Exhibit No.:

Issue: Ameren Missouri

**Transmission Alternatives** 

Witness: Adam C. McKinnie

Sponsoring Party: MO PSC Staff

Type of Exhibit: Rebuttal Testimony

Case No.: EO-2011-0128

Date Testimony Prepared: September 14, 2011

#### MISSOURI PUBLIC SERVICE COMMISSION

# REGULATORY REVIEW DIVISION TARIFF, SAFETY, ECONOMIC AND ENGINEERING ANALYSIS

#### REBUTTAL TESTIMONY

**OF** 

#### **ADAM C. McKINNIE**

### UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

**CASE NO. EO-2011-0128** 

Jefferson City, Missouri September 2011

\*\* Denotes Highly Confidential Information \*\*



#### BEFORE THE PUBLIC SERVICE COMMISSION

#### OF THE STATE OF MISSOURI

In the Matter of the Application of Union	)	*1
Electric Company for Authority To	)	
Continue the Transfer of Functional	)	
Control of Its Transmission System to the	)	Case No. EO-2011-0128
Midwest Independent Transmission	)	
System Operator, Inc.	)	

#### AFFIDAVIT OF ADAM C. McKINNIE

STATE OF MISSOURI	)
	) ss
COUNTY OF COLE	)

Adam C. McKinnie, of lawful age, on his oath states: that he has participated in the preparation of the following Rebuttal Testimony in question and answer form, consisting of 38 pages of Rebuttal Testimony to be presented in the above case, that the answers in the following Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

Adam C. McKinnie

Subscribed and sworn to before me this 14th day of September, 2011.

SUSAN L. SUNDERMEYER
Notary Public - Notary Seal
State of Missouri
Commissioned for Callaway County
My Commission Expires: October 03, 2014
Commission Number: 10942086

Notary Public

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#### REBUTTAL TESTIMONY

**OF** 

#### **ADAM C. McKINNIE**

## UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

#### **CASE NO. EO-2011-0128**

#### I. Introduction

- Q. Please state your name and business address.
- A. My name is Adam C. McKinnie. My business address is 200 Madison Street, Jefferson City, MO 65102-0360.
  - Q. By whom are you employed?
- A. I am employed by the Missouri Public Service Commission (MoPSC or Commission) as the Chief Utility Economist, specializing in transmission issues.
  - Q. What is your work history at the Commission?
- A. I joined the Missouri Public Service Commission in April 2002, as a Regulatory Economist in the Economic Analysis Section of the Telecommunications Department. I began working on demand-side energy issues in October 2007, as a half-time member of the Economic Analysis Section of the Energy Department. In June 2008, I began working full-time on energy issues in the new Resource Analysis Section of the Energy Department, specializing in demand-side issues. In 2008, I also began working on transmission issues, including those involving regional transmission organizations and independent system transmission operators (RTOs and ISOs¹). In January 2010, I took my current position of Chief Utility Economist, specializing in transmission issues, especially

<sup>&</sup>lt;sup>1</sup> A Glossary of terms can be found in Schedule ACM-14.

System Operator (MISO).

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Q. What is your educational background?

A. I hold a Bachelor of Arts degree in English and Economics that I received from Northeast Missouri State University (now called Truman State University) in May 1997. I also hold a Master of Science degree in Economics (with electives in Labor, Tax, and Industrial Organization) that I received from the University of Illinois in May 2000.

those involving the Southwest Power Pool (SPP) and the Midwest Independent Transmission

- Q. Have you testified in any previous cases before this Commission?
- A. Yes, I have. A list of the cases I have filed testimony in is attached as Schedule ACM-1.

#### II. **Executive Summary**

- Q. What is the purpose of your testimony?
- The purpose of my testimony is to respond to: (1) the Direct Testimony of A. Ameren Missouri Witness Ajay K. Arora ("Arora Direct") filed on July 29, 2011; (2) the "Verified Application to Extend Permission and Authority For Participation in Regional Transmission Organization" filed by Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri") on November 1, 2010 ("November 2010 Application"); (3) the "Motion for Leave to Amend Verified Application to Extend Permission and Authority for Participation in Regional Transmission Organization" and the "Amended Verified Application to Extend Permission and Authority for Participation in Regional Transmission Organization" ("Amended Application"), both filed on August 10, 2011; and (4) the "Order Directing the Commission's Staff to Respond to Questions from the Commission in its Prefiled Testimony" issued by the Commission on August 23, 2011.

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My testimony will explain why I do not support the Amended Application of Ameren Missouri for the following reasons: 1) The Amended Application, while adequately representing the interests of Ameren Missouri and its stockholders, does not contain sufficient protections for the interests of Ameren Missouri ratepayers; 2) The Amended Application attempts to unreasonably shift the responsibility of persuasion from Ameren Missouri to the Commission and entities other than Ameren Missouri regarding whether Ameren Missouri should continue to remain a member of the Midwest Independent Transmission System Operator (MISO) for an indefinite period of time, especially when using updated inputs to a study originally conducted in Case No. EO-2008-0134, filed on November 1, 2007 (Study is dated October 11, 2007); 3) The Amended Application does not outline the terms and conditions by which the continued Ameren Missouri membership in MISO is not detrimental to the public interest; and, 4) The Amended Application does not sufficiently address issues related to Ameren Missouri affiliates constructing and owning transmission as currently addressed in the Stipulations and Agreements in Case Nos. EO-2003-0271 and EO-2008-0134.

Additionally, my testimony will explain what terms would be necessary for Staff to consider a longer duration of time for Ameren Missouri to remain a member of MISO before it is required to apply for a further continuation of Commission authorization. Finally, my testimony will also explain why an indefinite extension is not appropriate at this time.

#### III. Ameren Missouri's Applications for Continued MISO Membership

Q. Do you generally agree with Mr. Arora's description of the updating of the cost benefit analysis performed by CRA International, dated October 11, 2007, in the EO-

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Amended Application:

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Term. Ameren Missouri will be given permission and authority to continue its participation in the Midwest ISO through May 31, 2015 (the "Initial Term"). Ameren Missouri shall also be given permission and authority to continue its Midwest ISO participation for successive periods of one-year each (each such one year period to end May 31 of each successive year, and to be referred to hereinafter as an "Extended Term") unless such permission and authority is terminated by the Commission as described below. With respect to the Initial Term, commencing January 1, 2013, but in no event later than June 1, 2013, the Commission on its own motion, or on motion of any party to this case, can open a case regarding whether Ameren Missouri's permission and authority to participate in the Midwest ISO should extend beyond May 31, 2015. With respect to whether Ameren Missouri's participation and authority to participate in the Midwest ISO should be terminated as of the end of any Extended Term, the Commission on its own motion, or on motion of any party to this case, in either case made at least two years prior to the end of any Extended Term, can open a case regarding whether Ameren Missouri's permission and authority to participate in the Midwest ISO should extend beyond the end of such Extended Term.

Commission or another party, as described in the following paragraph from page 8 of the

- Q. Is there any significance to Ameren Missouri having not brought up this proposal, seeking an "indefinite" extension of permission to remain in MISO, until the filing of its Amended Application?
- A. Yes. Staff primarily agreed to the use of the 2007 CRA Study from Case No. EO-2008-0134 with updated inputs based on the limited 20-month extension of participation period being sought by Ameren Missouri. Staff would not have provided the same input during the stakeholder discussions regarding the appropriateness of utilizing the 2007 CRA Study if the length of time for the extension, including the terms and conditions, discussed in the Amended Application had been proposed by Ameren Missouri during the "Tentative Analysis" discussion described in paragraph 9 of the Amended Application:

Paragraph 16 of the 2008 Stipulation outlined a process whereby Ameren Missouri would consult with the Stakeholders regarding an additional cost-benefit analysis to be associated with its November 1, 2010 filing. In summary, the process that was outlined called for Ameren Missouri to advise

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the Stakeholders of the "Tentative Analysis" it proposed to use for its November 1, 2010 filing, to consult with the Stakeholders about it, to advise the Stakeholders about the "Actual Analysis" Ameren Missouri proposed to use for its November 1, 2010 filing and to receive input on the same from the Stakeholders, and to ultimately make this filing together with its Actual Analysis, having taken into account the input of the Stakeholders. Ameren Missouri followed the process outlined in ¶ 16 of the 2008 Stipulation by timely providing the Stakeholders its "Tentative Analysis." Ameren Missouri followed-up on providing its Tentative Analysis by consulting with the Stakeholders in meetings/conference calls and by providing workpapers that underlie the Tentative Analysis, as requested. On April 26, 2010, Ameren Missouri notified the Stakeholders in accordance with the 2008 Stipulation that Ameren Missouri intended for its Tentative Analysis to be used as its Actual Analysis for purposes of this filing. That notification was followed by an additional meeting/conference call in August 2010, which has been followed by additional communications with the Stakeholders.

