Party" and collectively as "Parties".

AGREEMENT

1. DEFINITIONS

**Affiliate** means, in relation to any person, any entity controlled, directly or indirectly, by the person, any entity that controls, directly or indirectly, the person or any entity directly or indirectly under common control with the person. For the purposes of this definition, "control" of any entity or person means ownership of a majority of the voting power of the entity or person.

**Agreement** means this Electric Service Agreement dated APRIL 28, 2009.

**Business Day** means any day, Monday through Friday, excluding the following NERC holidays: New Year's Day, Memorial Day (observed), Independence Day, Labor Day (observed), Thanksgiving Day (observed), and Christmas Day, and excluding any additional holidays on which banks in St. Louis, Missouri are allowed or required to be closed.

**Central Prevailing Time ("CPT")** means Central Standard Time or Central Daylight Time, as in effect in the State of Missouri on a given day.

**Claiming Party** means a Party asserting that a Force Majeure event affecting it has occurred.

**Commercial Pricing Node ("CP Node")** shall have the same meaning as set forth in the Tariff.

**Delivery Point(s)** means the point where title to and risk of loss for the Product transfers from Seller to the Buyer as more specifically defined in Appendix A.

**FERC** means the Federal Energy Regulatory Commission and any successor agency thereto.

**Good Utility Practice** means any of the practices, methods, and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision is made, could have been expected to accomplish the desired result consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be any one of a number of the optimum practices, methods, or acts to the exclusion of all others, but rather to be acceptable practices, methods or acts generally acted in the region.

**LMP or Locational Marginal Price** shall have the same meaning as set forth in the Tariff.

**Market Participant** shall have the same meaning as set forth in the Tariff.

**Market-Related RTO Charges** means the charges (and credits) imposed by the RTO pursuant to its Tariff.

**Meter Data Management Agent ("MDMA")** shall mean the agent identified by Buyer for providing to the Midwest ISO meter data associated with Buyer's CP Node.

**Metering Point** shall mean the physical location of the meter or meters utilized by Buyer or its MDMA for providing meter data to the Midwest ISO.

**Midwest ISO (or MISO)** means the Midwest Independent Transmission System Operator, Inc. or the successor(s) to the functions thereof.

**NERC** means North American Electric Reliability Corporation

**Product** means the capacity and energy Seller is obligated to provide and Buyer is obligated to purchase under the terms and conditions of this Agreement. The capacity to be provided by Seller hereunder shall be System Firm capacity in an amount not to exceed 150 megawatts. System Firm shall have the meaning ascribed to such term in the Edison Electric Institute Master Power Purchase & Sale Agreement (Version 2.1) Schedule P ("Schedule P") which definition shall be incorporated herein for this limited purpose by this reference. The capacity shall also qualify as Aggregate Planning Resources Credits ("APRC"), as such term is defined in the MISO Resource Adequacy Business Practices manual as may be amended from time to time ("RA BPM"). For purposes of clarity, the Parties acknowledge and understand that, in accordance with the RA BPM, one APRC represents one megawatt of Unforced Capacity, as such term is defined in the Tariff, that qualifies to satisfy the resource adequacy requirements of Module E of the tariff.

The energy provided hereunder shall be Firm LD, Firm LD shall have the meaning ascribed to such term in Schedule P. The Buyer shall use the Product to partially meet the requirements of Citizens Electric Corporation in Missouri.

The Product provided hereunder will be supplied from the owned or controlled generation or purchased power assets of UE (i.e. the "System" or the "Seller's System").

**Regional Transmission Organization ("RTO")** means the applicable FERC-approved organization as defined in 18 CFR §35.34. The RTO currently applicable to Buyer is MISO.

**Replacement Cost** means the price at which Buyer, acting in a commercially reasonable manner, purchases Replacement Power, plus (i) costs reasonably incurred by Buyer in purchasing Replacement Power and (ii) additional Market-Related RTO Charges, if any, reasonably incurred by Buyer to the Delivery Point(s); provided, however, Buyer shall not be required to utilize or change its utilization of its owned or controlled assets or market positions to minimize Seller's liability, except as required by Section 2(b). In the absence of any other arrangements being made by Buyer in the event of non-delivery by Seller, the energy cost component of Buyer's Replacement Cost for any given hour shall be priced at the MISO day-ahead LMP at the Delivery Point(s). In the event that Buyer incurs a demand charge for capacity purchased, the demand cost component of Buyer's Replacement Cost shall be the same as such demand charges incurred by Buyer.

**Replacement Power** means the power purchased by Buyer at the Delivery Point(s) for the portion of Product not delivered by Seller.

**Tariff (or TEMT)** means the Open Access Transmission and Energy Markets Tariff for the Midwest ISO, on file with and accepted by FERC, which sets forth the rates, terms and conditions of transmission service and the energy market over the Midwest ISO transmission system, as amended from time to time.

## **2. ELECTRIC ENERGY SERVICES**

(a) Seller shall supply and deliver to Buyer the Product, and Buyer shall purchase and receive from Seller the Product in accordance with the terms and conditions of this Agreement. The Product shall be delivered by Seller to the Delivery Point(s). Buyer shall be responsible for the delivery of the Product at and from the Delivery Point(s). The delivery of the Product from the Delivery Point(s), for which Seller has no responsibility, is subject to the terms

**Schedule JH-S2  
HIGHLY CONFIDENTIAL**

and conditions of the Tariff. Each Party shall perform or cause to be performed its responsibilities under this Agreement in accordance with Good Utility Practice.

### **3. TERM OF AGREEMENT**

As set forth in the first paragraph hereof, this Agreement shall be in effect and binding as of the date stated therein, and shall continue in effect through October 31, 2010, unless terminated prior to this date pursuant to the terms of this Agreement (the "Term"). Notwithstanding the foregoing, deliveries of the Product hereunder shall commence on May 1, 2009 and continue through the Term.

### **4. TAXES**

Except for taxes on the income of Seller, all federal, state, and municipal or other governmental subdivision taxes, assessments, fees, use taxes, sales taxes or excise taxes, or similar taxes or fees incurred by reason of services provided under this Agreement and which are imposed downstream of the Delivery Point(s) are the sole responsibility of Buyer, and Buyer agrees to hold harmless and indemnify Seller from any liability, demand or payment for same. It is understood that Seller is responsible for all taxes applicable prior to Seller's delivery to the Delivery Point(s), and Seller agrees to hold harmless and indemnify Buyer from any liability, demand or payment for same.

### **5. CONFIDENTIALITY**

Buyer and Seller and/or Seller's agents shall treat as confidential all terms and conditions of this Agreement, including all information and documentation exchanged by the Parties during the negotiations of this Agreement. Neither Party will disclose terms and conditions of this Agreement to any other Party, except as required by law or regulation (including applicable Missouri public records laws). Notwithstanding the foregoing, Seller and/or Seller's agents and Buyer shall be allowed to acknowledge that an Agreement does exist between the Parties.

