Exhibit No.:

Issues: Economic Feasibility and

**Public Interest** 

Witness: Michael L. Stahlman

Sponsoring Party: MO PSC Staff

Type of Exhibit: Rebuttal Testimony
Case No.: EA-2015-0146

Date Testimony Prepared: October 21, 2015

### MISSOURI PUBLIC SERVICE COMMISSION COMMISSION STAFF DIVISION

#### **REBUTTAL TESTIMONY**

**OF** 

# MICHAEL L. STAHLMAN AMEREN TRANSMISSION COMPANY OF ILLINOIS CASE NO. EA-2015-0146

Jefferson City, Missouri October 2015

#### BEFORE THE PUBLIC SERVICE COMMISSION

#### OF THE STATE OF MISSOURI

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#### AFFIDAVIT OF MICHAEL L. STAHLMAN

STATE OF MISSOURI	)
	) s:
COUNTY OF COLE	)

**COMES NOW** Michael L. Stahlman and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached Rebuttal Testimony; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Michael L. Stahlman

Subscribed and sworn to before me this 20th day of October, 2015.

SUSAN L. SUNDERMEYER
Notary Public - Notary Seal
State of Missouri
Commissioned for Callaway County
My Commission Expires: October 28, 2018
Commission Number: 14942086

Notary Public

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#### REBUTTAL TESTIMONY

OF

#### MICHAEL L. STAHLMAN

#### AMEREN TRANSMISSION COMPANY OF ILLINOIS

#### **CASE NO. EA-2015-0146**

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12	Q.	Please state your name and business address.
13	A.	My name is Michael L. Stahlman, and my business address is Missouri Public
14	Service Com	mission, P.O. Box 360, Jefferson City, Missouri, 65102.
15	Q.	By whom are you employed and in what capacity?
16	A.	I am employed by the Missouri Public Service Commission ("Commission")
17	as a Regulate	ory Economist III in the Economic Analysis Unit, of the Operational Analysis
18	Department i	n the Commission Staff Division.
19	Q.	Please describe your educational and work background.
20	A.	Please see Schedule MLS-R-1.
21	Q.	Does Staff recommend the Commission approve the Application?
22	A.	Yes. Staff's analysis indicates that, with the imposition of appropriate
23	conditions, tl	ne Application is sufficient to address the Commission's Tartan criteria. This
24	testimony is	summarized by Staff witness Daniel I. Beck, who also addresses applicant
25	qualification	and certain environmental regulations. Additionally, Shawn E. Lange addresses
26	need, David	Murray addresses financial ability, and Sarah L. Kliethermes addresses the
27	promotion of	the public interest.
28	Q.	What is the purpose of your testimony?

A. I will discuss economic feasibility of Ameren Transmission Company of
Illinois' ("ATXI") proposed transmission project and rebut the direct testimonies of Todd
Schatzki, Ph.D. and Geoffrey J. D. Hewings, Ph.D. In summary, while Staff disagrees with
some of ATXI's reasoning, Staff agrees with ATXI that the Project is economically feasible.
Additionally, I discuss the public interest and recommend the Commission not use the
economic development benefits analysis contained in the Direct Testimony of Geoffrey J. D.
Hewings, Ph.D. as a basis to approve or reject the Project.

#### **Economic Feasibility**

- Q. Does Staff think that the Project is economically feasible?
- A. Yes, ATXI will receive payments for the construction and operation of the proposed line through Midcontinent Independent System Operator ("MISO") tariffs.
- Q. Will ATXI receive RTO ("regional transmission organization") cost allocation?
  - A. Yes.
- Q. Will ATXI receive Federal Energy Regulatory Commission ("FERC")

  Transmission Rate Incentives?
  - A. Yes.<sup>1</sup>
- Q. Will Ameren Missouri need to perform a cost allocation adjustment to account for the FERC Transmission Rate Incentives as discussed in paragraph 2.S. of the Commission's May 17, 2012 Order Granting Ameren Missouri's Motion to Clarify Report and Order in File No. EO-2011-0128?

<sup>&</sup>lt;sup>1</sup> The State of Missouri filed a motion to intervene and comments (<a href="http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13035240">http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13035240</a>) on July 27, 2012 in opposition to ATXI's request for rate incentives in FERC Case Number ER12-2216. On November 14, 2012, the FERC issued its Order on Transmission Rate Incentives and Formula Rate Proposal (<a href="http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13035590">http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13035590</a>) in that case.