Staff would also note that since the times of the preliminary discussions, as described in the Amended Application excerpt above, several issues have risen that were not discussed during the temporary analysis, such as the structure of the recent MISO Resource Adequacy construct tariff filing, filed on July 20, 2011 in Federal Energy Regulatory Commission ("FERC") Docket ER11-4081<sup>2</sup> and Entergy's announced plan to join MISO (announced April 25, 2011), among other new issues. When Ameren Missouri was proposing an 18-month extension, the partial updating of the prior study seemed reasonable for such a limited extension of time. However, with the possibility of an indefinite extension of permission, the limited updating of the prior study is not appropriate. Recent changes to MISO, including the possible integration of Entergy and the July 2011 MISO Resource Adequacy tariff filing at FERC, make the 2007 CRA Study lacking in sufficient detail to analyze the full spectrum of issues facing MISO members in the near future, much less an indefinite future. For an indefinite extension of permission for Ameren Missouri to remain a member of MISO, Staff

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<sup>&</sup>lt;sup>2</sup> Nothing in this testimony, including assumptions regarding the tariff filing being in place, should be construed to show support for the MISO Resource Adequacy tariff filing in ER11-4081

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would recommend a new cost benefit study, not one based on updated inputs to the 2007 CRA Study, with that new study analyzing a time period of no more than ten years.

#### Q. Footnote 1 on page 6 of the November 2010 Application states:

The Tentative Analysis and the Actual Analysis presented to stakeholders did not examine the Midwest ISO versus SPP case given that it is clear that one of the most significant benefits from RTO participation for AmerenUE is the ability to trade power in Day 2 energy markets and, as noted, SPP has no such market and does not plan to implement one until 2014, at the earliest.

Do you generally agree with the above statement?

A. Generally, yes. The cost benefit analysis provided in Mr. Arora's Direct Testimony, Schedule AA-1, with the 2007 CRA Study using updated inputs, does show the greatest amount of benefit coming from the MISO Day 2 market. Further, SPP currently has no such market, although it has recently received SPP Board approval to create a Day 2 Market, and it has begun finalizing tariff changes in order to implement one. An SPP press release from April 27, 2011 states that the "Integrated Marketplace is scheduled to go live in March 2014." However, the relative certainty of SPP implementing a Day 2 Market is an excellent reason to have Ameren Missouri perform a full analysis to determine the most prudent course of action in terms of RTO membership, including the proper terms and conditions. SPP currently plans to have its Day 2 market operational in 2014, as noted on page 4 of the report titled "An Evaluation of the Alternative Transmission Arrangements Available to the Entergy Operating Companies and Support for Proposal to Join MISO" filed by Entergy Arkansas, Inc. before the Arkansas Public Service Commission on May 12, 2011

<sup>&</sup>lt;sup>3</sup> http://www.spp.org/publications/Marketplace Funding Approved.pdf

	Rebuttal Testimony of Adam C. McKinnie
1	in Docket No. 10-011-U prepared by CRA evaluating Entergy's options to determine
2	Entergy's future RTO membership (CRA 2011 Entergy Study).4
3	Q. Does the cost benefit analysis in Mr Arora's Direct Testimony, with the
4	updated inputs, address the Entergy or Resource Adequacy issues you previously raised?
5	A. Only on a very limited basis. As described below, Staff issued Data Requests
6	in order to gather further information regarding the possible impact of Entergy and the July
7	2011 Resource Adequacy filing.
8	Q. What Data Requests did Staff issue regarding the potential effect of the
9	Resource Adequacy tariff filing and the Entergy situation on the updated inputs to the cost
10	benefit analysis?
11	A. Staff issued Staff Data Requests 13, 19, 24, 27, and 29. Those Staff Data
12	Requests and Ameren Missouri responses are attached as Schedules ACM-2 (Staff Data
13	Request 13), ACM-3 (Staff Data Request 29), ACM-4 (Staff Data Request 24), ACM-5 (Staff
14	Data Request 27), and ACM-6 (Staff Data Request 29).
15	Q. Based on the responses to those Staff Data Requests, did Ameren Missouri
16	make any adjustments in the 2011 updated inputs as presented in Arora Direct Testimony
17	Schedule AA-1 to account for the MISO Resource Adequacy tariff filing at FERC?
18	A. No, it did not. When asked in Staff Data Request 13 if it had performed a cost
19	benefit analysis regarding the impact of the Resource Adequacy tariff filing, Mr. Arora
20	responded in part that Ameren Missouri did not believe the Resource Adequacy tariff filing
21	would not materially affect the net benefit reflected in the cost-benefit analysis:
22 23	However, Ameren Missouri does not believe that the MISO Resource Adequacy Construct (RAC) as filed with the FERC would materially affect

<sup>&</sup>lt;sup>4</sup> The CRA 2011 Entergy Study can be found online at <a href="http://entergy.com/futurepower/pdf/Evaluation\_Report.pdf">http://entergy.com/futurepower/pdf/Evaluation\_Report.pdf</a>

the net benefit reflected in the cost-benefit analysis included with my direct testimony as it is expected to not impact energy prices, and there is no indication that the price for capacity will be materially changed by the RAC. Moreover, because the cost-benefit analysis has assumed MISO participation causes a loss of incremental capacity sales, any increase in capacity prices arising from the new construct would only serve to further increase the net benefit of staying within the MISO as Ameren Missouri is long capacity.

- Q. Do you agree with Ameren Missouri's assessments as relayed in the excerpt from DR 13 above?
- A. For the threeyear term of the cost benefit analysis, the assessments are most probably accurate. However, for periods beyond the three years, information is not available to analyze the accuracy of the assessments.
- Q. Based on the responses to the aforementioned Staff Data Requests, has Ameren Missouri made any adjustments to the 2011 updated inputs presented in Arora Direct Testimony Schedule AA-1 to account for Entergy's potential membership in MISO?
- A. Yes, but not very many. Mr. Arora describes an adjustment to the administrative fee due to Entergy joining MISO beginning on page 5, line 1 of his Direct Testimony:
  - iv) Administrative Charge Savings: This value represents Ameren Missouri's current budgeted amount for its share of the administrative costs of operating the MISO. This amount is calculated assuming the scheduled exit from the MISO of the First Energy entities, Duke Ohio and Duke Kentucky, and also assuming the planned entry into the MISO of Entergy in 2014.
- Q. What is the amount of adjustment to the inputs that would need to be made if Entergy does not join MISO?
- A. This question was asked and responded to through Staff Data Request 27 as follows:

If Entergy does not become a member of MISO during the study period, what adjustments will need to be made to the updated cost-benefit study in Arora Direct Schedule AA-1 to reflect this event?

	Rebuttal Testimony of Adam C. McKinnie
	RESPONSE Prepared By: Ajay K. Arora Title: Director – Corporate Planning Date: August 29,
1 2 3 4	The Administrative Fee savings in 2014 would be increased by approximately \$1 million - thus decreasing the NPV benefit of remaining in MISO by approximately \$700,000.
5	Q. Does Ameren Missouri comment in its responses to Staff Data Requests as to
6	whether the projected savings in administrative fee indicate certainty that Entergy will join
7	MISO?
8	A. Yes. Mr. Arora's response to Staff Data Request 29 indicates, in part:
9 10	Ameren Missouri's reduction of the projected savings in administrative fees is not an indication of the certainty that Entergy will join MISO.
11	Q. Did Staff issue any Data Requests regarding any additional adjustments to the
12	inputs to the cost benefit study due to Entergy possibly joining MISO?
13	A. Yes, Staff did. Staff's Data Request 24 question and Ameren Missouri's
14	response follow:
15 16 17	Were any off-system sales, or capacity sales, to Entergy modeled in the updated 2012-2014 cost-benefit study? If yes, please describe the assumptions used for the addition of Entergy.
10	RESPONSE Prepared By: Ajay K. Arora Title: Director – Corporate Planning Date: August 29, 2011
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O. Did Staff issue any Data Requests regarding any other possible adjustments to the updated inputs regarding Entergy?

Yes, Staff issued Data Request 19: A.

On Page 5, Line 1, Mr. Arora discusses Administrative Charge Savings, and at Line 4 he says, "also assuming the planned entry into the MISO of Entergy in 2014." What other areas, if any, of the cost-benefit study in Arora Direct Testimony Schedule AA-1 were adjusted to take into account the "planned entry into the MISO of Entergy in 2014?"

#### **RESPONSE**

Prepared By: Ajay

K. Arora

Title: Director -**Corporate Planning** Date: August 19,

2011

None.

- Q. Based on the above Staff Data Requests and Ameren Missouri's responses, what impact does Ameren Missouri expect there to be in the three-year study period from either the MISO Resource Adequacy tariff filing or the possibility of Entergy joining MISO?
- A. According to its responses, Ameren Missouri expects very little impact – only the administrative fee change, and a statement that the inclusion in the study of Entergy is not an "indication of the certainty that Entergy will join MISO".
- Q. Does Staff think this limited expected impact regarding potential Entergy membership in MISO and the Resource Adequacy issue is reasonable?
- A. For the three-year study period originally intended to support an eighteenmonth or twenty-month extension, yes, the limited impact is reasonable. However, for an indefinite extension of Ameren Missouri membership in MISO, the limited impact would not be reasonable. As explained elsewhere in this testimony, Staff recommends Ameren Missouri

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use a larger study period of up to ten years, especially if it wishes a longer period of permission of Commission authorization to remain in MISO.