### **6. WARRANTY, DISCLAIMER AND LIMITATION OF LIABILITY**

Seller warrants title to all Product, capacity and energy, delivered to the Delivery Point(s) hereunder, and sells such capacity and energy to Buyer free from liens and adverse claims, to the Delivery Point(s). **THIS IS SELLER'S ONLY WARRANTY CONCERNING THE SERVICES PROVIDED HEREUNDER, AND IS MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES AND REPRESENTATIONS, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY OR OTHERWISE. SELLER DOES NOT GUARANTEE UNINTERRUPTED SERVICE AND SHALL NOT BE LIABLE FOR ANY DAMAGES SUSTAINED BY BUYER (OTHER THAN AS EXPRESSLY PROVIDED FOR HEREIN) BY REASON OF ANY FAILURE, ALTERATION OR INTERRUPTION OF SERVICE. NEITHER PARTY SHALL BE RESPONSIBLE UNDER ANY CIRCUMSTANCES FOR ANY SPECIAL, INCIDENTAL, INDIRECT, EXEMPLARY, OR CONSEQUENTIAL DAMAGES, INCLUDING LOSS OF PROFITS, OR OTHER BUSINESS INTERRUPTION DAMAGES, BY STATUTE, IN TORT OR CONTRACT, UNDER ANY INDEMNITY PROVISION OR OTHERWISE, INCURRED BY THE OTHER PARTY.**

### **7. FORCE MAJEURE; DAMAGES FOR FAILURE TO DELIVER OR RECEIVE**

(a) To the extent either Party is prevented by Force Majeure from carrying out, in whole or part, its obligations under this Agreement and such Party (the "Claiming Party") gives notice and details of the Force Majeure to the other Party as soon as practicable, then the Claiming Party shall be excused from the performance of its obligations under this Agreement (other than the obligation to make payments then due or becoming due with respect to performance prior to the Force Majeure). The Claiming Party shall remedy, to the extent possible, the Force Majeure with all reasonable dispatch. The non-Claiming Party shall not be required to perform or resume performance of its obligations to the Claiming Party corresponding to the obligations of the Claiming Party for the period excused by Force Majeure.

(b) "Force Majeure" means an event or circumstance which prevents the Claiming Party from performing its obligations or causes delay in the Claiming Party's performance under this Agreement, which event or circumstance was not anticipated as of the date of the Agreement, which is not within the reasonable control of, or the result of negligence of, the Claiming Party, and which, by the exercise of due diligence or use of Good Utility Practice, the Claiming Party is unable to overcome or avoid or cause to be avoided, such as, but not limited to, acts of God; fire; flood; earthquake; war; riots; terrorism; strikes, walkouts, lockouts and other labor disputes that affect Buyer, Seller,

and/or Seller's System; or requirements, actions or failure to act on the part of governmental authorities. The settlement of strikes, walkouts, lockouts and other labor disputes that affects Buyer's consumption of the Product or Seller's System shall be entirely within such Party's discretion and such Party may make settlement at such time and on such terms and conditions as may deem to be advisable. Force Majeure shall not be based on (i) the loss of the Buyer's markets; (ii) Buyer's inability economically to use or resell the Product purchased under this Agreement, (iii) Seller's ability to sell the Product at a price greater than that specified in Table 1 of Appendix A, (iv) Buyer's or Seller's inability to acquire or generate power when such inability has not been caused by an act of Force Majeure; or (v) the financial condition of either Party. Neither Party may raise a claim of Force Majeure based in whole or in part on curtailment by a Transmission Provider unless (i) such Party has contracted for firm transmission with the Transmission Provider for the Product to be delivered to or received at the Delivery Point(s) and (ii) such curtailment is due to Force Majeure or similar term as defined under the Transmission Provider's tariff; provided, however, that existence of the foregoing factors shall not be sufficient to conclusively or presumptively prove the existence of Force Majeure absent a showing of other facts and circumstances which in the aggregate with such factors establish that a Force Majeure as defined in the first sentence herein has occurred.

(c) Provided Seller's actions are non-discriminatory and reflect the exercise of Good Utility Practice, Seller's failure to deliver shall be excused: (i) by an event of Force Majeure; (ii) by Buyer's material failure to perform; or (iii) to the extent the balancing authority or reliability council within which the System operates declares an emergency condition, as determined in the balancing authority's or reliability council's reasonable judgment, which affects the Seller's ability to deliver power. Provided, however, that (1) if conditions described in (iii) above affect only certain of the Seller's resources and Seller is able to perform using other Seller resources, Seller's failure to deliver shall not be excused and (b) any curtailment or interruption of service by Seller hereunder due to conditions described in (iii) above shall be excused only if such curtailment or interruption is implemented consistent with the limitations set forth in Section 19.

(d) Buyer's failure to receive shall be excused: (i) by Force Majeure; (ii) by Seller's material failure to perform, or (iii) to the extent the balancing authority or reliability council within which the Delivery Point(s) is located declares an emergency condition, as determined in the balancing authority's or reliability council's reasonable judgment, which affects the Buyer's ability to receive power.

(e) In the event of any excused failure to deliver or receive, neither Party shall be liable to the other for any damages. In such event, the quantities of capacity and energy not delivered or not received: (i) shall be excluded from the quantities for which Buyer shall be charged pursuant to Section 13 herein, and (ii) shall be deemed to have been delivered and received for purposes of determining Buyer's compliance with the Minimum Energy Requirements under Appendix A.

(f) If Seller fails to deliver the Product to Buyer, and such failure is not excused under Section 7(c), the provisions of Section 7(e)(i) - (ii) shall apply and, in addition, if Buyer's Replacement Cost (in \$/MWh) exceeds the price for the Product hereunder, Seller shall pay or credit to Buyer an amount equal to the product of the Product not delivered and the positive difference between the Replacement Cost per MWh and the price for the Product. Buyer may calculate the payment or credit to which Buyer is entitled under this Section 7(f) in a commercially reasonable manner and offset the amount against its next payment to Seller. In addition, if Seller's failure to deliver the Product to Buyer, or any other breach of its obligations under this Agreement, causes Buyer to incur additional Market Related RTO Charges, Seller shall reimburse Buyer for all such charges.

(g) If Buyer fails to receive the Product from Seller and such failure is not excused under Section 7(d), and if Seller's replacement sale price per MWh (less all delivery-related costs and other charges assessed to Seller by the Midwest ISO as a result of Buyer's failure to receive) to sell the Product that Buyer failed to receive is less than the price for the Product hereunder, Buyer shall pay Seller an amount equal to the product of the Product not received and the positive difference between Seller's replacement sale price and the price for the Product. In addition, if Buyer's failure to receive the Product from Seller, or any other breach of its obligations under this Agreement, causes Seller to incur Market Related RTO Charges or other charges, Buyer shall reimburse Seller for all such charges; provided, however, that Seller has a duty to mitigate such charges in a commercially reasonable manner.

## 8. CHANGES IN LAW OR REGULATION

The Parties acknowledge and agree that the Product Price is based on the existing laws, regulations, statutes, rules, ordinances, Tariff and RTO business practices in place on the effective date of this Agreement. In the event that there is a material change in any rule, regulation, Tariff, business practice, ordinance, statute, or law affecting the sale or transmission of the Product (including but not limited to any administrative ruling, interpretation, or judicial decision), or any change in Seller's participation in the MISO, that significantly alters the relative benefits and burdens of the Parties under this Agreement, Buyer and Seller will revise this Agreement to restore the balance of risks, rewards, and costs originally set forth in this Agreement. If the Parties cannot mutually agree to revise the Agreement, the matter shall be submitted to arbitration or other dispute resolution processes in accordance with the provisions of this Agreement.

Without limiting the generality of the foregoing paragraph, the Parties agree that if any one of the following events occurs prior to the end of this Agreement the Parties will meet as soon as practicable, but no later than 30 days after the date such event occurs, to identify and discuss its effect on the terms and conditions of, and prices for, service under this Agreement: a) a state tax on electric generation; or b) a state or federal tax on and/or regulation of greenhouse gas emissions (e.g. a carbon tax). The Parties further agree that if any one of these events occurs, the Parties will negotiate to determine in a commercially reasonable manner whether the affected terms, conditions and prices can be revised so as to preserve the economic benefits of this Agreement for both Parties and to revise the Agreement accordingly. In the event the Parties are not able to agree on such revisions, the Seller or Buyer may terminate this Agreement by written notice to the other Party no earlier than 60 days and no later than 90 days after such event occurs, with the termination being effective when notice is given.

