

BARY K. WARREN
SURREBUTTAL TESTIMONY

Exhibit No.
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Witness: Bary K. Warren
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Sponsoring Party: Empire District
Case No. EO-2011-0128

**Before the Public Service Commission
of the State of Missouri**

SURREBUTTAL TESTIMONY

of

Bary K. Warren

November 1, 2011

BARY K. WARREN
SURREBUTTAL TESTIMONY
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION

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1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Bary K. Warren and my business address is 602 Joplin Avenue, Joplin,
4 Missouri.

5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am presently employed by The Empire District Electric Company. (“Empire” or
7 “Company”) as the Director of Transmission Policy and Compliance. I have been
8 employed by Empire for more than 8 years and in the electric industry for over 25 years.
9 My current responsibilities include the development, implementation, and advocacy of
10 corporate transmission policy and strategy as well as oversight of balancing authority and
11 transmission system operations, NERC reliability compliance and reporting. I also
12 monitor and participate in FERC and multiple state commission regulatory proceedings,
13 as well as SPP stakeholder committees, such as the SPP Seams Steering Committee,
14 Markets and Operations Policy Committee, Regional Tariff Working Group, RSC Cost
15 Allocation Working Group, Regional State Committee, Board of Directors, and the
16 Regional Allocation Review Task Force.

17 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

18 A. I hold a Masters in Business Administration with High Honors from Oklahoma City
19 University and Bachelors of Science Degree in Electrical Engineering from the
20 University of Missouri at Rolla.

1 **II. PURPOSE**

2 **Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY IN THIS**
3 **CASE BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION**
4 **(“COMMISSION”)?**

5 A. My testimony is presented in response to the Commission’s Chief Utility Economist, Mr.
6 Adam McKinnie’s, Rebuttal Testimony.

7 **Q. TO WHAT PORTION OF MR. MCKINNIE’S REBUTTAL TESTIMONY ARE**
8 **YOU RESPONDING TO?**

9 A. On page 37, line 39 of his Rebuttal Testimony, Mr. McKinnie responded to the
10 following question: “Does Ameren Missouri’s continued membership in MISO pose a
11 detriment to any other group of Missouri customers – municipal utilities, cooperatives or
12 investor-owned utilities?”

13 Mr. McKinnie responded, in part, that: “*Empire District Electric (Empire) has expressed*
14 *concern regarding the effects of Entergy becoming a member of MISO, and how Ameren*
15 *Missouri’s continued MISO membership may be necessary for MISO to successfully*
16 *integrate Entergy into the MISO footprint. To the extent that Entergy’s membership in*
17 *MISO has a detrimental effect on Missouri utilities and Ameren Missouri’s continued*
18 *MISO membership enables Entergy to join MISO, Ameren Missouri’s continued*
19 *membership in MISO could and probably will affect other utilities in Missouri. Staff*
20 *expects that the other utilities in Missouri, including municipal utilities, cooperatives,*
21 *and utilities in the SPP footprint, would be better able to explain the impact of Ameren*
22 *Missouri’s continued membership in MISO, or lack thereof on them.” I will attempt to*

23 identify and explain the impacts to which Mr. McKinnie refers.

1 **Q. PLEASE DESCRIBE HOW YOUR TESTIMONY IS ARRANGED.**

2 A. My testimony will identify some of the key impacts Ameren's continued membership in
3 MISO will have on Empire's customers, describe Ameren's transmission interconnection
4 involvement in Entergy's proposed integration into MISO, and identify additional
5 impacts that relate to the MISO/SPP joint operating agreement (JOA) and congestion
6 management protocols (CMP) today, and post integration of Entergy Arkansas and the
7 other Entergy operating companies into MISO.

