

BARY K. WARREN  
REBUTTAL TESTIMONY

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Service Commission

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Witness: Bary K. Warren

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Sponsoring Party: Empire

Case No. EO-2013-0431

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI

REBUTTAL TESTIMONY

OF

BARY K. WARREN

ON BEHALF OF

THE EMPIRE DISTRICT ELECTRIC COMPANY

May 24, 2013

Empire Exhibit No. 21  
Date 6-18-13 Reporter KF  
File No. EO-2013 0431

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REBUTTAL TESTIMONY  
THE EMPIRE DISTRICT ELECTRIC COMPANY  
BEFORE THE  
MISSOURI PUBLIC SERVICE COMMISSION

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**I. INTRODUCTION**

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

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

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

A. I am presently employed by The Empire District Electric Company. ("Empire" or "Company") as the Director of Transmission Policy and Compliance. I have been employed by Empire for more than 10 years and in the electric industry for over 27 years. My current responsibilities include the development, implementation, and advocacy of corporate transmission policy and strategy as well as oversight of balancing authority and transmission system operations, NERC reliability compliance and reporting. I also monitor and participate in FERC and multiple state commission regulatory proceedings, as well as SPP stakeholder committees, such as the SPP Seams Steering Committee, Markets and Operations Policy Committee, Regional Tariff Working Group, RSC Cost Allocation Working Group, Regional State Committee, Board of Directors, and the Regional Allocation Review Task Force.

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

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

1 **II. PURPOSE**

2

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

6 **A.** My testimony is presented in response to the Direct Testimony of Richard C. Riley. Mr.  
7 Riley presented testimony on behalf of Entergy Arkansas, Inc. (“EAI”).

8

9 **Q. TO WHAT PORTION OF MR. RILEY’S REBUTTAL TESTIMONY ARE YOU**  
10 **RESPONDING?**

11 **A.** Mr. Riley’s stated purpose is “to support EAI’s Notification of Intent to Change  
12 Functional Control of Its Missouri Electric Transmission Facilities to the Midwest  
13 Independent Transmission System Operator, Inc. Regional Transmission Organization or  
14 Alternative Request to Change Functional Control.” In response to his descriptions, I  
15 will clarify Empire’s interconnection with the EAI facilities and explain how this change  
16 will impact Empire’s customers.

17

18 **III. FACILITIES**

19

20 **Q. ON PAGE 7, LINES 15 – 17, EAI WITNESS RILEY STATES THAT “EAI’S**  
21 **FACILITIES IN MISSOURI ARE USED TO FURNISH WHOLESALE**  
22 **ELECTRIC SERVICE IN MISSOURI TO VARIOUS CITIES AND ELECTRIC**  
23 **COOPERATIVES SUBJECT TO THE RATE JURSDICTION OF THE FERC.” IS**

**1            THAT A COMPLETE STATEMENT OF HOW THOSE FACILITIES ARE**  
**2            USED?**

3    A.    No. In addition to “cities and electric cooperatives,” EAI’s Missouri facilities are directly  
4           interconnected with those of Empire, an investor-owned utility, subject to the jurisdiction  
5           of this Commission. Empire has a very important physical interconnect with EAI in  
6           Missouri that delivers capacity and energy to Empire’s Missouri wholesale and retail  
7           consumers from the EAI transmission system that includes the facilities that are the  
8           subject of the Joint Application.

9  
10    **Q.    IS THIS CONFUSION PRESENT ELSEWHERE IN EAI WITNESS RILEY’S**  
11           **TESTIMONY?**

12    A.    Yes. On page 16, lines 20 – 22, of his Direct Testimony, Mr. Riley claims EAI’s  
13           situation is distinct partially because he says “EAI’s limited transmission facilities in  
14           Missouri are used to furnish only wholesale electric service to various cities and electric  
15           cooperatives in Missouri . . .”.