#### **9. ASSIGNMENT**

This Agreement shall be binding on each Party's successors and permitted assigns. Neither Party shall assign this Agreement or its rights without the prior written consent of the other Party, which consent shall not be unreasonably withheld; provided, however, either Party may: 1) assign its rights and obligations under this Agreement to an Affiliate without consent of the other Party, subject to the Affiliate's satisfactory creditworthiness and, if Seller is the assigning Party, also subject to the assignee Affiliate having the rights to and responsibilities for the System in order to continue to provide service hereunder from the System resources; or 2) transfer or assign this Agreement to any person or entity succeeding to all or substantially all of the assets, subject to the assignee's satisfactory creditworthiness; provided, however, that in each such case, any such assignee shall agree in writing to be bound in whole by the terms and conditions hereof and so long as the transferring Party delivers such tax and enforceability assurances as the non-transferring Party may reasonably request. Creditworthiness under this section is to be determined by the non-transferring Party.

#### **10. WAIVER**

Except as otherwise set forth in this Agreement, failure or delay on the part of either Party to exercise any right, power, or privilege under this Agreement shall not operate as a waiver of such right, power or privilege of this Agreement.

#### **11. CREDITWORTHINESS**

If requested by Seller, Buyer shall deliver within 120 days following the end of each fiscal year, a copy of Buyer's annual report containing audited consolidated financial statements for such fiscal year end. Statements shall be prepared in accordance with the generally accepted accounting principles. Should the creditworthiness or financial responsibility of Buyer become unsatisfactory to UE at any time during which this Agreement is in effect, as determined by UE in a commercially reasonable manner, including consideration of the market exposure assumed relevant to the Liquidation Value of this Agreement under Section 14, UE may request additional financial statements in accordance with the previous sentence. The Parties to this agreement stipulate that the Buyer's current financial condition is satisfactory as of the date of execution, and has been deemed "creditworthy" by UE. Pursuant to annual credit reviews performed by UE on the Buyer, should the financial condition of Buyer become materially weaker, as determined in a commercially reasonable manner, including but not limited to the timeliness of payments made to UE under this Agreement, UE may require satisfactory security before further performance under this Agreement. UE will provide the Buyer with written notice requesting adequate security in a form acceptable to UE as determined in a commercially reasonable manner. In no instance shall adequate security, if requested, exceed a value that is greater than the Liquidation Value as defined in Section 14. If required, this value will be calculated by

UE using commercially reasonable standards. Upon receipt of such written notice the Buyer shall have 5 Business Days to provide adequate security to UE. In the event that the Buyer fails to provide such adequate security within the time period stated herein, then an Event of Default under Section 14 will be deemed to have occurred.

If requested by Buyer, Seller shall deliver within 120 days following the end of each fiscal year, a copy of Seller's annual report containing audited consolidated financial statements for such fiscal year end. Statements shall be prepared in accordance with the generally accepted accounting principles. Should the credit rating of Seller fall below BB+ by Standard and Poor's or below Ba1 by Moody's, Buyer may require satisfactory security before further performance under this Agreement. Buyer will provide the Seller with written notice requesting adequate security in a form acceptable to Buyer as determined in a commercially reasonable manner. In no instance shall adequate security, if requested, exceed a value that is greater than the Liquidation Value as defined in Section 14. If required, this value will be calculated by Buyer using commercially reasonable standards. Upon receipt of such written notice the Seller shall have 5 Business Days to provide adequate security to Buyer. In the event that the Seller fails to provide such adequate security within the time period stated herein, then an Event of Default under Section 14 will be deemed to have occurred. The Parties to this agreement stipulate that the Seller's current creditworthiness as defined above is satisfactory as of the date of execution..

## **12. RESERVED**

## **13. PAYMENTS/INVOICES**

Seller shall render an invoice to Buyer via facsimile or electronic mail ("e-mail") within 5 Business Days of the end of each month in which service was provided. Payments shall be received by Seller via an electronic method on or before the latter of the 20<sup>th</sup> of each calendar month or no later than 10 Business Days following the issue date of each facsimiled or e-mailed invoice, hereafter referred to as the "Due Date" (if the Due Date falls on a weekend day, then the Due Date is automatically moved to the next Business Day). Amounts not paid on or before the Due Date shall be deemed delinquent and subject to a late payment charge equivalent to the U. S. Prime Rate as quoted in the "Money Rates" section of *The Wall Street Journal*, as published on the first Business Day of each month or on the next preceding Business Day if not published on the first Business Day of the month plus two percent (2.0%) per annum, and accrued daily, but in no event greater than the maximum interest rate permitted by law ("Default Interest Rate"). If Buyer, in good faith, disputes the correctness of any invoice rendered under this Agreement then Buyer shall: 1) provide written explanation of the basis of the dispute to Seller; and 2) pay at least the undisputed portion of the amount invoiced no later than the Due Date. If the disputed amount is withheld, and later determined to have been due to Seller, it shall be paid to Seller within 5 Business Days of such determination, along with interest at the Default Interest Rate from and including the date such amount was due, but excluding the date paid. Any amounts paid by Buyer that are later determined not to have been due shall be refunded with interest calculated at the Default Interest Rate. Buyer shall have the right to challenge any invoiced amount at any time within three years of issuance of the invoice.

## **14. EVENTS OF DEFAULT**

**Definition:** An "Event of Default" shall mean, with respect to a defaulting Party ("Defaulting Party"), the occurrence of any of the following: (a) the failure to make, when due, any payment required pursuant to this Agreement (other than disputed amounts) if such failure is not remedied within 3 Business Days after written notice of such failure; (b) any representation or warranty made by such Party herein is false or misleading in any material respect when made or when deemed made or repeated; (c) the failure to perform any material covenant or obligation set forth in this Agreement (except to the extent constituting a separate Event of Default, and except for such Party's obligations to deliver or receive where such Party has made payments due for such failure to deliver or receive) if such failure is not remedied within 3 Business Days after written notice; (d) such Party: 1) files a petition or otherwise commences, authorizes or acquiesces in the commencement of a proceeding or cause of action under any bankruptcy, insolvency, reorganization or similar law, or has any such petition filed or commenced against it; 2) makes an assignment or any general arrangement for the benefit of creditors; 3) otherwise becomes bankrupt or insolvent (however evidenced); or 4) has a liquidator, administrator, receiver, trustee, conservator or similar official appointed with respect to it or any substantial portion of its property or assets as part of bankruptcy proceeding or reorganization for the benefit of creditors; (e) the failure of such Party to satisfy the creditworthiness/collateral requirements under Section 11 of this Agreement; (f) a Party consolidates or merges with or into, or transfers all or substantially all of its assets to, another entity and, at the time of such consolidation, amalgamation, merger or transfer, the resulting, surviving or transferee entity fails to assume all the obligations of such Party under this

Agreement, or the resulting, surviving or transferee entity does not satisfy the creditworthiness/collateral requirement set forth in Section 11 of this Agreement; or (g) a Party is unable to pay its debts as they fall due. In addition, it shall be an Event of Default by Seller if at any time during the term of this Agreement the transmission provider does not accept this Agreement (i.e., the Product) as a designated network resource or APRC because of matters within the sole control of Seller.