#### IV. **Proper Study Period Length**

- Q. Does the three-year study period appear to be sufficient in analyzing issues such as Resource Adequacy and the possible integration of Entergy?
- A. It may not be. The Entergy and Resource Adequacy issues are examples of those issues where decisions are being made now but whose impacts may not be felt until more than three years from now. Further, in terms of looking at what costs can possibly be avoided by Ameren Missouri potentially ending its membership with MISO, three years does not appear to be the right period of time. It appears to take approximately one to two years to terminate MISO membership<sup>5</sup>, thus making it impossible to avoid any costs in approximately the first two years of a three-year study period.

Note that Ameren Missouri's "Motion for Leave to Amend Verified Application to Extend Permission and Authority for Participation in Regional Transmission Organization", filed August 10, 2011, implicitly acknowledges this approximate two-year period, as on page 3, paragraph 4 it asks for any motion to end an "Extended Term come two years before the end of the Extended Term:

With respect to whether Ameren Missouri's permission and authority to participate in the Midwest ISO should be terminated as of the end of any Extended Term, the Commission on its own motion, or on motion of any party to this case, in either case made at least two years prior to the end of any Extended Term (that is, assuming permission continues beyond the Initial Term), can open a case regarding whether Ameren Missouri's permission and authority to participate in the Midwest ISO should extend beyond the end of such Extended Term.

<sup>&</sup>lt;sup>5</sup> For example, FirstEnergy announced it would leave MISO on August 24, 2009, and planned to transfer all of its assets to PJM on June 1, 2011, paying an exit fee of approximately \$35M.

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Rebuttal	Testimony	of
Adam C	McKinnie	

If it takes approximately two years to "change course" regarding RTO membership, and the costs and benefits during that approximate two-year period are going to be incurred no matter what, so only looking one year beyond that "sunk period" on all issues may not be the most prudent choice.

- Q. Can you point to an example of a recent study regarding a utility joining an RTO that lasts longer than three years?
- A. Yes, I can. The CRA 2011 Entergy Study regarding Entergy potentially joining MISO, joining SPP, or remaining an independent company covered a ten year period.<sup>6</sup>
- Q. What is Staff's recommendation regarding the proper study period for determining the prudency of Ameren Missouri's membership in MISO on a going forward basis from this case?
- A. Staff's recommendation at this time is that there should be a list of long-term issues identified within the analysis process of determining the best path for Ameren Missouri going forward. These long-term issues should be quantified as best as possible and should be useful on a going forward basis when there are more viable choices available to Ameren Missouri regarding RTO membership; that is, choices with a greater benefit to Ameren Missouri ratepayers and shareholders. An example of a more viable choice / quality alternative to Ameren Missouri's current MISO membership may be when SPP is expected to have its Day 2 Market established in 2014.

For example, if SPP currently had a Day 2 market established and in operation, analysis may show it is a viable and better alternative to Ameren Missouri's current

See slide 2 at <a href="http://www.spp.org/publications/SPP%20Entergy%20CBA%20Summary%20of%20Findings.pdf">http://www.spp.org/publications/SPP%20Entergy%20CBA%20Summary%20of%20Findings.pdf</a>. The full CRA study can be found at <a href="http://entergy.com/futurepower/pdf/Evaluation">http://entergy.com/futurepower/pdf/Evaluation</a> Report.pdf

membership in MISO. Since it takes approximately two years to "change course" in RTO membership, the analysis would only provide a one-year comparison between SPP and MISO since the change would be decided now, but not effectuated until year 3. A longer study period will provide much more detail about the long-term effects of a prudent decision regarding RTO membership.

Q. Is it proper to only update the information for the 2007 CRA study done originally in the EO-2008-0134 case over a three-year study period, versus an Independent Coordinator of Transmission (ICT) alternative<sup>7</sup>, considering the indefinite extension of permission for Ameren Missouri to remain a member of MISO requested in the Ameren Missouri's Amended Application?

A. No, it is not. The current analysis is for the MISO alternative in years 2012-2014 versus an ICT alternative. It is highly unlikely that any future analysis comparing MISO to the next best alternative for Ameren Missouri, its stockholders, and its ratepayers would be an analysis comparing MISO to an ICT alternative; thus, Staff cannot support an indefinite period of Commission permission sought by Ameren Missouri in the Amended Application. The alternative studied in the present analysis most likely will not be the best case scenario in the near future, especially assuming the indications that SPP's Day 2 market will come on line in 2014.

Staff can support an extension of permission for Ameren Missouri to remain a member of MISO to May 15, 2015 (a three-year extension similar to that in the EO-2008-0134 case). Staff would support this extension of authority accompanied with a requirement that Ameren Missouri, before the end of the three-year permission period, perform a full cost-benefit study

<sup>&</sup>lt;sup>7</sup> Ameren Missouri would belong to no RTO in an ICT arrangement

Rebuttal Testimony of Adam C. McKinnie

such as the 2007 CRA Study in Case No. EO-2008-0134. The full study should include an analysis regarding MISO and the next best option. Assuming the MISO Resource Adequacy construct is to some extent in place, the study should begin with the inputs from the planned 2013 Planning Reserve Auction The study should also include some analysis of the SPP Day 2 market expected to be online in 2014.

- Q. Even if SPP's Day 2 Market does not come on line by 2014, should there be analysis completed to determine Ameren Missouri's RTO membership path?
- A. Yes, there should be more analysis. Cases such as the instant one are about more than just whether Ameren Missouri is a member of MISO or some other RTO or an independent transmission entity. They are also about what terms and conditions, if any, should be placed on Ameren Missouri's participation in such organizations. The question for this case is not just, "Is MISO a good opportunity for Ameren Missouri and its ratepayers?" The Commission should also ask, "What is the best opportunity available for Ameren Missouri and its ratepayers?", and "How can the Commission ensure the proper protections for both Ameren Missouri stockholders and ratepayers." Although the current MISO membership option with the Day 2 market is a good option, it is prudent to consider other options, including whether MISO membership under a different set of terms and conditions would better protect the interests of ratepayers and stockholders.

Staff recommends for the next Commission case regarding Ameren Missouri's RTO membership options there be a cost benefit analysis with at least a five-year study period, but no more than the ten years performed in the CRA Entergy study. A five-year study period would provide at least three years of costs that could be avoided, assuming a withdrawal process would take two years. It may be entirely possible that approximately three years from

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now a better alternative exists for Ameren Missouri because of circumstances that cannot be

foreseen in this case.

### V. Changes in the Amended Application

Q. Can you describe the change in the request posed by the Amended Application and described in brief in Mr. Arora's Direct Testimony?

A: Yes, I can. First, Mr. Arora describes, on page 13 of his Direct Testimony, beginning on line 6, his reasoning for wanting to end a permission extension at the end of a planning year, not a calendar year:

First, I would note that this analysis has been done on a calendar year basis – consistent with the prior studies. However, the MISO operates on a planning year basis which runs from June 1 of a given year, through May 31 of the following year. Auction Revenue Rights ("ARRs") are allocated to market participants on this planning year basis, as are the associated Financial Transmission Rights ("FTRs"). Should Ameren Missouri seek to exit the MISO in the middle of the planning year, the underlying value of these ARRs and FTRs would be impacted, and would represent a disruption to market participants – including municipal utilities and cooperatives which hold such rights in the Ameren Missouri region – with currently unknown consequences. Accordingly, it would be appropriate to extend the Company's participation in the MISO to coincide with a MISO planning year, in this case to at least May 31, 2015.

Similar language is included in the Amended Application, on page 7, paragraph 16, regarding the propriety of May 31 as the end of a permission period.

- Q. Does the request to have the permission end at the end of a planning year make sense?
- A. Yes, it does. Staff would be supportive of such a change to the end of a "permission period." However, it is Staff's opinion that analysis can and should begin sooner than the end of the permission period, taking into account the results of a Planning Resource Auction intended to set Resource Adequacy requirements.

Q. What other changes from the November 2010 Application are described in brief in Mr. Arora's Direct Testimony and described further in the Amended Application?