16  
17    **Q.    ARE THERE OTHER AREAS YOU BELIEVE NEED CLARIFICATION IN**  
18           **THAT SAME TESTIMONY?**

19    A.    Yes. Mr. Riley states that EAI also does not have any retail customers in Missouri, does  
20           not maintain tariffs on file in Missouri, and further does not hold itself out as offering  
21           service to the general public in Missouri. EAI’s service certainly impacts a great number  
22           of members of the general public in Missouri. EAI provides firm point to point  
23           transmission service across its facilities to Empire and other SPP customers. EDE’s

1 receipt of capacity and energy from Plum Point is delivered from those facilities to the  
2 general wholesale market in the region and specifically to EDE's Missouri wholesale and  
3 retail customers.  
4

5 **Q. WHAT IS THE NATURE OF EMPIRE'S CONNECTION WITH THE EAI**  
6 **FACILITIES?**

7 A. Empire has a critical 161kV bulk electric system interconnection with EAI at Empire's  
8 Powersite Substation located near the Ozark Beach Hydro Plant near Forsyth, Missouri.  
9 Empire currently has Interconnection Agreements between itself, Arkansas Power and  
10 Light (now Entergy Arkansas, Inc.), Plum Point Energy Partners and Entergy Services.  
11 Empire is a network integration transmission service member of the SPP RTO and a firm  
12 point to point transmission service customer of EAI, with both an ownership and  
13 purchase power share of the Plum Point coal fired power station, located near Osceola,  
14 Arkansas. Such delivery of the Plum Point capacity and energy relies directly on the  
15 service availability of this 161kV interconnection that is one of the facilities subject to  
16 this Application (Joint App., App. 4). The maintenance and operation of this  
17 interconnection along with the overall EAI transfer of all of its transmission assets to ITC  
18 will directly affect the cost of power delivery to Empire's retail customers. Specifically,  
19 this described interconnection is required to be "in service" for the delivery of Plum Point  
20 Power Station capacity and energy to Empire and the Southwest Power Pool (SPP). In  
21 addition to the direct interconnection facilities, any other EAI transmission facilities  
22 required to maintain a continuous path between the interconnection with Empire and the

1 interconnection of the Plum Point facility in eastern Arkansas are required for Empire to  
2 deliver from the Plum Point facility to Empire.

3  
4 **IV. IMPACT OF TRANSFER ON EMPIRE'S CUSTOMERS**

5  
6 **Q. EAI WITNESS RILEY DESCRIBES ON PAGE 20, LINES 5-15 HOW HE**  
7 **BELIEVES TRANSMISSION SERVICE TO EAI'S CUSTOMERS IN MISSOURI**  
8 **WILL CHANGE IF EAI JOINS MISO. DO YOU AGREE WITH HIS**  
9 **DESCRIPTION?**

10 **A.** To some extent.

11  
12 **Q. HOW WOULD YOU DESCRIBE THE CHANGE THAT WOULD RESULT FOR**  
13 **EMPIRE?**

14 **A.** As described above, Empire is a co-owner of the Plum Point Energy Station, a 670-  
15 megawatt, coal-fired generating facility near Osceola, Arkansas, which entered  
16 commercial operation on September 1, 2010. Empire's 7.52% ownership interest entitles  
17 it to approximately 50 MW of Plum Point's capacity and associated energy. In addition,  
18 Empire entered into a long-term (30 year) purchased power agreement for an additional  
19 7.5% of Plum Point capacity, with the option to purchase an undivided ownership interest  
20 in 2015 in the approximately 50 MW covered by the purchased power agreement.  
21 Empire's entitlements to Plum Point are base-load Designated Network Resources for  
22 Empire under the SPP Open Access Transmission Tariff. Since Plum Point is physically  
23 located on Entergy Arkansas's transmission system, Empire procured long term (20

1 years) point to point transmission service from Entergy Services, Inc. The transmission  
2 service agreement (TSA) was entered into in August 2006 and accepted by FERC in  
3 Docket Number ER06-1436. Transmission service pricing for this firm transmission  
4 service is based on the FERC accepted Schedule 7 of Entergy Services Open Access  
5 Transmission Tariff, which is currently approximately \$17.76/kW-year or \$1.8MM per  
6 year. It is our understanding from both Entergy Services, Inc. and MISO  
7 representatives that Empire's transmission service for Plum Point would be immediately  
8 converted to MISO's Schedule 7 through and out transmission service, which is currently  
9 \$29.76/kW-year or \$2.976MM.