**Suspension and Early Termination:** If an Event of Default occurs, the non-defaulting Party ("the Non-Defaulting Party") may, at its option and in its sole discretion: 1) suspend its performance under this Agreement; or 2) designate a day, no earlier than the day such notice is effective and no later than 20 days after such notice is effective, as an early termination date as of which the Non-Defaulting Party shall have the right to liquidate this Agreement and to demand payment of, which the defaulting Party ("the Defaulting Party") shall pay upon invoice, a settlement amount which shall be equal to: (a) if Buyer is the Defaulting Party, any unpaid and outstanding invoice(s) plus the positive difference (if any) of the Product Price (\$/MWh) minus the Market Price multiplied by projected energy consumption over the remainder of the Term; or (b) if Seller is the Defaulting Party, any refunds or other amounts then due to the Buyer plus the positive difference (if any) of the Market Price minus the Product Price (\$/MWh) multiplied by projected energy consumption over the remainder of the Term, less amounts currently owed to the Seller based on Product delivered but not yet paid to Seller, (in either case the "Liquidation Value"). Any such calculation shall be discounted to present value at the Treasury rate for the applicable period remaining in the Agreement, and shall have added to it other costs, expenses and charges under this Agreement which the Non-Defaulting Party incurs as a result of such early termination, in addition and without prejudice to any right of setoff, recoupment, combination of accounts, lien or other right to which the Non-Defaulting Party is otherwise entitled, whether by operation of law, equity, contract or otherwise as a result of the Event of Default and early termination of this Agreement, subject to any limitations on liability as set forth in Section 6 WARRANTY, DISCLAIMER, AND LIMITATION OF LIABILITY. For the purposes of this section, "Market Price" shall mean the amount, as determined by the Non-Defaulting Party in a commercially reasonable manner, for a product equivalent to the Product at the then current prevailing prices. The Non-Defaulting Party may consider, among other things, quotations from the leading dealers in the wholesale energy industry, internally developed forward market prices and other bona fide third party offers as commercially available to the Non-Defaulting Party, which will be adjusted, as necessary, for the period and differences in transmission costs, volume, and other factors, as reasonably determined by the Non-Defaulting Party.

#### 15. NOTICES

Except for notices required under Section 14, all other notices to be provided under this Agreement may be sent by U.S. mail, personal delivery, fax, or orally in the case of an emergency (with a written confirmation following any notice due to an emergency). All such notices shall be deemed given and received when transmitted by any of the above methods. However, all notices required under Section 14 must be given by certified mail return receipt requested or by overnight delivery and shall be effective only upon actual receipt of notice. Notices shall be sent to those identified in the attached Notice and Contact Schedule.

#### 16. FORWARD CONTRACT

The Parties agree this Agreement is construed and understood to be a "forward contract" as defined by the U.S. Bankruptcy Code.

#### 17. GOVERNING LAW

The validity, interpretation and performance of this Agreement shall be governed by and performed in accordance with the laws of the State of Missouri, and without regard to principles of conflicts of law.

#### 18. RESOLUTION OF DISPUTES/ARBITRATION

If a question or controversy arises between the Parties concerning the observance or performance of any of the terms, provisions or conditions contained herein or the rights or obligations of either Party under this Agreement, such question or controversy shall in the first instance be the subject of a meeting between the Parties to negotiate a resolution of such dispute. Such meeting shall be held within 15 days of a request by either Party. If within 15 days after that meeting, the Parties have not negotiated a resolution or mutually extended the period of negotiation, the question or controversy may, upon mutual agreement, be resolved by arbitration in accordance with arbitration procedures established from time to time by the American Arbitration Association ("AAA"). The panel of arbitrators to be provided shall be competent in their expertise and qualifications to understand and arbitrate the

dispute. In addition to the arbitration procedures established by the AAA, arbitration shall be conducted pursuant to the Federal Rules of Evidence. The arbitrators may award only damages as allowed for by this Agreement, and attorney fees and other legal costs. Any decision and award of the majority of arbitrators shall be binding upon both Parties. Judgment upon the award rendered may be entered in any court of competent jurisdiction.

#### **19. PRIORITY OF SUPPLY**

Seller agrees that it will consider Buyer equivalent to Seller's native load customers and agrees that the Product that it will provide to Buyer, pursuant to this Agreement, will be System Firm power with the same quality as the electric power that the Seller provides to its firm retail customers. In the unlikely event that Seller makes a request for voluntary curtailment, or requires mandatory curtailment, of consumption by such firm retail customers, Buyer will (upon request by Seller, made with as much advance notice as possible) request voluntary curtailment, or require mandatory curtailment, of consumption by its customers in the same proportion as requested or required of native firm retail customers of the Seller. Further, in no event shall Buyer be subject to curtailment or interruption by the Seller to any greater degree than Seller's simultaneous curtailment or interruption of any other wholesale customer(s) with which Seller contracts with after the effective date of this Agreement, except to the extent that transmission system conditions would not warrant curtailment to other wholesale customers. Further, Seller shall not have any obligations to Buyer under this Section in the event that Seller is required to curtail Buyer or any of Buyer's customers pursuant to direction from the Transmission Provider or the Local Balancing Authority.

#### **20. MODIFICATIONS TO CONTRACT**

Except as provided in the paragraph below, this Agreement may be modified only by written amendment executed by the authorized representatives of both Parties.

The Parties waive all rights to submit filings to FERC seeking modification or rescission of this Agreement, under Sections 205 or 206 of the Federal Power Act, on the basis of the "just and reasonable" standard of review contained in those sections. The Parties waive all rights to argue before FERC that the "just and reasonable" standard of review should be applied to any proceeding involving this Agreement brought under Section 206 of the Federal Power Act. In any proceeding before FERC involving this Agreement, the Parties shall request that FERC review any and all aspects of this Agreement under the "public interest" standard of review set forth in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956), and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956) (the "Mobile-Sierra" doctrine).

#### **21. NO THIRD PARTY BENEFICIARIES**

This agreement is intended solely for the benefit of the Parties hereto. Nothing in this Agreement shall be construed to create any duty to, or standard of care with reference to, or any liability to, any person not a Party to this Agreement. For the avoidance of doubt, nothing in this Agreement shall be construed to create any duty to, or standard of care with reference to, or any liability to, any Buyer member.

#### **22. NO WAIVER**

No failure or delay in exercising any right, power, or privilege hereunder will operate as a waiver thereof, nor will any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power, or privilege hereunder.

#### **23. INDEMNIFICATION**

Buyer shall indemnify and hold Seller harmless from and against any claim by or liability to Buyer members or customers of Buyer or Buyer members for loss or damage arising out of any performance or failure to perform under this Agreement. Seller shall indemnify and hold Buyer harmless from and against any claim by or liability to customers of Seller, Seller agents, or Seller parents or subsidiaries for loss or damages arising out of any performance or failure to perform under this Agreement.

#### **24. COUNTERPARTS**

This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

#### **25. RECORDS AND AUDIT**



Parties shall maintain all the records related to the service provided under this Agreement for a period of least three years. Each Party shall have the right to audit the records of the other Party.

IN WITNESS WHEREOF, the Parties to this Agreement have executed and delivered this Agreement on the date and year first set out above.

UNION ELECTRIC COMPANY  
d/b/a AMERENUE

By: 

Print Name: Jaime Haro

Title: Director, Trading

WABASH VALLEY POWER ASSOCIATION, INC.

By: 

Print Name: Rick Coons

Title: President and Chief Executive Officer

## Appendix A

**Delivery Point(s):** The Delivery Point(s) shall be the AMMO.WVPA CP Node. The Parties must agree in writing in the event that they desire an alternative or additional Delivery Point.

Title to and risk of loss related to the Product purchased hereunder shall transfer from Seller to Buyer at the Delivery Point(s). Seller warrants that it shall deliver to Buyer at the Delivery Point(s) such capacity and energy free and clear of all liens, security interests, claims and encumbrances or any interest therein or thereto by any person arising prior to the Delivery Point(s).

**Product Price:** The Product Price is set forth in Table 1 below.

The Product Price includes charges for energy and capacity only. It does not include any reserves, or congestion costs, marginal transmission losses beyond the Delivery Point, or Market-Related RTO Charges that are assigned to Buyer in Appendix B.