A. Upon advice from counsel, yes. However, because this Project is not entirely within the Ameren Missouri service territory, Ameren Missouri will only need to perform the cost allocation adjustment for the portion of the Project that is in the Ameren Missouri service territory<sup>2</sup>.

#### **MISO Transmission Studies**

- Q. Has ATXI completed the MISO study process?
- A. Yes. As discussed in the Direct Testimony of Dennis D. Kramer, this Project was studied and approved as part of the MVP ("multi value project") portfolio in 2011 and reviewed again in 2014 as part of a triennial review process. These studies, and their assumptions, are further discussed by Staff witness Shawn E. Lange.
- Q. Do you agree with Dr. Todd Shatzki that the development of this Project through MISO's MVP study process demonstrates economic feasibility<sup>3</sup>?
- A. No. While the 2011 MISO Transmission Expansion Planning (MTEP) report ("MTEP11") and the MTEP14 MVP Triennial Review support a determination that the proposed portfolio of projects are in the public interest, they do not demonstrate economic feasibility. The overall cost-benefit ratio for the MVP portfolio, which includes other transmission segments, was estimated to be in a range of 2.0-2.9 for the Missouri local resource zone in MTEP11 and increased to 2.3-3.3 in the MTEP14 MVP Triennial Review. A cost-benefit ratio greater than one indicates that the analyzed benefits exceed the projected costs. However, even if the MTEP14 MVP Triennial Review had found the overall cost-

<sup>&</sup>lt;sup>2</sup> In response to Staff Data Request 0018, ATXI stated that although the exact percentage will not be known until after a final route is selected, "21.5% [of the project] is expected to be inside sections with full certification for Ameren Missouri service, and 4.5% in certificated areas with territorial agreements."

<sup>&</sup>lt;sup>3</sup> Direct Testimony of Todd Schatzki, Ph.D., p.4 ll. 10-14 and p. 8 ll. 13-17.

<sup>&</sup>lt;sup>4</sup> MISO. (2014). "MTEP 14 Triennial Review: A 2014 review of the public policy, economic, and qualitative benefits of the Multi-Value Project Portfolio."

 $<sup>\</sup>frac{https://www.misoenergy.org/Library/Repository/Study/Candidate\%20MVP\%20Analysis/MTEP14\%20MVP\%20Triennial\%20Review\%20Report.pdf (08APR2015). p. 8.$ 

benefit ratio to be less than one, Staff would still find the project economically feasible as long as ATXI would receive payments for the construction and operation of the proposed line through MISO tariffs. Staff witness Sarah L. Kliethermes further discusses the public interest of the project.

- Q. Does the MTEP14 MVP Triennial Review isolate the cost-benefit ratio of this Project?
- A. No. Staff's review of the MTEP14 MVP Triennial Review was unable to locate the cost-benefit ratio of specific projects; it appears that the study was performed on the entire portfolio.
- Q. Does the MTEP14 MVP Triennial Review's cost-benefit ratio include public policy and other social benefits?
- A. No. The cost-benefit ratio appears to be based on economic analysis alone, although the MTEP14 MVP Triennial Review did review the MTEP11 assumptions regarding public policy other qualitative and social benefits. Some of these assumptions are further discussed by Staff witness Shawn E. Lange.
- Q. Does the economic analysis include any offsets due to restrictions in land use (e.g., loss of agricultural land)?
- A. No. The model, PROMOD IV, focuses on electric markets. Figure E-1 of the MTEP14 MVP Triennial Review identifies the categories of economic benefit as increased market efficiency, deferred generation investment, and wind turbine and future transmission investment capital benefits.

- Q. Do your answers to the last three questions change your opinion that the MTEP14 MVP Triennial Review provides supporting evidence of the project being in the public interest?
- A. No. Although the cost-benefit ratio is limited in its scope, Staff has not seen any evidence to suggest the overall portfolio of projects is not in the public interest.
- Q. Does Staff anticipate that upgrades will be necessary due to the connection at the Maywood-Montgomery 345 kV transmission line?
- A. Yes. In response to Staff Data Requests Nos. 0021 and 0022, ATXI has identified substation modifications that Ameren Missouri will need to make as part of the project. ATXI has indicated that it must compensate Ameren Missouri 100% of the cost of the upgrades. ATXI is not aware of any upgrades that rural electric co-operatives will need to make as part of this project.