A. There are significant changes regarding the length of time of the permission period and who has the responsibility of establishing whether Ameren Missouri's continued MISO membership would be detrimental to the public interest. Mr. Arora describes these additional changes in his Direct Testimony beginning on page 13, line 16:

Additionally, I believe it would be appropriate for the Commission to consider transitioning from a process of frequent re-application relating to continued MISO participation to a process one where the permission to participate continues until such time as substantial evidence exists that continued participation would be detrimental to the utility and its customers. It is Ameren Missouri's opinion that the seven-plus years of participation in the MISO and the experience gained with the MISO's market have provided sufficient evidence to provide the Commission, the Staff and other stakeholders with a level of confidence in the continuation of benefits, absent a material change in market rules, at which time it may be appropriate for the Commission to open a proceeding to investigate if our continued participation in the MISO continues to pose no detriment to the public interest. [footnote omitted]

Paragraph 4, on page 3, of the Amended Application describes who has the responsibility of establishing, in future cases, whether Ameren Missouri's participation in MISO would be detrimental to the public interest:

4. Under the Amended Application, the default would become continued Midwest ISO participation instead of the default being a short, fixed term of participation that requires repeated cases even where no event has occurred that materially impacts the question of whether participation in the Midwest ISO would be detrimental to the public interest. However, so that material changes that might impact that question can be addressed, the Amended Application reflects a process whereby commencing January 1, 2013, but in no event later than June 1, 2013, the Commission on its own motion, or on motion of any party to this case, can open a case regarding whether Ameren Missouri's permission and authority to participate in the Midwest ISO should extend beyond May 31, 2015. Thus, the relief requested in the Amended Application provides a mechanism to terminate the permission and authority by a date certain, if it is determined that continued participation beyond that date would be detrimental to the public interest. With respect to whether Ameren Missouri's permission and authority to participate in the Midwest

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28 29 ISO should be terminated as of the end of any Extended Term, the Commission on its own motion, or on motion of any party to this case, in either case made at least two years prior to the end of any Extended Term (that is, assuming permission continues beyond the Initial Term), can open a case regarding whether Ameren Missouri's permission and authority to participate in the Midwest ISO should extend beyond the end of such Extended Term.

- Q. What is the approval standard of the current case, under the terms of the EO-2008-0134 Stipulation and Agreement?
  - A. From page 8 of the EO-2008-0134 Stipulation and Agreement:
  - 14. Approval/Term. The Signatories agree that the MoPSC should conditionally approve, on an interim basis, AmerenUE's continued RTO participation in the Midwest ISO substantially as described in AmerenUE's filing dated November 1, 2007 on the basis of finding that, subject to the conditions and modifications set forth below, said participation is not detrimental to the public interest. [italics added]
- Q. Can you explain the differences between the language in the EO-2008-0134 Stipulation and Agreement and in Mr. Arora's Direct Testimony?
- A. Yes. I can. My Counsel will discuss the legal issues, but it is my understanding that in the EO-2008-0134 Stipulation and Agreement language, Ameren Missouri has the responsibility of establishing that Ameren Missouri continuing in MISO would not be detrimental to the public interest. In the Amended Application, parties other than Ameren Missouri have the responsibility of establishing that Ameren Missouri continuing in MISO would be detrimental to the public interest.
  - Why does this change matter? Q.
- It matters for several reasons. First, Ameren Missouri is the party that A. possesses the information about Ameren Missouri. In order for an entity other than Ameren Missouri to put forth a case regarding Ameren Missouri's continued MISO membership, it will have to go through the long, arduous, and potentially expensive task of extracting data

## Rebuttal Testimony of Adam C. McKinnie and information from

and information from Ameren Missouri and MISO. This may require the entity to hire outside consultants in order to view highly confidential data. Additionally, that entity will have to go through the effort of developing a full model of Ameren Missouri's activities in the MISO system.

Most importantly, however, the case would not be about the best choice in terms of RTO membership, or the proper terms and conditions to allow the Commission information to balance the interests of Ameren Missouri shareholders and ratepayers. Instead, the case would be about whether a continued action would be harmful. That is, neither the process for considering the terms and conditions of Ameren Missouri's continued participation in MISO, nor the process for selecting the optimal RTO / ISO membership option for Ameren Missouri, are discussed in the Amended Application.

Instead of relying on a 2007 model that has been combined with 2010 and later 2011 inputs to determine whether a longer extension is appropriate, Staff recommends Ameren Missouri utilize an outside expert to construct a full study similar to what was done in the EO-2008-0134 case. This will allow Ameren Missouri, and the Commission, to analyze the best RTO option and what should be the terms and conditions of Ameren Missouri's RTO / ISO membership.

- Q. Other than the change to the duration of permission to remain a MISO member and the change to responsibility for establishing whether Ameren Missouri's continuing in MISO would be detrimental to the public interest, are there other changes from the EO-2008-0134 Stipulation and Agreement to the Amended Application?
- A. Yes, there are. In the Amended Application there is no "Withdrawal" paragraph (paragraph 20 in the 2008 Stipulation) defining how far in advance the Commission

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must issue an order for Ameren Missouri to get out of MISO. There is also no language in the Amended Application related to Article Five of the Service Agreement which outlines the procedure for giving notice to MISO regarding intent to withdraw from MISO.

The Amended Application contains no language requiring the term of MISO membership for Ameren Missouri to be "interim and conditional", as is discussed in paragraph 14 of the 2008 Stipulation and Agreement. Further, the 2008 Stipulation and Agreement notes that Ameren Missouri is engaged in discussions to mitigate risks, and will report back to stakeholders (paragraph 15, 2008 Stipulation and Agreement). The terms in the Amended Application make no such proposal.

Additionally, Paragraph 16 of the 2008 Stipulation and Agreement, entitled "Continued Participation", sets out that Ameren Missouri (then "AmerenUE") would work with parties regarding "methodology, inputs, outputs, and other features" regarding the Actual Analysis. Further in Paragraph 16, Ameren Missouri (then "AmerenUE") agrees that parties "will be given meaningful and substantial access to data." No such commitments are made in the Amended Application.

While Staff does not support the granting of the seemingly indefinite extension of Ameren Missouri participation in MISO on the terms set out in the Amended Application, if such an extension is granted, Staff would recommend all parties have the access to data necessary to judge whether such continued membership is detrimental to the ratepayers and shareholders.

#### VI. **Ameren Transmission Company ("ATX")**

Q. Do you know whether, in the legal opinion of Staff Counsel's Office, Ameren Missouri affiliates, including Ameren Transmission Company ("ATX"), need a Commission

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Certificate of Convenience and Necessity (CCN) in order to construct, own, and operate certain transmission facilities in the state of Missouri?

- A. It is my understanding that it is Staff Counsel's Office's legal opinion that Ameren Missouri affiliates, including ATX, would need a CCN (as described in RSMo 393.170 and 390.190.1) to construct, own, and operate certain transmission facilities in Missouri.
- Q. Has there been any significant federal activity regarding Ameren Missouri transmission affiliates, including ATX, since the Stipulation and Agreement in Case No. EO-2008-0134?
- A. Yes. In FERC Docket No. EL10-80, "Filing for Petition for Declaratory Order for Incentive Rate Treatment" (regarding the four "Grand Rivers" transmission projects in Southern Illinois), Ameren Services states:

[T]hat ATX and its transmission-owning subsidiaries will join Midwest ISO as transmission owner members and thereby recover their transmission revenue requirements under the tariff, similar to their affiliates, the Ameren Operating Companies.

In its "Order on Transmission Rate Incentives" issued May 19, 2011, in FERC Docket No. EL10-80, FERC included ATX in the list of Ameren affiliates meeting the criteria for receiving transmission incentives<sup>8</sup>.

Q. Does Staff consider the inclusion of ATX in FERC Docket No. EL10-80, which occurred since the Stipulation and Agreement was filed in Case No. EO-2008-0134, to be an event significant to the Commission's consideration of: 1) Ameren Missouri's continued participation in MISO; 2) transmission that may be intended to be constructed in

<sup>&</sup>lt;sup>8</sup> See paragraph 77 of the FERC's Docket No. EL10-80 "Order on Transmission Rate Incentives."

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the future by Ameren affiliates; and 3) transmission currently owned and operated by Ameren Missouri.

Yes. As a consequence, Staff recommends that the Commission, in essence, A. condition continued approval for Ameren Missouri to remain in MISO to Ameren Missouri agreeing in this case to the Commission application of any existing terms and conditions in this case regarding Ameren Missouri as a transmission constructor, owner, or operator to any existing or future Ameren Missouri affiliates, including ATX, to which are transferred any right to construct, own, and/or operate transmission. Existing terms and conditions would include those contained in Section 5.3 of the Service Agreement, originally attached as "Attachment A" to the EO-2003-0271 Stipulation and Agreement:

Section 5 .3 GridAmerica LLC and the Midwest ISO will review the Resource Plans of AmerenUE in accordance with the applicable agreements, planning protocols and guidelines and will inform AmerenUE regarding new transmission facilities or enhancements to existing transmission facilities (collectively, "Transmission Upgrades"), if any, that are needed to support the AmerenUE Resource Plans and other requirements for new transmission and the timetable for any such Transmission Upgrades. AmerenUE shall be required to obtain the approval of the MoPSC prior to AmerenUE undertaking the construction of Transmission Upgrades in Missouri if the Transmission Upgrades are not required to support AmerenUE's specific Resource Plans but rather result from other Transmission Upgrade requirements.

Further, many of the transmission assets currently owned and operated by Ameren Missouri have been paid for, in whole or in part, by Ameren Missouri ratepayers under the terms and conditions set out in the Stipulations and Agreements in Case Nos. EO-2003-0271 and EO-2008-0134. If Ameren Missouri attempts to transfer its current transmission assets to an Ameren affiliate, Staff would recommend the existing terms and conditions attached to those assets continue as if they were owned by Ameren Missouri.