The Product Price also does not include any charges for transmission or delivery of the Product (except for transmission-related charges associated with power purchased by Seller from outside of the MISO system, which are Seller's sole responsibility).

**Transmission and Market-Related RTO Charges:** Buyer shall be responsible for paying for the transmission service needed to supply its load.

Buyer also shall be responsible for paying all Market-Related RTO Charges assigned to Buyer in Appendix B.

Any charges (credits) assessed to Seller by MISO that are the responsibility of Buyer under this Agreement shall be allocated to Buyer through the invoice issued by Seller to Buyer.

Buyer shall be responsible for the charges incurred to deliver the Product from the Delivery Point(s) to the Buyer's load.

**Delivery Term:** Product delivery shall begin on the date set forth in Table 1 below and shall continue for the Product Delivery Term set forth in Table 1, unless Buyer and Seller mutually agree to extend or shorten the Term of this Agreement in writing or the Agreement is terminated earlier pursuant to Section 14 of this Agreement.

**Maximum Contract Demand:** The maximum amount of capacity that Seller is obligated to provide hereunder is 150 megawatts ("MW") throughout the Delivery Term ("Maximum Contract Demand"). Buyer may apply to change the Maximum Contract Demand with 60 days' prior written notice. Upon such notification, Seller will either elect to serve the incremental capacity and energy at the existing Product Price or offer Buyer a separate price to serve the incremental capacity, energy, and ancillary services for approval and incorporation into the Agreement.

**Minimum Energy Requirements:** Buyer will be required to purchase a minimum of 1,500,000 MWhs of energy during the Delivery Term ("Minimum Energy Requirements"). If Buyer does not purchase such minimum energy during the Delivery Term, the Seller will charge the Buyer the Product Price for Buyer's MWh shortfall below the Minimum Energy Requirements.

**Scheduling:** Buyer shall provide a schedule of the amount of energy Buyer wishes to receive in each hour of the day of delivery no later than 8:00 a.m. CPT the last Business Day prior to the day of delivery. For each hour Buyer schedules energy, Buyer shall take a minimum of 50 MWhs and a maximum of 150 MWhs. The total amount of energy scheduled by Buyer during the Delivery Term shall be sufficient to achieve a seventy-six percent (76%) load factor for the Delivery Term. Load factor shall be calculated by dividing: (i) the total number of MWhs scheduled by Buyer by (ii) the number hours in the Delivery Term multiplied by 150 MW. If Buyer fails to schedule sufficient quantities of energy to meet or exceed a seventy-six percent (76%) load factor for the Delivery Term, Buyer shall pay to Seller the Product Price for each MWh of energy shortfall. Seller shall use a day-ahead Financial Schedule, as such term is defined in the Tariff and MISO business practice manuals, to deliver the amount of Product scheduled

by Buyer each hour from Seller's System to Buyer's load. If Seller fails to enter a Financial Schedule, and such failure is not excused under the terms and conditions of this Agreement, Seller shall reimburse Buyer for each MWh Seller failed to Financially Schedule hereunder at the day-ahead LMP.

Table 1: Product Price and Term.			
Product Price Charge (\$/MWh)	Product Delivery Begins	Product Delivery Ends	Product Delivery Term (months)
\$32.60 MWh	5/1/2009	10/31/2010	18 months

**APPENDIX B – RESPONSIBILITY FOR REGIONAL TRANSMISSION ORGANIZATION CHARGES  
AND OTHER CHARGES**

<b>Day Ahead Charges</b>	<b>Party Responsible for Charges</b>
DA Asset Energy Amount	Buyer
DA Financial Bilateral Congestion	Buyer
DA Financial Bilateral Loss	Buyer
DA Market Administration	Buyer
DA Non-Asset Energy Amount	Buyer
DA Congestion Rebate on Carve-out GFA	Buyer
DA Losses Rebate on Carve-out GFA	Buyer
DA Congestion Rebate on Option B GFA	Buyer
DA Losses Rebate on Option B GFA	Buyer
DA Revenue Sufficiency Guarantee Distribution	Buyer
DA Revenue Sufficiency Guarantee Make Whole	Buyer
DA Schedule 24 Allocation Amount	Buyer
DA Virtual Energy Amount	Buyer
DA Regulation Amount	Buyer
DA Spinning Reserve Amount	Buyer
DA Supplemental Reserve Amount	Buyer

<b>FTR Charges</b>	<b>Party Responsible for Charges</b>
FTR Hourly Allocation	Buyer
FTR Market Administration	Buyer
FTR Monthly Allocation	Buyer
FTR Transaction	Buyer
FTR Yearly Allocation	Buyer
FTR Full Funding Guarantee Amount	Buyer
FTR Guarantee Uplift Amount	Buyer

<b>Real Time Charges</b>	<b>Party Responsible for Charges</b>
RT Asset Energy	Buyer
RT Distribution of Losses	Buyer
RT Financial Bilateral Transmission Congestion	Buyer
RT Financial Bilateral Transmission Loss	Buyer
RT Congestion Rebate on Carve-out GFA	Buyer
RT Losses Rebate on Carve-out GFA	Buyer
RT Market Administration	Buyer
RT Miscellaneous	Buyer
RT Net Inadvertent Distribution	Buyer
RT Non-asset Energy	Buyer
RT Revenue Neutrality Uplift	Buyer
RT Revenue Sufficiency Guarantee 1 <sup>st</sup> Pass Distribution	Buyer
RT Revenue Sufficiency Guarantee Make Whole	Buyer
RT Uninstructed Deviation	Buyer
RT Schedule 24 Allocation Amount	Buyer
RT Schedule 24 Distribution Amount	Buyer
RT Virtual Energy	Buyer
RT Regulation Amount	Buyer
RT Spinning Reserve Amount	Buyer

RT Supplemental Reserve Amount	Buyer
Non-Excessive Energy Amount	Buyer
Excessive Energy Amount	Buyer
Regulation Cost Distribution Amount	Buyer
Spinning Reserve Cost Distribution Amount	Buyer
Supplemental Reserve Cost Distribution Amount	Buyer
Net Regulation Adjustment Amount	Buyer
Regulation Penalty Amount	Buyer
Contingency Reserve Deployment Failure Penalty Amount	Buyer

## OATT Charges

<u>DESCRIPTION</u>	<u>RESPONSIBILITY</u>
Schedule 1 - Scheduling System Control and Dispatch Service	Buyer
Schedule 2 - Reactive Supply And Voltage Control/Generation Sources Service	Buyer
Schedule 3 - Regulation and Frequency Response Service	Buyer
Schedule 4 - Energy Imbalance Service	Buyer (if applicable)
Schedule 5 - Operating Reserve Spinning Reserve Service	Buyer
Schedule 6 - Operating Reserve Supplemental Reserve Service	Buyer
Schedule 7 - Long Term/Short Term Firm Point-to-Point Transmission Service	N/A
Schedule 8 - Non Firm Point-to-Point Transmission Service	N/A
Schedule 9 - Network Integration Transmission Service	Buyer
Schedule 10 - ISO Cost Recovery Adder	Buyer
Schedule 11 - Wholesale Distribution Service	Buyer (if applicable)
Schedule 12 - Gross Receipts Tax Adder	N/A
Schedule 13 - Calculation and Use of Reserved Capacity Multipliers Transmission Customers Serving Loads Within International's Service Area	N/A
Schedule 14 - Regional Through and Out Rate	N/A
Schedule 15 - Power Factor Correction Service	Buyer (if applicable)
Schedule 16 - Financial Transmission Rights Administrative Service Cost Recovery Adder	Buyer
Schedule 17 - Energy Market Support Cost Recovery Adder	Buyer
Schedule 18 - Sub Regional Rate Adjustment	N/A
Schedule 19 - Zonal Transition Adjustment	N/A
Schedule 20 - Treatment of Station Power	N/A
Schedule 21 - Interim SECA Charge Applicable to PJM Entities	N/A
Schedule 22 - SECA Charges to Midwest ISO Zone, Sub-Zones and Customers	N/A
Schedule 23 - Recovery of Schedule 10 and Schedule 17 Costs from Certain GFA's	N/A
Schedule 24 - Control Area Operator Cost Recovery	Buyer
Schedule 25 - Cross Border Cost Allocation Tariff Provisions	N/A
Schedule 26 - Network Upgrade Charge from Transmission Expansion Plan	Buyer