#### **Economic Development Benefits to Missouri**

- Q. Did ATXI provide an analysis of economic development benefits for Missouri?
- A. Yes. ATXI provided an analysis as Schedule GH-02 in the Direct Testimony of Geoffrey J. D. Hewings, Ph.D.
- Q. Does that study estimate the number of jobs expected to be created in Missouri?
- A. Yes. Tables 3 and 4 of Schedule GH-02 provide a summary of impacts by year for Missouri and for the Missouri counties where the transmission line is proposed to be physically located.
  - Q. Is the estimate of construction jobs in Dr. Hewings' study reasonable?

A. Yes. In addition, his study also reasonably estimates that there will be no additional jobs created by the project in Missouri after the proposed project is completed.

Q. Are there limitations to the estimates provided in this type of study?

A. Yes. Dr. Hewings' testimony does not discuss the limitations of input-output models. Input-output models, like IMPLAN (IMpact analysis for PLANning), assume linear, fixed proportion production and consumption functions, i.e., constant returns to scale, with constant technology, market shares, and consumer behavior, and no capacity or labor constraints.<sup>5</sup> In other words, if it currently takes one person with one grill to make 100 hamburgers a day, an input-output model assumes that it would take two persons with two grills to make 200 hamburgers a day. These and other limitations are why the results should be treated as rough estimates rather than precise forecasts.

Q. Does Staff recommend reliance on this information as a basis to recommend approval or rejection of ATXI's application?

A. No. Staff understands that job creation can make it easier to "sell" a project from a public policy perspective, but fundamentally, job creation is a function of the costs of the project rather than its benefits. For example, ATXI could increase its expenditures by hiring additional workers to dig holes and fill them in again. This increase in expenditures increases the direct effect, increasing direct jobs; increases the indirect effect as ATXI procures capital materials for the additional workers to dig and fill in the holes; and induces effects as the workers spend money in the local economy. In this instance, the hiring of additional workers would appear as a benefit from the input-output model, but would either be

<sup>&</sup>lt;sup>5</sup> "Limitations of JEDI Models" <a href="http://www.nrel.gov/analysis/jedi/limitations.html">http://www.nrel.gov/analysis/jedi/limitations.html</a> (01SEP15) and "IMPLAN Methodology" <a href="http://reic.uwcc.wisc.edu/implan/">http://reic.uwcc.wisc.edu/implan/</a> (01SEP15).

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a cost in the MISO MVP studies or a cost overrun and would have an impact of reducing the cost-benefit ratio identified in the MTEP14 MVP Triennial Review.

- Is this analysis related to the analysis of economic feasibility? Q.
- A. No. Input-output models assume that the project is economically feasible.

#### Conclusion

- Q. Please summarize your testimony.
- A. Staff concludes that this project is economically feasible since it will receive RTO cost allocation through MISO tariff schedules. While Staff disagrees with ATXI that the MTEP14 MVP Triennial Review should be viewed as evidence of the project's economic feasibility, Staff does find that the MTEP14 MVP Triennial Review is consistent with the Project as promoting the public interest. Finally, my testimony also recommends that the Commission not use the information contained in the Direct Testimony of Geoffrey J. D. Hewings, Ph.D. as a basis for approval or rejection of ATXI's application.
  - Q. Does this conclude your testimony?
  - A. Yes.

#### Michael Stahlman

2009	M. S., Agricultural Economics, University of Missouri, Columbia.
2007	B.A., Economics, Summa Cum Laude, Westminster College, Fulton, MO.

#### **Professional Experience**

2010 -	Regulatory Economist, Missouri Public Service Commission
2007 - 2009	Graduate Research Assistant, University of Missouri
2008	Graduate Teaching Assistant, University of Missouri
2007	American Institute for Economic Research (AIER) Summer
	Fellowship Program
2006	Price Analysis Intern, Food and Agricultural Policy Research Institute
	(FAPRI), Columbia, MO
2006	Legislative Intern for State Representative Munzlinger
2005 - 2006	Certified Tutor in Macroeconomics, Westminster College, Fulton, MO
1998 - 2004	Engineering Watch Supervisor, United States Navy