Is it a possibility that ATX would construct lines in the Ameren Missouri Q. region?

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A. Yes, it is, as described by Ameren Missouri in response to Staff Data Request

Please explain the analysis process that would be gone through for projects to be categorized or distinguished as: A) "for purposes of maintaining reliable service to Ameren Missouri's customers," rather than or from, B) Multi-Value Projects, Regionally Beneficial Projects, or projects designed to interconnect and integrate new generation resources. Question 2 What considerations would be taken into account? Question 3 Describe the analysis process that would be gone through in terms of deciding whether Ameren Missouri or ATX would build: A) a RECB I Project; B) a RECB II project; C) an MVP project. Question 4 What entity would go through the particular analysis process: A) Ameren Missouri, B) Ameren Corp., C) ATX, or D) would it be a collaboration of these or other entities? Question 5 Would any of the Ameren Corp. affiliates file or make the Commission/Staff aware of the analysis

#### Response:

process or decision result?

With respect to the first and second questions, MISO conducts the analysis process. See the MISO tariff and the MISO Transmission Expansion Plan process documents issued by MISO;

With respect to the third and fourth questions, Ameren Missouri has already made the decision that it will only build transmission projects needed to maintain reliable service to its load as well as building transmission facilities needed to connect Ameren Missouri generation to the transmission grid. This decision was made in recognition of the fact that Ameren Missouri has limited capital to invest in its generation and energy delivery operations, and that it must focus those investments on those needed to maintain reliable service rather than on regional transmission projects.

With respect to the fifth question, Ameren Missouri has already informed the Commissioners and Staff of the process. (See the response to the third and fourth questions above.) Ameren Missouri is willing to inform the Commission as to which transmission projects will be constructed by an entity other than Ameren Missouri.

The full question and answer to Staff Data Request 7 is included as Schedule ACM-7.

Q. Are there any additional reasons for wanting these terms and conditions transferred to Ameren Missouri affiliates, including ATX, in this instant case?

A. The Ameren Missouri responses to Staff Data Requests 2, 4, 6, 8 and 12 demonstrate the difficulty that the Commission, Staff, and other parties will most likely encounter in obtaining information from Ameren Missouri affiliates rather than from Ameren Missouri if Ameren affiliates such as ATX construct, own, and/or operate transmission rather than Ameren Missouri. These Staff Data Requests and Ameren Missouri Responses are attached as Schedule ACM-8.

Staff and other parties have made it clear to Ameren Missouri throughout this case that they consider the Ameren Missouri plans for ATX a matter of considerable interest and concern. Ameren Missouri has not addressed its plans for ATX in its filings in this case and has indicated in its responses to Staff Data Requests regarding ATX and, for example MISO, and the Commission's affiliate transaction rules, matters not relevant to any issue in this case, not reasonably calculated to lead to the discovery of admissible evidence, beyond the proper scope of discovery, and seeking information that is protected from disclosure.

#### VII. Commission Questions and Responses

- Q. Has Staff prepared a response to the "Order Directing the Commission's Staff to Respond to the Questions from the Commission in its Prefiled Testimony", filed by the Commission on August 23, 2011?
- A. Yes, Staff has. The seventeen Commission questions and Staff's responses are as follows:
- 1. Do you interpret the July 2011 MISO FERC filing on "resource adequacy" as having any prerequisites or qualifications that must be met before a utility can opt-out or self-schedule, or is it too early to tell?

It appears there are some prerequisites or qualifications assuming the July 2011 MISO FERC tariff filing<sup>9</sup> goes into effect as proposed. It is always possible that FERC will order changes

<sup>&</sup>lt;sup>9</sup> Found at the MISO website, <a href="https://www.midwestiso.org/Library/Repository/Tariff/FERC%20Filings/2011-07-20%20Docket%20No.%20ER11-4081-000.pdf">https://www.midwestiso.org/Library/Repository/Tariff/FERC%20Filings/2011-07-20%20Docket%20No.%20ER11-4081-000.pdf</a>, FERC Docket No. ER11-4081

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to the MISO Resource Adequacy tariff filing via an order requiring a compliance filing, so it is too early to know for sure.

- (a) As it is currently with MISO's Module E Resource Adequacy process, resources will have to qualify through Module E of MISO's tariff in order to contribute capacity credits towards meeting a utility's "resource adequacy" requirement.
- (b) In the Resource Adequacy tariff filing as filed at FERC in July 2011, as long as a utility has enough capacity credits over the planning year from resources that qualify via Module E either through ownership or existing contract, that utility should be able to opt out of the existing auction without any concern. Opting out allows a utility to partially or completely to remove itself from the Planning Resource Auction ("PRA"), with some qualifications, as discussed below.

Note that in order to fully or partially opt out of the auction, the Load Serving Entity ("LSE") must submit a "Fixed Resource Adequacy Plan" ("FRAP") by the 7<sup>th</sup> business day of March (Tariff filing, 69A.9). Proposed Section 69A.9.a. requires that a FRAP:

The FRAP must include the LSE's forecasted Coincident Peak Demand for an LRZ [Local Resource Zone] for a Planning Year and also identify the ZRCs [Zonal Resource Credits] that the LSE owns, or has contractual rights to, in order to provide Planning Resources to meet its total PRMR [Planning Reserve Margin Requirement] and also its load ratio share of the LCR [Local Clearing Requirement] for each LRZ.

A full description of opting out, plus the possibility of having to pay even if you opt out of the auction, is quoted below from the MISO tariff filing cover letter, beginning on page 13:

#### Opt Out Procedures:

Load Serving Entities will be able to submit a Fixed Resource Adequacy Plan to MISO to demonstrate that the LSE has sufficient Zonal Resource Credits to meet all or a portion of its Planning Reserve Margin Requirement for the Local Resource Zone. An LSE with a Fixed Resource Adequacy Plan that fully covers the LSE's Planning Reserve Margin Requirement for a Local Resource Zone will be able to opt out of the Planning Resource Auction for such Planning Year for such Local Resource Zone. The effect of this is that: (1) the LSE will not have an obligation to make Zonal Resource Credit Offers into the Planning Resource Auction for such Planning Year for the identified Planning Resources; and (2) the LSE will not have an obligation to pay the Auction Clearing Price for a Local Resource Zone for the LSE's Load within such Local Resource Zone. Such LSE will, however, be able to make Zonal Resource Credit Offers into the Planning Resource Auction for any Zonal Resource Credits that are in excess of the LSE's Planning Reserve Margin Requirement for a Local Resource Zone.

If an LSE designates Zonal Resource Credits in its Fixed Resource Adequacy Plan that are not physically located in a Local Resource Zone to meet its Planning Reserve Margin Requirement for a Local Resource Zone, then the LSE may be subject to a Zonal Deliverability Charge. A Zonal Deliverability Charge will be based upon the difference in Auction Clearing Prices between the Local Resource Zone where an LSE has Demand that is not met by Zonal Resource Credits physically located in the Local Resource Zone, and the Auction Clearing Price of the Local Resource Zone where the LSE's Zonal Resource Credits are located, times the number of MWs of Zonal Resource Credits that are not subject to a Grandmother Agreement pursuant to proposed Section 69A.7.7(a). [footnotes omitted]

"Opting out" gives an LSE the ability to remove itself from a PRA, but does not necessarily mean that the LSE will owe no charges related to the auction or meeting the LSE's Resource Adequacy requirement. As described in the last paragraph above, if the LSE "has Demand that is not met by Zonal Resource Credits physically located in the Local Resource Zone," they could be subject to "Zonal Deliverability Charges" (ZDC).

(c) Self scheduling<sup>10</sup>, in the proposed tariff filing, means the utility is still participating in the auction process, but essentially buying capacity credits from its own resources back from itself at the same price the capacity credits were offered in at, thus having no net payment to the auction for those credits. The tariff filing reads as an LSE being able to either partially or fully self schedule. In this process, the utility is able to offer capacity credits from its resources (either owned or via contract) at essentially a zero price, ensuring they will be chosen.

Going forward, it is possible that new generation will be subject to the Minimum Offer Price Rule ("MOPR"), where it is possible that the MISO Independent Market Monitor ("IMM") will be able to mitigate an essentially zero price bid entered by an LSE for its own resources. This could lead to the problematic situation where customers will pay twice for capacity within the auction: first, for a (probably generation) resource prudently (as determined by a state utility commission) constructed by an LSE and paid for by its ratepayers; and second, for capacity from a different resource in order to meet the MISO Module E Resource Adequacy requirement.

2. If participation in the MISO "resource adequacy" market is "voluntary" in the sense that Ameren Missouri can self-s chedule or "opt out," does staff recommend that Ameren's continued participation in MISO be made contingent on the Commiss ion approving Ameren Missouri's voluntary participation in the MISO "resource adequacy" market or should Ameren Misso uri be required to self-s chedule or "opt out"?