**Appendix C**  
**NOTICE AND CONTACT SCHEDULE**

**UNION ELECTRIC COMPANY d/b/a AMERENUE**

**All Notices:**

Supervisor, Contract Administration

Ameren Services Company  
1901 Chouteau Avenue, Mail Code - 1070  
St. Louis, Missouri 63166-6149

**Contract Administration:**

Attn: Daphne Bradley  
Phone: (314) 613-9413  
Fax: (314) 613-9015  
E-mail: [dbradley@ameren.com](mailto:dbradley@ameren.com)

**Account Management:**

Attn: JR Smith  
Phone: (314) 613-9061  
Fax: (314) 613-9567  
E-mail: [jrsmith@ameren.com](mailto:jrsmith@ameren.com)

**Scheduling:**

Attn: Hourly Desk  
Phone: (314) 613-9500  
Fax: (314) 613-9022

**or (after hours):**

Attn: Hourly Desk  
Phone: (314) 613-9500

**Credit:**

Attn: Tim Moloney, Director of Credit  
Phone: (314) 613-9139  
Fax: (314) 613-9006

**Invoices:**

Attn: Kim Hrin  
Phone: (314) 206-0030  
Fax: (314) 554-6692  
E-mail: [khrin@ameren.com](mailto:khrin@ameren.com)

**Send Wire Payments To:**

US Bank  
for AmerenUE  
ABA: 042000013  
Account: 130103018045

**WABASH VALLEY POWER ASSOCIATION, INC.**

**All Notices:**

Contract Administration

Wabash Valley Power Association, Inc.  
722 N. High School Rd.  
Indianapolis, IN 46214-3756

**Contract Administration:**

Attn: Amanda Caudill  
Phone: 317-481-2835  
Fax: 317-243-6416  
E-mail: [a\\_caudill@wvpa.com](mailto:a_caudill@wvpa.com)

**Account Management:**

Attn: Lee Wilmes  
Phone: 317-481-2845  
Fax: 317-243-6416  
E-mail: [leew@wvpa.com](mailto:leew@wvpa.com)

**Scheduling:**

Attn: Keith Pope  
Phone: 317-344-7000  
Fax: 317-344-7010

**or (after hours):**

Attn: Hourly Desk  
Phone: 317 344-7000

**Credit:**

Attn: Lou Vitale or Director of Credit  
Phone: 317-344-7111  
Fax: 317-344-7001

**Invoices:**

Attn: Accounts Payable  
Phone: 317-481-2800  
Fax: 317-243-6416  
E-mail:

**Send Wire Payments To:**

Fifth Third Bank, Cincinnati OH  
  
ABA: 042000314  
Account: 7654143846

An Original  
SALES FOR RESALE (Account 447)

1. Report all sales for resale (i.e. sales to purchasers other than ultimate consumers transacted on a settlement basis other than power exchanges during the year. Do not report exchanges of electricity (i.e., transactions involving a balancing of debits and credits for energy, capacity, etc.) and any settlements for imbalanced exchanges on this schedule. Power exchanges must be reported on the Purchased Power schedule (pages 326-327).

2. Enter the name of the purchaser in column (a). Do not abbreviate or truncate the name or use acronyms. Explain in a footnote any ownership interest or affiliation the respondent has with the purchaser.

3. In column (b), enter a Statistical Classification Code based on the original contractual terms and conditions of the service as follows:

RQ - for requirements service. Requirements service is service which the supplier plans to provide on an ongoing basis (i.e., the supplier includes projected load for this service in its system resource planning). In addition, the reliability of requirements service must be the same as, or second only to, the supplier's service to its own ultimate consumers.

LF - for long-term service. "Long-term" means five years or longer and "firm" means that service cannot be interrupted for economic reasons and is intended

to remain reliable even under adverse conditions (e.g., the supplier must attempt to buy emergency energy from third parties to maintain deliveries of LF service). This category should not be used for long-term firm service which meets the definition of RQ service. For all transactions identified as LF, provide in a footnote the termination date of the contract defined as the earliest date that either buyer or seller can unilaterally get out of the contract.

IF - for intermediate-term firm service. The same as LF service except that "intermediate-term" means longer than one year but less than five years.

SF - for short-term firm service. Use this category for all firm services where the duration of each period of commitment for service is one year or less.

LU - for long-term service from a designated generating unit. "Long-term" means five years or longer. The availability and reliability of service, aside from transmission constraints, must match the availability and reliability of the designated unit.

IU - for intermediate-term service from a designated generating unit. The same as LU service except that "intermediate-term" means longer than one year but less than five years.

Line No.	Name of Company or Public Authority (Footnote Affiliations)	Statistical Classification	FERC Rate Schedule or Tariff Number *	Actual Demand (MW)		
				Average Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Demand
	(a)	(b)	(c)	(d)	(e)	(f)
1	Requirements Service					
2						
3						
4	Arkansas Power & Light Co	RQ	W-3	27	27	25
5		RQ	89			
6	California, MO	RQ	46 *			
7	Centralia, MO	RQ	36 *			
8	Citizens Electric Corp.	RQ	37 *			
9	Clarkeville, MO	RQ	38 *			
10	Farmington, MO	RQ	39 *			
11		RQ	92			
12	Fredericktown, MO	RQ	40 *			
13	Hannibal, MO	RQ	35 *			
14	Illinois Power Co.	RQ	100			
15	Jackson, MO	RQ	W-4			
16	Kahoka, MO	RQ	48 *	2	2	.2
17	Kirkwood, MO	RQ	51 *			
18	Linneus, MO	RQ	43 *	1	1	1
19	Malden, MO	RQ	W-4			
20	Marceline, MO	RQ	50 *			
21						
22						



**The newly approved terms  
are included in the shaded  
table rows below.**

## **Glossary of Terms Used in Reliability Standards**

**February 12, 2008**

<b>Term</b>	<b>Acronym</b>	<b>Definition</b>
Adequacy		The ability of the electric system to supply the aggregate electrical demand and energy requirements of the end-use customers at all times, taking into account scheduled and reasonably expected unscheduled outages of system elements.
Adjacent Balancing Authority		A Balancing Authority Area that is interconnected another Balancing Authority Area either directly or via a multi-party agreement or transmission tariff.
Adverse Reliability Impact		The impact of an event that results in frequency-related instability; unplanned tripping of load or generation; or uncontrolled separation or cascading outages that affects a widespread area of the Interconnection.
Agreement		A contract or arrangement, either written or verbal and sometimes enforceable by law.
Altitude Correction Factor		A multiplier applied to specify distances, which adjusts the distances to account for the change in relative air density (RAD) due to altitude from the RAD used to determine the specified distance. Altitude correction factors apply to both minimum worker approach distances and to minimum vegetation clearance distances.
Ancillary Service		Those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Service Provider's transmission system in accordance with good utility practice. (From FERC order 888-A.)
Anti-Aliasing Filter		An analog filter installed at a metering point to remove the high frequency components of the signal over the AGC sample period.
Area Control Error	ACE	The instantaneous difference between a Balancing Authority's net actual and scheduled interchange, taking into account the effects of Frequency Bias and correction for meter error.
Arranged Interchange		The state where the Interchange Authority has received the Interchange information (initial or revised).
Automatic Generation Control	AGC	Equipment that automatically adjusts generation in a Balancing Authority Area from a central location to maintain the Balancing Authority's interchange schedule plus Frequency Bias. AGC may also accommodate automatic inadvertent payback and time error correction.