10  
11 **Q. WHAT DO YOU ESTIMATE TO BE THE IMPACT OF THIS CHANGE ON**  
12 **EMPIRE'S MISSOURI CUSTOMERS?**

13 A. Assuming that Empire will be forced to convert its Plum Point transmission service to  
14 MISO, under MISO's Schedule 7 rates, terms, and conditions and the difference in MISO  
15 and Entergy Services, Inc. rates is approximately \$1.2MM per year, then Empire's  
16 Missouri customers will see approximately 89% of those costs for an increase in costs of  
17 approximately \$1MM per year. Further assuming that the proposed transmission asset  
18 transaction between ITC and EAI will be completed, we anticipate the aforementioned  
19 increases will be even higher due to ITC's different capital structure and higher FERC  
20 return on equity.

21  
22 **Q. WILL EMPIRE EXPERIENCE OTHER INCREASES IN OPERATIONAL**  
23 **COSTS?**



1 A. Yes. In addition, Plum Point is located in the PLUM Balancing Authority Area within  
2 the Entergy Arkansas transmission service area. Balancing Authority services for PLUM  
3 are provided by Constellation Energy Control and Dispatch, LLC ("CECD"). It is our  
4 understanding that the PLUM Balancing Authority would likely be consolidated  
5 (continuation of the PLUM BA may be a higher cost option) with the MISO Balancing  
6 Authority (Entergy Local Balancing Authority as applicable) and will be subject to  
7 MISO's scheduling, loss, and congestion provisions, which in total may be higher than  
8 Entergy Services for delivery of receipts of capacity and energy from PLUM to Empire  
9 District's Balancing Authority Area within SPP or the SPP Consolidated Balancing  
10 Authority, once it becomes operational in 2014.

11  
12 **Q. IN MR. RILEY'S DIRECT TESTIMONY ON PAGE 13, HE STATES THAT IN**  
13 **THE ENTERGY OPERATING COMPANIES' MISO PROCEEDINGS BEFORE**  
14 **FEDERAL AND STATE REGULATORS, OPPOSITION TO EAI JOINING MISO**  
15 **WAS CONSIDERED. DO YOU BELIEVE THAT OPPOSITION**  
16 **ISSUES/CONCERNS HAVE BEEN CONSIDERED BY THE MISSOURI PUBLIC**  
17 **SERVICE COMMISSION IN REGARD TO THE POSSIBLE TRANSFER OF**  
18 **FUNCTIONAL CONTROL TO MISO?**

19 A. No. This Commission has yet to consider the issues and concerns referred to by Mr.  
20 Riley regarding how such seams and cost impact issues affect Missouri retail customers.

21  
22 **Q. PLEASE EXPLAIN THE ISSUE WITH LOOP FLOWS THAT MR. RILEY**  
23 **REFERS TO ON PAGE 13 OF HIS DIRECT TESTIMONY.**

1 A. Within the eastern electrical interconnection within the United States, loop flows between  
2 electric systems are common and in the past have been presumed to be de minimus for  
3 the most part. However, there are circumstances where balancing authorities and  
4 transmission operators agree that the unscheduled flow of energy is significant and  
5 requires mitigation in some form between the entities. Such mitigation could include the  
6 installation of electrical equipment to limit the unscheduled or unaccounted for flows  
7 between the systems and/or a financial agreement is reached to compensate the party  
8 being negatively impacted or harmed due to the loop flows. In Empire's situation, we are  
9 convinced based on "today's" experience between the SPP and MISO, that a significant  
10 quantity and frequency of loop flows are occurring on the SPP member systems from the  
11 MISO system which negatively impact Empire and SPP members. The negative impact  
12 could be limitations imposed by NERC or Reliability Coordinators on Empire and SPP  
13 members to receive economic power or be required to generate its high cost units in order  
14 to resolve congestion created due to these loop flows. We are confident that due to  
15 Entergy's lack of physical electrical interconnection between MISO/Ameren and Entergy  
16 Arkansas, loop flows between SPP and MISO will only be exasperated to the further  
17 detriment of Empire's Missouri retail customers and general public in western Missouri.