8 **Q. WILL EMPIRE SPONSOR ANY ADDITIONAL TESTIMONY CONCERNING**
9 **THIS SUBJECT?**

10 A. Yes. Empire will also sponsor the testimony of Mr. Lanny Nickell, Vice President of
11 Engineering for the Southwest Power Pool Regional Transmission Organization (SPP
12 RTO). Mr. Nickell will also respond to Mr. McKinnie's rebuttal testimony.

13 **III. IMPACTS**

14 **Q. HOW WILL EMPIRE BE IMPACTED BY AMEREN'S CONTINUED**
15 **MEMBERSHIP IN MISO?**

16 A. Empire is directly impacted "today" by the interpretation and implementation of the Joint
17 Operating Agreement (JOA) between MISO and SPP and is likely to see a much greater
18 impact on Empire's ability to import lower cost energy for its customers and export
19 energy to balance resources to load once Entergy Arkansas and the other operating
20 companies obtain all regulatory approvals and integrate into MISO. Currently, SPP and
21 MISO dispute market flow calculations and the interpretation of specific provisions of the
22 JOA that impact Empire. Such disputes and impacts will be described by Empire's
23 sponsored testimony of Lanny Nickell of the SPP.

1 **Q. ARE THE MISO/SPP JOA IMPACTS THE ONLY IMPACTS THAT AMEREN'S**
2 **CONTINUED MEMBERSHIP IN MISO MAY HAVE ON EMPIRE?**

3 A. No. Empire believes that transmission delivery and operational costs will increase due to
4 the planned integration of Entergy into the MISO RTO.

5 **Q. HOW DOES AMEREN'S CONTINUED MEMBERSHIP IN MISO RELATE TO**
6 **ENTERGY JOINING MISO?**

7 A. In order to reliably integrate a transmission system with an RTO, sufficient physical
8 interconnection capability (scope and configuration)¹ and the terms and conditions of
9 such integration must be established between the RTO and transmission system owner
10 and other impacted entities. It is Empire's understanding that the "only" physical
11 interconnection that exists and/or planned between MISO and Entergy Arkansas is
12 established by the "Missouri-Arkansas EHV interconnection" arrangement² that Union
13 Electric Company, d/b/a Ameren Missouri, has with Entergy Arkansas and Associated
14 Electric Cooperative, as well as MISO expected use of Empire, KCPL and KCPL GMO
15 and other SPP members transmission system existing interconnections. Therefore,
16 Ameren's transfer of functional control to MISO gives MISO 1000MW of
17 interconnection rights³ and the primary basis for MISO's plans to integrate Entergy into

¹ FERC Docket No. RM99-2-000; Order No. 2000 "Regional Transmission Organizations" Issued December 20, 1999. Pages 247 - A proposed RTO could simply be too limited to satisfy several of the necessary functions. Further, we are aware that transmission owners could seek to gain strategic advantage by the way an RTO is formed. For example, an RTO could be placed to act as a toll collector on a critical corridor. Page 255 - Resolving loop flow issues: An RTO of sufficient regional scope would internalize loop flow and address loop flow problems over a larger region.

² On October 20, 2011, Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri") and Entergy Services, Inc., ("ESI"), on behalf of Entergy Arkansas, Inc. ("EAI") filed Ameren Missouri's Rate Schedule No. 94 and EAI's Rate Schedule No. 92, an Amended and Restated Interchange Agreement ("Amended Interchange Agreement") between Ameren Missouri, EAI and Associated Electric Cooperative, Inc. ("AECI") (collectively "Parties"). The Amended Interchange Agreement is designed to supersede and replace the existing Interchange Agreement between the Parties and currently on file at the Federal Energy Regulatory Commission ("FERC") or "Commission". ESI and Ameren requested Commission acceptance of this filing on December 18, 2011, because the Amended Interchange Agreement takes effect immediately upon regulatory approval, including the obligation to commence construction of new transmission facilities.