## **Glossary of Terms Used in Reliability Standards**

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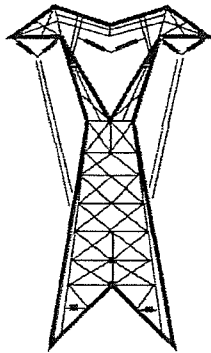
<b>Term</b>	<b>Acronym</b>	<b>Definition</b>
Resource Planner		The entity that develops a long-term (generally one year and beyond) plan for the resource adequacy of specific loads (customer demand and energy requirements) within a Planning Authority Area.
Response Rate		The Ramp Rate that a generating unit can achieve under normal operating conditions expressed in megawatts per minute (MW/Min).
Request for Interchange	RFI	A collection of data as defined in the NAESB RFI Datasheet, to be submitted to the Interchange Authority for the purpose of implementing bilateral Interchange between a Source and Sink Balancing Authority.
Right-of-Way (ROW)		A corridor of land on which electric lines may be located. The Transmission Owner may own the land in fee, own an easement, or have certain franchise, prescription, or license rights to construct and maintain lines.
Scenario		Possible event.
Schedule		(Verb) To set up a plan or arrangement for an Interchange Transaction.  (Noun) An Interchange Schedule.
Scheduled Frequency		60.0 Hertz, except during a time correction.
Scheduling Entity		An entity responsible for approving and implementing Interchange Schedules.
Scheduling Path		The Transmission Service arrangements reserved by the Purchasing-Selling Entity for a Transaction.
Sending Balancing Authority		The Balancing Authority exporting the Interchange.
Sink Balancing Authority		The Balancing Authority in which the load (sink) is located for an Interchange Transaction. (This will also be a Receiving Balancing Authority for the resulting Interchange Schedule.)
Source Balancing Authority		The Balancing Authority in which the generation (source) is located for an Interchange Transaction. (This will also be a Sending Balancing Authority for the resulting Interchange Schedule.)



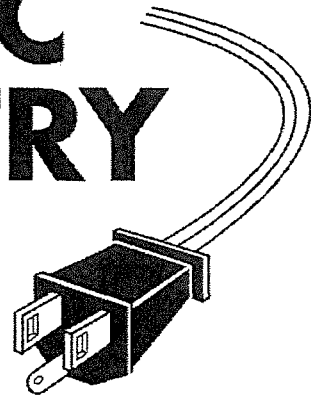
**EDISON ELECTRIC  
INSTITUTE**

# **GLOSSARY**

**OF**



# **ELECTRIC INDUSTRY TERMS**



**APRIL 2005**

Schedule JH-S5

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**Fuel Rod** A long slender tube that holds fissionable material (fuel) for nuclear reactor use. Fuel rods are assembled into bundles called fuel elements or assemblies, which are loaded individually into the reactor core.

**Full-Forced Outage** The net capability of main generating units that is unavailable for load due to emergency reasons.

**Full Requirements** A wholesale customer (utility) that is committed to purchase all of its electric power generation from a single generator and generally there is not a ceiling on the amount of power purchased.

**Full Service Provider** A utility or company that provides both energy and delivery services of retail sales to ultimate consumers.

**Fully Allocated Historical Cost** An allocation of total costs (e.g., revenue requirement expenses, interest, taxes, and return) among all classes of service and jurisdictions using allocation bases reflecting demand, energy, and customer data and costs for a historical period of time. See also *Cost of Service Study*.

**Fully Allocated Projected Cost** Same as above, except based on future period of time.

**Fume** Airborne solid particles under one micron diameter, formed as vapors condense or as chemical reactions take place. The term is generally used to convey particles that are irritating, hazardous, and/or toxic.

**Functional Accounts** Groupings of plant and expense accounts according to the specified function or part they play in the rendition of utility service.

**Electric Utility Plant Functional Plant Account** Includes Intangible, Production, Transmission, Distribution, and General Plant.

**Operation and Maintenance Functional Expense Account** Includes Power Production, Transmission, Distribution, Customer Accounts, Customer Service and Information, Sales, and Administrative and General Expenses.

**Functional Unbundling** A rate design or corporate organization that offers generation, transmission, or distribution services as stand-alone services with separate charges.

**Fictionalization** The procedural step in a cost of service study that categorizes the supply costs related to the operating functions (e.g., generation, transmission, customer, and distribution). The next step is to classify the functionalized costs to categories reflecting cost incurrence. These categories are generally demand, energy, and customer costs.

**Funded Debt** The long-term debt that has arisen from the sale or assumption of debt securities with maturities of more than one year.

**Funnel Sinking Fund** The trustee may purchase bonds of any series outstanding under a mortgage in order to satisfy a sinking fund requirement. The requirement is stated as a percentage of the total debt outstanding in a year.

**Local Distribution Utility (LDU)** The utility that delivers electricity to a retail customer's home or business along the distribution poles, wires and other necessary equipment, that the LDU either owns or operates (formerly a local electric utility). See also *Default Service*.

**Locational Marginal Pricing (LMP)** Under the LMP proposal, the transmission provider establishes separate energy prices at each node on the transmission grid and separate prices to transmit energy between any two nodes on the grid. These prices reflect the cost of congestion and losses. The use of this congestion management system ensures that all transmission constraints are considered in developing day-ahead schedules and any congestion is reflected in the prices for energy and transmission services. See also *Standard Market Design and Structure*.

**Long-Run** A period of time long enough to permit the variation of all inputs to production, including capital and technological change.

**Long-Run Incremental Cost (LRIC)** See *Incremental Cost — Long Run (LRIC)*.

**Long-Run Marginal Cost (LRMC)** See *Marginal Cost — Long Run (LRMC)*.

**Long-Term Debt** Includes outstanding mortgage bonds, debentures, advances from associated companies, and notes which are due one year or more from date of issuance. The portion of such securities (inclusive of sinking fund requirements) that is due within one year from the date of the balance sheet is usually included in Current and Accrued Liabilities. Long-Term Debt to be refinanced within one year should continue to be reported under Long-Term Debt.

**Long-Term Debt Due Within One Year** See *Current Maturities* and *Long-Term Debt*.

**Long-Term Financing** Refers to the issuance and sale of debt securities with a maturity of more than one year, and preferred or common stock for the purpose of raising new capital or refunding outstanding securities.

**Loop** An electrical circuit that provides two sources of power to a load or substation so that if one source is de-energized the remaining source continues to provide power.

**Loop Flows** The unscheduled use of another utility's transmission resulting from movement of electricity along multiple paths in a grid, whereby power, in taking a path of least resistance, might be physically delivered through any of a number of possible paths that are not easily controlled. See also *Parallel Flow*.

**Loss (Losses)** Total electric energy losses in the electrical system. The losses consist of transmission, transformation, and distribution losses between supply sources and delivery points. Electric energy is lost primarily due to heating of transmission and distribution elements.

**Average** The total difference in energy input and output or power input and output (due to losses) averaged over a time interval and expressed either in physical quantities or as a percentage of total input.

**Demand** The kilowatts lost in the operation of an electric system at any instant.

**Energy** The kilowatthours lost in the operation of an electric system.

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**Pancake Rates (Pancaking)** See *Rates, Transmission Pricing* — *Pancake Rates*.