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<sup>&</sup>lt;sup>10</sup> "Self schedule" is defined in the proposed tariff filing as "The designation by a Market Participant of a specific amount of Energy and/or Operating Reserve and/or capacity to be supplied from a specific Resource or Planning Resource as a Price Taker." Definition number 1.600.

Staff is supportive of the recommendation in this question – that Ameren Missouri's continued participation in MISO be made contingent on the Commission's approving Ameren Missouri's voluntary participation in the MISO "resource adequacy" market.

Ameren Missouri has stated in a response to Staff Data Request 14 that it will be able to self

schedule or opt out of the PRA during the three-year planning period. It would seem that the reasonable thing to do, as the auction is currently designed in the July 2011 MISO Tariff Filing, is for Ameren Missouri to opt out of the auction if it is capable, as participating in the auction could expose Ameren Missouri ratepayers and stockholders to unnecessary risks. Staff recommends that if Ameren Missouri is able to opt out of the Planning Resource Auction process and does not, that Ameren Missouri be required to file with the Commission explaining why Ameren Missouri did not opt-out.

Staff Data Request 14 and Ameren Missouri's response is included as Schedule ACM-9.

3. If the Commission cannot make Ameren Missouri's continued participation in MISO contingent on this Commission approving Ameren Missouri's voluntary participation in the MISO "resource adequacy" market or Ameren Missouri being required to self-schedule or "opt out" of said "resource adequacy" market, how does this affect Ameren Missouri's integrated resource planning ("IRP") process? How can this Commission be assured that Ameren Missouri will continue to use a 20-year planning horizon as prescribed in 4 CSR 240-22.030 as opposed to the one-year, the originally proposed three-year market or whatever else FERC might order MISO to construct?

If the Commission cannot make Ameren Missouri's continued participation contingent as described above, it would introduce some uncertainty regarding the resource planning process. Staff expects the Commission to retain full jurisdiction and control over the resource planning process described in Chapter 22, included requiring Ameren Missouri to use a 20-year planning horizon.

 Depending on the final Resource Adequacy construct design, it may be more difficult to determine the preferred plan going forward in the resource planning process. The possibility of future ZDCs being applied to resources located outside Ameren Missouri's LRZ in the process of meeting the annual resource adequacy requirement introduces a new uncertainty to the siting of future generation resources, and may even make demand-side resources more preferable.

Introducing even more volatility is the fact that the LRZs are not set out in the July 2011 MISO Resource Adequacy tariff filing, so predicting the outcomes of future auctions, and possible ZDCs, is nigh impossible at this point.

4. If MISO is unable to quantify the amount of construction or cost it will take to integrate Entergy in to the MISO system, how can this Commission make a determination that Ameren Misso uri remaining a member of MISO is not detrimental to the public interest?

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Regarding the time in the three-year planning horizon of the Ameren Missouri cost benefit study, it does become more difficult to make the determination of whether Ameren Missouri "remaining a member of MISO is not detrimental to the public interest" regarding cost related to integrating Entergy into MISO, especially if those costs are incurred outside of the three-year planning horizon. It is for this reason that Staff recommends in its testimony expanding the planning horizon to a 5-10-year period.

Key to analysis of this sort is what charges regarding Entergy integration are possibly avoidable through Ameren Missouri potentially ending its MISO membership. If Ameren Missouri will have to pay Entergy integration charges even if it leaves MISO at a certain date, those charges would be "sunk", in terms of being unavoidable.

However, if the charges can be avoided by Ameren Missouri by leaving MISO, they should be deemed as additional costs to remaining in MISO, or a benefit to the best alternative to continued MISO membership.

In a "back of the envelope" analysis regarding the impact of the costs of integrating Entergy into MISO on continued Ameren Missouri membership in MISO, one would have to assume Ameren Missouri's portion of the costs of integrating Entergy into MISO would be greater than the current net benefit of Ameren Missouri remaining in MISO in order to determine that Ameren Missouri remaining in MISO is detrimental to the public interest.

The Commission itself has advocated regarding the costs of integrating Entergy in MISO in FERC Docket No. ER11-3728, the cost allocation waiver MISO has filed regarding the integration of MISO. This case is still pending at FERC.

Staff recommends the Commission consider the potential costs of integrating Entergy into MISO, but at this point in time Staff does not recommend terminating permission regarding Ameren Missouri's membership in MISO due to those potential costs. Staff does recommend a longer study period in the next evaluation regarding Ameren Missouri's continued membership in MISO in order to capture more of the costs of integrating Entergy to see if those costs substantially impact the cost benefit analysis.

5. If MISO and Ameren Missour i state that there are no construction costs associated with integrating Entergy into MISO, what is the likelihood that they will be able to operate a single "consolidated system" as appears to be contemplated in the economic modeling? What is the Commiss ion Staff's opinion as to whether operating a "hypothetical" integrated system or two "stand alone" systems will produce the same benefits as the consolidated system that has been used in the economic models? If possible, please identify and quantify any differences.

Staff notes the report titled "An Evaluation of the Alternative Transmission Arrangements Available to the Entergy Operating Companies and Support for Proposal to Join MISO" filed by Entergy Arkansas, Inc. before the Arkansas Public Service Commission on May 12, 2011

Rebuttal Testimony of Adam C. McKinnie in Docket No. 10-011-U<sup>11</sup> ("CRA 2011 Entergy Study"), regarding Entergy's possible integration into MISO does assume a "consolidated balancing authority", as described below:

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Having a single MISO-footprint-wide Balancing Area with a single ACE will decrease the total amount of regulating reserves required versus separate MISO

and Entergy Balancing Areas. [from page TA-23]

Staff is currently unaware of the specific transmission lines or other projects involving a "construction cost", or the quantity of such costs, necessary to "integrate" Entergy Arkansas, or the entire Entergy footprint, successfully into the existing MISO footprint.

Staff is evaluating the results of the CRA 2011Entergy Study, and at this point, has found no portion of that cost study to state what portion of the benefits, if any, of Entergy joining MISO or SPP is specifically predicated on portions or all of the Entergy footprint being included in a single consolidated balancing authority with the existing MISO footprint. It appears the study just assumes the existence of the consolidated balancing authority, and that allows certain costs to be lessened, such as regulation services (an instantaneous balancing of supply and demand within the control area by the balancing authority, often caused by having generation plants producing slightly more or slightly less energy).

Staff's opinion is that there is benefit to operating a consolidated balancing authority versus separate balancing authorities. Some of the benefits of SPP's Day 2 Marketplace are predicated upon moving toward a consolidated balancing authority. Therefore, Staff would assume that if the Entergy system and the existing MISO footprint are not properly integrated to the extent where they can operate as a consolidated balancing authority, the benefit of Entergy joining MISO would be decreased.

A more thorough study would be necessary in order to answer this question regarding the quantification of how much less benefit there would be of Entergy joining MISO without a consolidated balancing authority.

6. It has been estimated that it may cost as much as \$100 million to integrate Entergy into the MISO system, whose ratepayers will pay those costs? Will those costs be paid by Entergy's customers, all of MISO's customers or some combination?

The \$100 million estimate came from page 25 of the CRA 2011 Entergy Study:

The expected transition and implementation costs are roughly estimated to be approximately \$100 million, most of which will be spent in late 2012 and 2013. It is expected that costs will be incurred to obtain the necessary regulatory approvals, to revise or implement commercial and legal agreements, to integrate transmission and generation facilities, to acquire hardware and software (including metering) systems, to effectuate back-office accounting and settlements, and to build out needed communications infrastructure.

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<sup>&</sup>lt;sup>11</sup> Found online at <a href="http://www.apscservices.info/pdf/10/10-011-u\_367\_1.pdf">http://www.apscservices.info/pdf/10/10-011-u\_367\_1.pdf</a>

In terms of "transition and implementation costs" related to integrating Entergy into the MISO footprint, Staff would assume those costs will be borne by all members of the MISO footprint through a potential increase in the MISO "administrative fee".

It is possible that existing members of the MISO footprint may see no net increase in the administrative fee due to the integration of Entergy into MISO, as the total administrative costs will be spread out over more members. Ameren Missouri estimates an increase in its administrative fee in 2014, as detailed in the response to Staff Data Request 27:

If Entergy does not become a member of MISO during the study period, what adjustments will need to be made to the updated cost-benefit study in Arora Direct Schedule AA-1 to reflect this event?

#### **RESPONSE**

Prepared By: Ajay

K. Arora

Title: Director – Corporate Planning Date: August 29,

The Administrative Fee savings in 2014 would be increased by approximately \$1 million - thus decreasing the NPV benefit of remaining in MISO by approximately \$700,000.

Staff Data Request 27 and Ameren Missouri's response are Schedule ACM-5.

Staff would expect the monies spent to integrate MISO, as described above, to be incurred by both existing MISO members and Entergy.