#### **Expert Witness Testimony**

#### Union Electric Company d/b/a AmerenUE In the Matter of Union Electric Company d/b/a AmerenUE for

In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Natural Gas Service Provided to Customers in the Company's Missouri Service Area

# Union Electric Company d/b/a Ameren Missouri GT-2011-0410 In the Matter of the Union Electric Company's (d/b/a Ameren Missouri) Gas Service Tariffs Removing Certain Provisions for Rebates from Its Missouri Energy Efficient Natural Gas Equipment and Building Shell Measure Rebate Program

## KCP&L Great Missouri Operations Company In the Matter of KCP&L Greater Missouri Operations Company's Notice of Intent to File an Application for Authority to Establish a Demand-Side Programs Investment Mechanism

Union Electric Company d/b/a Ameren Missouri EO-2012-0142
In the Matter of Union Electric Company d/b/a Ameren Missouri's Filing to
Implement Regulatory Changes Furtherance of Energy Efficiency as Allowed by
MEFIA

### Implement Regulatory Changes Furtherance of Energy Efficiency as Allowed by MEEIA Kansas City Power & Light Company EO-2012-0323

#### KCP&L Great Missouri Operations Company EO-2012-0324 In the Matter of the Resource Plan of KCP&L Greater Missouri Operations Company

In the Matter of the Resource Plan of Kansas City Power & Light Company

Kansas City Power & Light Company, KCP&L Great Missouri	EA-2013-0098
Operations Company, and Transource Missouri	EO-2012-0367
In the Matter of the Application of Transource Missouri, LLC fo	or a Certificate of
Convenience and Necessity Authorizing it to Construct, Finance	, Own, Operate,

GR-2010-0363

and Maintain the Iatan-Nashua and Sibley-Nebraska City Electric Transmission Projects

Kansas City Power & Light Company

EO-2012-0135

KCP&L Great Missouri Operations Company

EO-2012-0136

In the Matter of the Application of Kansas City Power & Light Company [KCP&L Great Missouri Operations Company] for Authority to Extend the Transfer of Functional Control of Certain Transmission Assets to the Southwest Power Pool, Inc.

Kansas City Power & Light Company

EU-2014-0077

KCP&L Great Missouri Operations Company

In the Matter of the Application of Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company for the Issuance of an Accounting Authority Order relating to their Electrical Operations and for a Contingent Waiver of the Notice Requirement of 4 CSR 240-4.020(2)

Kansas City Power & Light Company

EO-2014-0095

In the Matter of Kansas City Power & Light Company's Notice of Intent to File an Application for Authority To Establish a Demand-Side Programs Investment Mechanism

Veolia Energy Kansas City, Inc

HR-2014-0066

In the Matter of Veolia Energy Kansas City, Inc for Authority to File Tariffs to Increase Rates

Grain Belt Express Clean Line, LLC

EA-2014-0207

In the Matter of the Application of Grain Belt Express Clean Line LLC for a Certificate of Convenience and Necessity Authorizing It to Construct, Own, Operate, Control, Manage, and Maintain a High Voltage, Direct Current Transmission Line and an Associated Converter Station Providing an Interconnection on the Maywood - Montgomery 345 kV Transmission Line

Union Electric Company d/b/a Ameren Missouri

ER-2014-0258

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariff to Increase Its Revenues for Electric Service

**Empire District Electric Company** 

ER-2014-0351

In the Matter of The Empire District Electric Company for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company's Missouri Service Area

Kansas City Power & Light Company

ER-2014-0370

In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service

#### **Selected Manuscripts and Posters**

Stahlman, Michael and Laura M.J. McCann. "Technology Characteristics, Choice Architecture and Farmer Knowledge: The Case of Phytase." Agriculture and Human Values (2012) 29:371-379.

- Stahlman, Michael, Laura M.J. McCann, and Haluk Gedikoglou. "Adoption of Phytase by Livestock Farmers." Selected poster at the American Agricultural Economics Association Annual Meeting, Orlando, FL, July 27-29, 2008. Also presented at the USDA/CSREES Annual Meeting in St. Louis, MO in February 2009.
- McCann, Laura, Haluk Gedikoglu, Bob Broz, John Lory, Ray Massey, and Michael Stahlman. "Farm Size and Adoption of BMPs by AFOs." Selected poster at the 5<sup>th</sup> National Small Farm Conference in Springfield, IL in September 2009.