**Paper** Colloquially, refers to securities of a particular industry or sector. May also refer to commercial paper, in money market discussions.

**Par** (1) Price at 100%; (2) Face value assigned by a corporation to common, preferred or preference stock; (3) The principal amount or denomination at which the obligor issuing corporation contracts to redeem a debt security at maturity. This amount is stated on the face of the debt security.

**Parallel Flow** The flow of electricity according to the laws of physics: electricity flows on all available transmission paths between generators and points of use. The actual flow of electricity is referenced as flowing "parallel" to contractual paths (transmission paths) that are reserved for the flow of electricity, but are not actually used.

**Parallel Operation (Parallel Generation)** The operation of a customer-owned generator while connected to the utility's grid. Parallel operation may be required solely for the customer's operating convenience or for the purpose of delivering power to the utility's grid. This term is often used in reference to distributed generation.

**Paralleling Equipment** Generating and protective equipment system that interfaces and synchronizes a customer-owned generator with the distribution system facility. This term is often used in reference to distributed generation.

**Partial Outage** See *Outage* — *Partial Outage*.

**Partial Requirements** A wholesale customer who purchases, or is committed to purchase, only a portion of its electric power generation need from a particular entity. There often is a specified contractual ceiling on the amount of power that a partial requirements customer can take from the entity. In contrast, a "requirements" or "full requirements" customer is committed to purchase all of its needs from a single entity and generally would not have a ceiling on the amount of power it can take.

**Participation Certificate (PC)** A certificate representing an undivided interest in a pool of conventional mortgages. Principal and interest payments on the mortgages are passed through to the certificate holders each month. Participation certificates qualify as loans secured by an interest in real property and as qualifying real property loans with the respect to certain thrift institutions.

**Particulate** A particle of solid or liquid matter, also called soot, dust, and aerosols. Emissions of particulate matter are regulated by the Clean Air Act.

**Payout Ratio** The ratio of cash dividends on common stock to earnings available for common stock, based either on the actual dividends declared for a period or on the current indicated annual dividend rate.

**PCBs (Polychlorinated biphenyls)** A group of toxic, persistent chemicals used in electrical transformers and capacitors. Further sale or new use was banned in 1979 by law.

with another system or a substation where the transmission provider's transmission and distribution systems are connected to another system.

**Point of Receipt** A point on the electrical system where an entity receives electricity from a power supplier or wheeling entity. This point could include an interconnection with another system or generator busbar.

**Point Source** A stationary location where pollutants are discharged.

**Point-to-Point Transmission** A service that allows the customer to utilize a specified amount of transmission capacity to transmit power from designated points of receipt to designated points of delivery. A separate service agreement would be required and a separate charge generally would be paid for each pairing of a receipt point with a delivery point under this service.

**Poison** In reactor physics, a material other than fissionable material in the vicinity of the reactor core that will absorb neutrons to control or stop a nuclear reaction. The addition of poisons, such as control rods or boron, into the reactor is said to be an addition of negative reactivity.

**Pole Miles Of Line** Miles measured along the line of poles, structures, or towers carrying electric conductors regardless of the number of conductors or circuits carried. For underground lines, see *Conduit Bank Miles*.

**Pollutant** An impurity or contaminant emitted to the environment. It may be a solid, liquid, gas, or dissolved material. Environmental standards permit limited emissions of pollutants, because at low levels they are determined to be of negligible concern.

**Pooling Company (POOLCO)** An independent power pool company that operates for a group of utilities the electric transmission grid and may in some cases dispatch generating plants by buying and selling wholesale power. Although the individual utilities might continue to own portions of the transmission grid, the POOLCO would continually coordinate transmission use and may take bids from generators offering to sell electricity at specific prices. The POOLCO would then purchase the required energy and resell it to the electric distribution operations of the utilities at prices that reflect actual purchase costs that may vary by time of day.

**Postage Stamp Rates** See *Rates, Transmission Pricing — Postage Stamp Rates*.

**Power (Electric)** The time rate of generating, transferring, or using electric energy, usually expressed in kilowatts (kW).

**Apparent** The product of the volts and amperes of a circuit. This product generally is divided by 1,000 and designated in kilovoltamperes (kVA). It comprises both real and reactive power.

**Dump** See *Electric Energy — Dump*.

**Firm** Power or power-producing capacity intended to be available at all times during the period covered by a commitment, even under adverse conditions.

**Interruptible** Power made available under agreements that permit curtailment or cessation of delivery by the supplier. See also *Demand — Interruptible*.



**Renewable Resources** Any source of energy that is continually available or that can be renewed or replaced. Examples include wind, solar, geothermal, hydro, photovoltaic, wood and waste. Nonrenewable energy sources include coal, oil, and gas, that all exist in finite amounts.

**Replacement Cost** An estimate of the cost to replace the existing facilities either as currently structured or as redesigned to embrace new technology with facilities that will perform the same functions. This method recognizes the benefits of presently available technology in replacing the system. For example, a number of small generating units may be replaced with a single large unit at lower unit costs and greater efficiency. See also *Reproduction Cost*.

**Replacement Power** Power that a utility must purchase when one of its own plants (or other long-term suppliers) experiences an outage or is otherwise unavailable.

**Replacements** The substitution of a unit of Utility Plant for another unit generally of a like or improved character.

**Repowering** A means of increasing the output and efficiency of conventional thermal generating facilities. For example, adding combustion turbines to supplement or replace steam from fuel combustion used to power steam turbines.

**Reprocessing** See *Recycling*.

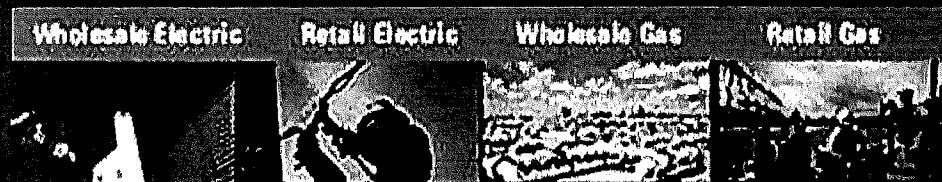
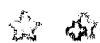
**Reproduction Cost** The estimated cost to reproduce existing properties in their current form and capability at current cost levels. The mechanics may involve a trending of the original cost dollars to reflect current costing factors, or they may involve a property appraisal accompanied by estimates to reconstruct the facilities. The former is most often utilized as Rate Base.

**Repurchase Agreements (Repo)** A means of temporarily adding to monetary reserves. The Fed buys government securities under a contract to sell them back at an agreed price and date. Generally repurchase agreements mature within one to seven days (maximum is 15 days). Dealers may usually repurchase before the maturity of the agreement if they wish. Interest rate is determined by auction.

**Requirements Service** Service that the supplier plans to provide on an ongoing basis (i.e., the supplier includes projected load for this service in its system resource planning). In addition, the reliability of requirements service must be the same as, or second only to, the supplier's service to its own ultimate customers.

**Rerating** A change in the capability of a generator due to a change in conditions such as age, upgrades, auxiliary equipment, cooling, etc.

**Reregulation** The design and implementation of regulatory practices to be applied to the remaining regulated entities after restructuring of the vertically-integrated electric utility. The remaining regulated entities would be those that continue to exhibit characteristics of a natural monopoly, where imperfections in the market prevent the realization of more competitive results, and where, in light of other policy considerations, competitive results are unsatisfactory in one or more respects. Regulation could employ the same of different regulatory practices as those used before restructuring.



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### **Partial Requirements**

**NAESB Standard:** NO

**NAESB Standard Reference number:**

<b>Source</b>	<b>Definition</b>
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McGuire Woods	A sale of power to a purchaser in which the seller pledges to meet a specified part of the purchaser's requirements.
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