7. Ameren Missouri is currently performing a generation interconnection s tudy for MISO in regard to Clean Line Energy's prop osed "Grain Belt Express" transmission line. Can the PSC staff analyz e Ameren Missouri's study and determine whether Missouri customers will receive a net benefit due to cheaper electricity being made available or a net detriment to Ameren Misso uri due to decreas ed off-system sales margins as well as sales from this transmission project as it was proposed by Clean Line Energy Partners as of July 1, 2011? If the answer is unknown, how can this Commission determine that Ameren Missouri's continued membership in MISO is not detrimental to the public interest?

As of September 12, 2011, Staff has not obtained a copy of the generation interconnection study referenced in the question, despite inquiries to Ameren Missouri. Staff has a pending data request to Ameren Missouri and is awaiting a response.

Generator interconnection studies traditionally look at the transmission upgrades projects necessary to properly integrate the amount of energy delivered by a generator (or generators

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at the other end of a DC line, as in the Clean Line example). Typically such studies do not evaluate Locational Marginal Prices (LMPs) to be able to accurately tell whether Ameren Missouri customers "will receive a net benefit due to cheaper electricity being available or a net detriment due to decreased off-system sales margins".

It appears that Clean Line's current plan, as described in the August 30, 2011 Commission Agenda session, is to deliver a majority of the energy to the PJM footprint. This is also described in the letter sent from Clean Line to SPP, as excerpted below:

You've probably gotten word by now after our announcement to the Missouri PSC, but we wanted to let you know of a change in the Grain Belt Express project. Preliminary interconnection studies underway by the Midwest ISO suggest the St. François substation and surrounding system in Missouri are not capable of absorbing the full capacity of the Grain Belt Express Clean Line. As a result, Clean Line is exploring the possibility of delivering a portion of the energy to a point in Missouri and the rest to a point farther east (i.e., a multi-terminal configuration).

For the second point of interconnection, Clean Line is considering 765kV substations within PJM. We have submitted an interconnection request for 3500MW at the AEP Sullivan substation. We are encouraged by advances in HVDC technology, which would make this possible, and we believe this configuration will increase the benefits of the Grain Belt Express Clean Line to the entire project footprint.

A copy of the complete document is attached as Schedule ACM-10. It appears this change of plans was due to the cost of integrating the energy from the Clean Line DC Transmission line into the MISO footprint in or around southeastern Missouri.

Staff suggests that this may be less of an issue than before, and does not expect it to cause the net benefit of Ameren Missouri being in MISO over the three-year study period to become negative.

- 8. How would the PSC Staff ch aracterize MISO's response to question 10(a) in th Commission's June 1, 2011 Order Directing the Parties to Answer Certain Questions? Please provide an answer to this question that includes one of the following terms:
- a. Yes
- b. No
- c. Maybe
- d. I don't know

Staff's interpretation of the MISO answer to that question is "no". MISO's answer appears to be that Joint Operating Agreements (JOA) would not be the way to determine if compensation is due to use of other company's facilities through "transmission service by a JOA party that affects neighboring transmission systems", and then the question remains to parallel flows.

Rebuttal Testimony of Adam C. McKinnie

9. Assuming the estimated cost of the "M ichigan Thumb Loop Expansion" is \$510 million and the annual revenue requirement is \$138,619,918 pursuant to MISO's answer to question 12(b) on page 8 of their resp onse dated June 16, 2011, w hat will be the present value of total cost of the project to Missouri ratepayers?

Staff has asked MISO for assistance and information regarding how these numbers were calculated, and that request is still pending. It is difficult at best to answer the question without knowing additional information regarding how MISO calculated the annual revenue requirement.

Staff would need the following information in order to properly calculate the number: (1) annual revenue requirement to Missouri ratepayers associated with the project, which will at the very least include cash flow collected for allowed Rate of Return and depreciation, but may include other operational expenditures associated with maintaining the system (2) cost of capital if allowed Rate of Return is set higher than the cost of capital; (3) the number of years Missouri ratepayers will be charged the revenue requirement associated with the project; and (4) final period cash flow if different from annual cash flows.

Once Staff receives this information, Staff will file a response to this question.

10. In MISO's answer to question 12(b) filed on page 8 of their response dated June 16, 2011, how is the "rate of approximately 0.25 cents/kWh" calculated?

Staff has asked MISO for assistance and information regarding how these numbers were calculated, and that request is still pending. Once Staff receives this information, Staff will file a response to this question

11. In MISO's answ er to question 12(b) in their response dated June 16, 2011, is 7 percent of the actual revenue requirement the correct annual estimated charge for Ameren Missouri? Does this estimate assume First Energy as a member of PJM?

Staff believes the answer is yes – similar 7% estimates have been prepared by MISO in other venues such as assuming First Energy is no longer a member of MISO, but that Duke Energy still is a member. Staff is awaiting confirmation of this fact from MISO. Once Staff receives this information, Staff will file a response to this question

12. In a previous case on this issue, File No. EO-2008-0134, Ameren provided a CRA International Study. In this case, Ameren Misso uri provided a one-page table identified as "Attachment A" to their verified application. Can the PSC Staff investigate to see if a similar study was prepared in this case and provided the Commiss ion with a detailed analysis of "Attachment A" to Ameren Missouri's verified application along with any associated work papers of Ameren Missouri or MISO and provide a written analysis of the claims contained therein?

Rebuttal Testimony of Adam C. McKinnie

Staff is unaware of any "similar" study to that prepared in EO-2008-0134 prepared for this case, in terms of a full study. In the instant case, Ameren Missouri described its process as using updated inputs for the CRA Study performed in EO-2008-0134.

Ameren Missouri did provide work papers to Staff regarding the updated inputs, and they are attached to the testimony as Schedule ACM-11. These work papers are excel files, and are highly confidential in their entirety.

At this time, Staff does not have any additional analysis regarding the claims in the updated inputs to the CRA Study provided by Mr. Arora in his Direct Testimony filed on July 29, 2011, with the work papers provided just after that date. Staff would submit that the timeframe set up in the 2008 Stipulation and Agreement gives more time to evaluate inputs and study materials than the time between Direct Testimony and Rebuttal Testimony in this case. Staff was not advised that Ameren Missouri intended to update its cost benefit analysis, as shown in Mr. Arora's Direct Testimony Schedule AA-1.

Staff has submitted Data Request 46 on this issue as follows, but has not yet received a response.

Was there a study performed for this case, EO-2011-0128, similar to the CRA International Study performed for AmerenUE for Case No. EO-2008-0134? If so, please provide a copy and related work papers.

Once Staff receives this information, Staff will file a response to this question

13. Contact the Wisconsin Public Service Commission and WPPI, I nc. and provide an opinion as to the veracity, truth fulness, and completeness of MISO's answer to question 12(b) on page 8 of their response dated June 16, 2011.

Staff has contacted both WPPI and Wisconsin Public Service representatives regarding the MISO response. The following is an excerpt from the response from a WPPI Engineer, Steve Leovy:

I presume that your Commission's questions pertain to the two new Elm Road Generating Station (ERGS) 600-MW coal units south of Milwaukee, in which WPPI has an ownership share along with We Energies and Madison Gas & Electric. MISO's response is accurate, but I can provide additional detail that may enhance your understanding of all the issues:

- 1. The two ERGS units required relatively minor transmission upgrades, relative to the size of the added generation.
- 2. MISO does have a process in its tariff, in Section 46, to allow those who fund network upgrades to receive Financial Transmission Rights (FTRs) or Auction Revenue Rights (ARRs) in exchange.

- 3. The transmission upgrades in question, however, were all in the American Transmission Company (ATC) transmission zone, in which ATC has a policy to roll the cost of such upgrades into the zonal transmission rate.
- 4. Accordingly, WPPI was never eligible to seek FTRs under the provision described by MISO, since we did not directly fund these upgrades, and thus we never submitted a request for such FTRs.
- 5. MISO's current ARR policy dates to June 1, 2008, at which time a number of significant FTR Market changes became effective in MISO, including introduction of firm Long-term Transmission Rights (LTTRs) pursuant to FERC directive, changing from allocation of FTRs to ARRs, and defining Network Customers' ARR Nomination Rights on the basis of historical resources transmission arrangements during 2004-5 rather than then-current Network Resource designations.
- 6. This final change using 2004-5 vintage resources as the basis for ARR nomination rights meant that WPPI would not initially receive transmission rights associated with our share of ERGS (since these did not achieve commercial operation until 2010), but would have to go through MISO's new process for adding ARR Entitlements for new resources (described in 43.6.1 & 43.6.2 of MISO's tariff).
- 7. In spite of this, WPPI generally supported this change as we saw the previous process as susceptible to gaming that could eventually consume FTR capacity and make it difficult for Network Customers to receive relatively full allocations.
- 8. Since 2008, we have identified a number of ways that the process for adding new ARR Entitlements for new Network Resources could be improved and we have worked with MISO through its stakeholder process to propose and implement a number of changes, including increasing the distribution-factor significance threshold used in the addition test, allowing new resources to be added the first full season after commercial operation rather than the first full FTR year, and allowing requesters to specify the minimum replacement ratio for Replacement requests. Perhaps most significantly, we successfully changed the rules to allow any requested baseload resource MW to be added automatically to the Peak Reserved Source Set (PRSS eligible for nomination in the second but not the first stage of the ARR allocation) in the event that these MW are rejected in the test for addition to the Baseload Reserved Source Set (BRSS), which has higher nomination priority.
- 9. We have had moderate success in adding ERGS Reserved Source Points (RSPs) to our BRSS set, varying by season and period, and were able to add large amounts to the PRSS set last year.
- 10. We are still seeking addition of RSPs for baseload resources to our BRSS, though we are beginning to run out of room to add more ARR Entitlements, as the size of this set is capped at 57.5% of forecast peak demand.
- 11. We continue to see some room for improvement in MISO's process for RSP addition and replacement; however we generally believe that coordination with MISO and working through MISO's existing stakeholder process provide an adequate means to address these issues.