³ The Amended Interchange Agreement recognizes the 500 kV transmission line that runs between EAI's Dell Substation (where AECI's Dell Facility is interconnected), AECI's New Madrid Substation, and the 345kV transmission line that runs between New

1 MISO. If Ameren were no longer a member of MISO, MISO would no longer have a
2 physical interconnection with Entergy Arkansas, therefore Entergy would be required to
3 make other arrangements that would include transmission expansion and arrangements
4 with SPP, AECI, Ameren, and TVA. Ameren's continued participation in MISO is key
5 to Entergy's ability to integrate by late 2013.

6 **Q. BECAUSE OF AMEREN'S MEMBERSHIP IN MISO, THE BENEFITS AMEREN**
7 **WOULD POTENTIALLY GAIN THROUGH ENTERGY'S MEMBERSHIP IN**
8 **MISO, AND THE RECENTLY EXTENDED INTERCONNECTION**
9 **ARRANGEMENT WITH ENTERGY, DO YOU BELIEVE AMEREN'S**
10 **CONTINUED MEMBERSHIP AFFECTS MORE THAN JUST AMEREN'S**
11 **MISSOURI CUSTOMERS?**

12 A. Yes. The significant issues between SPP and MISO and potential integration of Entergy
13 into MISO will affect all Missouri customers as well as SPP customers. Therefore, if the
14 disputes between SPP, MISO, and SPP members, including Empire, are not equitably
15 resolved as well as the cost and operational impact issues related to Empire's Plum Point
16 Power Station, Ameren Missouri's continued participation in MISO will pose a detriment
17 to Empire's customers.

18 **Q. PLEASE EXPLAIN HOW THE INTEGRATION OF ENTERGY MAY RESULT**
19 **IN INCREASED TRANSMISSION DELIVERY AND OPERATIONAL COSTS**
20 **FOR EMPIRE.**

21 A. Empire is a co-owner of the Plum Point Energy Station, a recently completed 670-
22 megawatt, coal-fired generating facility near Osceola, Arkansas, which entered

Madrid and Ameren's Lutesville Substation as a three-party interconnection. EAI and Ameren, each have 500MW of contract capacity.

1 commercial operation on September 1, 2010. Empire District's 7.52% ownership interest
2 entitles it to approximately 50 MW of Plum Point's capacity and associated energy. In
3 addition, Empire District entered into a long-term (30 year) purchased power agreement
4 for an additional 7.5% of Plum Point capacity, with the option to purchase an undivided
5 ownership interest in 2015 in the approximately 50 MW covered by the purchased power
6 agreement. Empire District's entitlements to Plum Point are base-load Designated
7 Network Resources for Empire District under the SPP Open Access Transmission Tariff.
8 Since Plum Point is physically located on Entergy Arkansas's transmission system,
9 Empire procured long term (20 years) point to point transmission service from Entergy
10 Services, Inc. The transmission service agreement (TSA) was entered into in August
11 2006 and accepted by FERC in Docket Number ER06-1436. Transmission service
12 pricing for this firm transmission service is based on the FERC accepted Schedule 7 of
13 Entergy Services Open Access Transmission Tariff, which is currently approximately
14 \$17.76/kW-year or \$1.8MM per year. It is our understanding from both Entergy
15 Services, Inc. and MISO representatives that Empire's transmission service for Plum
16 Point would be immediately converted to MISO's Schedule 7 through and out
17 transmission service, which is currently \$29.76/kW-year or \$2.976MM. In addition,
18 Plum Point is located in the PLUM Balancing Authority Area within the Entergy
19 Arkansas transmission service area. Balancing Authority services for PLUM are provided
20 by Constellation Energy Control and Dispatch, LLC ("CECD"). In the event the PLUM
21 Balancing Authority were required to be consolidated with the MISO Balancing
22 Authority and were subject to MISO's scheduling and congestion provisions, Empire
23 would expect costs to be even higher for delivery of receipts of capacity and energy from

1 PLUM to Empire's Balancing Authority Area within SPP or the SPP Consolidated
2 Balancing Authority, once it becomes operational in 2014.