18  
19 **Q. WITH RESPECT TO THE LOOP FLOW ISSUES REFERRED TO BY MR.**  
20 **RILEY, DO YOU BELIEVE THE UNACCOUNTED FOR MARKET**  
21 **FLows/LOOP FLOWS BETWEEN SPP AND MISO DUE TO EAI'S TRANSFER**  
22 **OF FUNCTIONAL CONTROL TO MISO HAS BEEN ACCEPTABLY**  
23 **ADDRESSED BY SPP AND MISO?**

1 A. No. The parties have not resolved the issues and MISO and SPP continue to talk, but such  
2 resolution seems to be headed to resolution at FERC and the Circuit Courts.  
3

4 **Q. MR. RILEY INDICATES THAT THE ARKANSAS PUBLIC SERVICE**  
5 **COMMISSION (APSC) APPROVED THE EAI TRANSFER OF FUNCTIONAL**  
6 **CONTROL TO MISO WITH CONDITIONS. DO YOU BELIEVE THE APSC**  
7 **CONDITIONS (IF MET AND SUSTAINED) WILL PROTECT THE PUBLIC**  
8 **INTEREST OF MISSOURI RETAIL CUSTOMERS?**

9 A. No. Empire believes the conditions required by the APSC did not go far enough in  
10 requiring EAI to protect non-EAI Missouri retail customers from increased production  
11 and transmission costs due to EAI membership in MISO.  
12

13 **Q. WHAT SHOULD THIS COMMISSION DO WITH REGARD TO PROTECTING**  
14 **THE MISSOURI RETAIL CUSTOMERS FROM EAI POTENTIAL**  
15 **MEMBERSHIP IN MISO?**

16 A. First, the Commission should suspend or conditionally approve EAI's transfer of  
17 functional control, subject to the negotiation of an acceptable Joint Operating Agreement  
18 between MISO and SPP that includes resolution of unaccounted market flows/loop flows,  
19 and other issues/concerns raised by Missouri jurisdictional utilities, SPP, and other SPP  
20 stakeholders at FERC. Resolution of these issues is imperative to EAI application being  
21 found to "not be detrimental to the public interest." In the absence of such an agreement,  
22 Empire strongly believes its Missouri customers will be financially harmed by MISO's  
23 market business practices.

1

2 **Q. SHOULD THE COMMISSION REQUIRE ITS STAFF TO INVESTIGATE THE**  
3 **SPP/MISO JOINT OPERATING AGREEMENT DISPUTE AS PART OF THIS**  
4 **PROCEEDING?**

5 A. Yes. Staff should investigate this matter and report to the Commission its position on  
6 the issues/concerns raised by Empire, KCPL, and stakeholders. Such a report should  
7 include whatever conditions, if any; Staff believes are necessary to protect Empire and  
8 Missouri retail customers.

9

10 **Q. WHAT KEY CONDITION SHOULD THE COMMISSION REQUIRE AS PART**  
11 **OF ITS APPROVAL OF THIS APPLICATION?**

12 A. The Commission should require EAI and/or MISO to “hold harmless” non MISO  
13 Missouri retail consumers from all increased costs due to Entergy’s potential transfer of  
14 functional control to MISO.

15

16 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

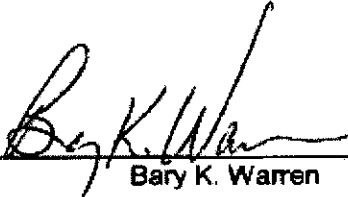
17 A. Yes.

18

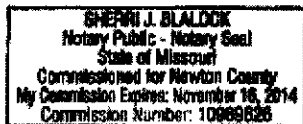
**AFFIDAVIT OF BARY K. WARREN**

STATE OF MISSOURI     )  
                                  ) ss  
COUNTY OF JASPER    )

On the 24<sup>th</sup> day of May, 2013, before me appeared Bary K Warren, to me personally known, who, being by me first duly sworn, states that he is Director of Transmission Policy and Compliance of The Empire District Electric Company and acknowledges that he has read the above and foregoing document and believes that the statements therein are true and correct to the best of his information, knowledge and belief.

  
Bary K. Warren

Subscribed and sworn to before me this 24<sup>th</sup> day of May, 2013.



  
Notary Public

My commission expires

NOV. 16, 2014