A copy of the complete document is attached as Schedule ACM-12.

Staff also received two responses from Wisconsin PSC employee Jim Wottreng – first, regarding his view of the question, and secondly, regarding his opinion of the Leovy response.

Regarding the question, I'm not aware of what, if any, transmission upgrades WPPI paid for. That being said, I was aware that with MISO's adoption of ARRs, which allocation is based on a historical period, Wisconsin Public Service Corporation (WPSC) and others (I believe WPPI) were having difficulty in obtaining ARRs for new generation units (being new units, they were not part of the historical base period). However, that situation was not a situation where they were eligible for ARRs/FTRs by reason of having paid for the transmission upgrades. [Absent the allocation, at zero cost, WPSC would have to buy the desired FTR in the annual or monthly auctions or go without the congestion hedge.]

Regarding MISO's answer, my understanding is as MISO states – one is eligible for FTRs, subject to feasibility, by reason of having paid for the transmission upgrade. The latter part of the answer that is specific to WPPI is beyond my knowledge.

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Regarding Leovy's responses:

- I generally agree with Leovy's responses on #2 through #6. I say generally, because I don't remember the specific dates and have not re-checked the dates included in his statements.
- On #7, I don't know/remember whether WPPI supported the change or not. At the time of the change, I thought about the shortcomings of MISO's proposal to use a historical period as the basis for the allocation. I was also aware of the shortcomings of the existing "network resource" designation for FTR allocations and "capacity swaps" that were being used by some to obtain desirable FTR paths and congestion rents.
- On #8 through #11, I know that Leovy has worked with MISO to improve the ARR process for new resources, but can't really speak to the success of that effort or WPPI's recent experience.
  - [MISO treats participants' ARR allocations as confidential, but a quick look at the 2011-2012 ARR allocation for the WEC.WPPI\_1.AZ sink indicates some ARRs from the WEC.ERG1 and WEC.ERG2 sources, which is supportive of Leovy's statements.]

Copies of the complete documents are attached as Schedule ACM-13.

Having reviewed these responses, Staff would state that MISO's response to the question appears accurate and an ongoing issue that warrants further attention.

 14. Please investigate the truthfulness of the MISO response to question 15 found on page of their response dated June 16, 2011, by requesting data and reviewing any and all records pertaining to the employment, hiring and compensation of key MISO employees for this purpose.

Staff has reviewed the publicly available data provided by MISO regarding its "2011 Annual Incentive Goals." Page 9 of 12 of the "MISO 2011 Annual Incentive Goals" includes the following:

#### **Resource Adequacy Enhancements** [links to Strategic Element #1 & #3]

4. Within 90 days of FERC Order accepting comprehensive Resource Adequacy filing, MISO will develop and deliver an implementation plan including revised business practice manuals and comprehensive rules

This appears to be the only place that "resource adequacy", or other similar term, is in the document. Staff has issued a follow up data request for MISO to define the term "comprehensive Resource Adequacy filing".

Staff has also issued Data Requests regarding "any and all records pertaining to the employment, hiring, and compensation of key MISO employees" regarding Resource Adequacy issues to attempt to determine if there is anything beyond the publicly available data regarding an incentive for MISO employees, including MISO leadership personnel, regarding a capacity market.

Responses to these Data Requests have not yet been received. Once Staff receives this information, Staff will file a further response to this question.

15. Please investigate and report to this Commission the total amount spent by MISO on consultants, contractors, outside legal counsel, media consultants, public relations firms, agents and anyone else hired for the purpose of gaining regulatory approval of Entergy joining MISO. Please provide a list of a ll external employees, agents or affiliates compensated by MISO for these purposes. Pl ease investigate and report w hether any MISO employees, consultants, contractors, outside legal counsel, agents or anyone else affiliated with MISO, including but not limited to Aldie Warnock, would receive a bonus or have a portion of their comp ensation tied to successful regulatory approval of Entergy joining the MISO system.

The MISO "2011 Annual Incentive Goals" referenced in the response to question 14 provide an incentive regarding increasing MISO membership, though it does not refer to Entergy specifically:

**Grow the Membership and Increase Net Load Balance** [links to Strategic Element #3]

5. Add a new transmission owner and increase net load to the market

In evaluating the Company's growth performance the Board of Directors may use [its] discretion to base performance on the net impact of load served if one or more Transmission Owners takes substantive action to add or withdraw transmission assets from the functional control of the Company

Similar to question 14, Staff has issued additional Data Requests to see if there is information beyond the publicly available information regarding compensation related to the Entergy issue.

 Staff has also issued Data Requests regarding outside contractors related to the Entergy issue. The responses to those Data Requests are currently pending. Once Staff receives this information, Staff will file a further response to this question.

16. At the NARUC m eeting, MISO CEO John Bear e stimated the cost of the MISO Multi-Value Projects (MVPs) to be approximately \$9.00 per residential customer per year. Please provide a detailed analysis as to whether those numbers are a correct estimate of the costs to Missouri ratepayers and please explain whether these projects will actually provide more benefits to Missouri ratepayers than they cost.

MISO is providing this information. Once Staff receives this information, Staff will file a further response to this question. Staff understands that number to be based on an early estimate of total MVP costs. The current estimate of \$11 per residential customer per year is based on the new MVP project cost estimate, which includes estimates of the cost of "underbuild" facilities (facilities at a voltage less than 345 kV necessary to support the 345 kV and above lines). The "underbuild" facilities' costs are paid for by the entire footprint, as they are considered part of the MVPs.

Regarding the last part of this question, MISO has provided a cost benefit analysis regarding the MVPs. Staff is continuing to investigate the current estimations of cost and benefits, which show the Missouri portion of MISO to have a cost benefit ratio of between 1.8 and 3.2, depending on assumptions such as discount rates and the number of years costs and benefits are calculated over.

# 17. Does Ameren Missouri's con tinued membership in MISO pose a detriment to any other group of Missouri customers – municipal utilities, cooperatives or investor-owned utilities?

It could – it depends on future MISO actions involving issues such as seams and Resource Adequacy. There is some benefit to other utilities in Missouri of Ameren Missouri being in MISO, in terms of municipal utilities and cooperatives having access to the Prairie State generation facility in Southern Illinois. That benefit does assume that Ameren Illinois also remains a MISO member.

If a seams agreement is in place allowing Missouri utilities, including municipals and cooperatives, to easily and inexpensively access energy from generation facilities in the MISO

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footprint, including Prairie State, it might be less important to those utilities whether Ameren Missouri remains a member of MISO.

Empire District Electric (Empire) has expressed concern regarding the effects of Entergy becoming a member of MISO, and how Ameren Missouri's continued MISO membership may be necessary for MISO to successfully integrate Entergy into the MISO footprint. To the extent that Entergy's membership in MISO has a detrimental effect on Missouri utilities and Ameren Missouri's continued MISO membership enables Entergy to join MISO, Ameren Missouri's continued membership in MISO could and probably will affect other utilities in Missouri.

Staff expects that the other utilities in Missouri, including municipal utilities, cooperatives, and utilities in the SPP footprint, would be better able to explain the impact of Ameren Missouri's continued membership in MISO, or lack thereof on them.

#### VIII. Summary

- Q. Can you summarize your recommendation?
- A. Yes, I can. In this testimony, I recommend the Commission:
- Extend the current interim and conditional Ameren Missouri permission to remain in MISO until May 15, 2015.
- Deny the extended and indefinite membership in MISO sought in the Amended Application, and continue the standard that Ameren Missouri has the responsibility of establishing that Ameren Missouri continuing in MISO would not be detrimental to the public interest.
- Require Ameren Missouri to complete an outside analysis similar to that performed in EO-2008-0134 to analyze MISO membership versus membership in another RTO. This analysis should have a horizon of no less than 5 and no more than 10 years.
- As a condition of continued Commission authorization to participate in MISO, require Ameren Missouri to agree in this case to the Commission application of any existing terms and conditions regarding Ameren Missouri as a transmission constructor, owner, or operator to any existing or future Ameren Missouri affiliates, including ATX.
- Q. Does this conclude your rebuttal testimony?
- A. Yes, it does, but as I have indicated I am waiting on responses to various outstanding Staff Data Requests and intend to supplement my testimony when I receive those responses.