3 **Q. BASED ON THE INFORMATION YOU HAVE RECEIVED FROM MISO AND**
4 **ENTERGY SERVICES REGARDING HOW EMPIRE'S EXISTING**
5 **TRANSMISSION SERVICE ARRANGEMENTS WILL BE HANDLED AFTER**
6 **ENTERGY INTEGRATES INTO MISO, WHAT IMPACT WILL THERE BE ON**
7 **EMPIRE'S MISSOURI CUSTOMERS?**

8 A. Assuming that Empire will be forced to convert its Plum Point transmission service to
9 MISO, under MISO's Schedule 7 rates, terms, and conditions and the difference in MISO
10 and Entergy Services, Inc. rates is approximately \$1.2MM per year, then Empire's
11 Missouri customers will see approximately 89% of those costs for an increase in costs of
12 approximately \$1MM per year.

13 **Q. DOES EMPIRE AGREE WITH ENTERGY AND MISO'S SUGGESTION THAT**
14 **UPON ENTERGY'S INTEGRATION INTO MISO THAT EMPIRE'S PLUM**
15 **POINT TRANSMISSION SERVICE WILL BE AUTOMATICALLY**
16 **CONVERTED TO MISO SERVICE?**

17 A. No.

18 **Q. WHY NOT?**

19 A. Empire believes that due to Entergy's voluntary decision to join MISO over SPP that
20 such decision should hold harmless 3rd parties, such as Empire. In addition, Entergy
21 believes that FERC will not accept MISO's Schedule 7 through and out rate as just and
22 reasonable since the service to be provided exists today through Entergy's system.
23 Entergy and MISO must honor the contractual commitment entered into in 2006 by the

1 parties pursuant to Entergy's Open Access Tariff. In addition, Empire believes that if
2 Entergy elected to join SPP, instead of MISO, that the SPP RTO would honor the
3 existing Plum Point transmission service agreement and not force the conversion as it
4 relates to rates. In addition, Entergy's integration into SPP would potentially reduce
5 Missouri customers' Plum Point transmission service delivery charges after 2030, as the
6 point to point service would convert to SPP network integration transmission service at
7 that time. Hence, EDE would no longer incur an Entergy point to point transmission
8 service cost for Plum Point delivery.

9 **Q. DOES EMPIRE KNOW HOW THIS ISSUE WILL ULTIMATELY BE**
10 **DECIDED?**

11 A. No, it does not. However, the positions that have been taken thus far create the potential
12 for financial impacts on Empire and its customers.

13 **IV. RESOLUTION TO ISSUES/CONCERNS**

14 **Q. IS IT POSSIBLE TO ADDRESS THE CONCERNS YOU HAVE RAISED SUCH**
15 **THAT AMEREN'S CONTINUED PARTICIPATION IN MISO WOULD NOT BE**
16 **A DETRIMENT TO EMPIRE'S CUSTOMERS AND OTHER MISSOURI**
17 **CUSTOMERS?**

18 A. Yes. However, MISO, MISO members and Entergy must be willing to work with SPP,
19 Empire, and other SPP members to expeditiously and satisfactorily resolve concerns and
20 issues. It is critical that appropriate modifications (that include, but are not limited to,
21 flow gate and transmission expansion rights and cost allocations, and loop flow
22 compensation provisions) to the existing Joint Operating Agreement between MISO and
23 SPP be completed in a timely manner. Such modifications must hold Empire and other

1 SPP members harmless for impacts due to MISO's existing market flows and future
2 integration of Entergy into MISO. Although dialogue regarding the JOA concerns and
3 issues is underway, Empire is not optimistic that a timely and acceptable settlement will
4 be achieved. In addition, the provisions of Empire's transmission service for the delivery
5 of Plum Point capacity and energy post Entergy integration must be resolved in favor of
6 the existing agreements.

7 **Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

8 A. Yes.