Exhibit No.:
Issues: Variable Fuel Expense
LaCygne In-service
Witness: Shawn E. Lange
Sponsoring Party: MO PSC Staff
Type of Exhibit: True-up Direct Testimony
Case No.: ER-2014-0370
Date Testimony Prepared: July 7, 2015

MISSOURI PUBLIC SERVICE COMMISSION

REGULATORY REVIEW DIVISION

TRUE-UP DIRECT TESTIMONY

OF

SHAWN E. LANGE

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. ER-2014-0370

Jefferson City, Missouri
July 2015

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

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BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Kansas City Power & Light Company's Request for Authority to Implement a General Rate Increase for Electric Service	))))	Case No. ER-2014-0370

AFFIDAVIT OF SHAWN E. LANGE

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

COMES NOW, Shawn E. Lange and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached True-up Direct Testimony; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Shawn E. Lange

Subscribed and sworn to before me this 7th day of July, 2015.

LAURA DISTLER
Notary Public, Notary Seal
State of Missouri
Cole County
Commission # 15203914
My Commission Expires June 21, 2019

Notary Public

TRUE-UP DIRECT TESTIMONY

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TRUE-UP DIRECT TESTIMONY

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SHAWN E. LANGE

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. ER-2014-0370

Q. Please state your name and business address.

A. My name is Shawn E. Lange and my business address is Missouri Public Service Commission, P.O. Box 360, Jefferson City, MO 65102.

Q. Are you the same Shawn E. Lange who contributed to Staff's Cost of Service Report filed in this case?

A. Yes, I am.

Q. What is the purpose of your True-up direct testimony?

A. The purpose of my True-up direct testimony is to provide the variable fuel and purchased power expense incorporating all known and measurable changes as of May 31, 2015, as well as to discuss the in-service of the La Cygne Environmental Retrofit Project ("LERP").

At the time direct testimony was filed in this case, the LERP evaluation was not complete. Subsequent to the filing of direct testimony, LERP has satisfactorily met the established in-service criteria and should be considered "fully operational and used for service."

VARIABLE FUEL EXPENSE

Q. How have you revised your production model for true-up?

A. I have updated the time periods reflected in certain model assumptions to change the ending period from the update cut off to the true-up cut off. I have also made certain modifications to the modeling associated with the La Cygne generating unit to account for the presence of the air quality control system ("AQCS") equipment.

Q. What is the value of the variable fuel and purchased power expense?

A. The Staff estimates the variable fuel and purchased power expense for Kansas City Power & Light ("KCPL") for known and measureable changes through May 31, 2015, to be $197,859,946 total Company basis.

Q. What is your recommendation?

A. I recommend that the Commission adopt the updated variable fuel and purchased power expense that Staff modeled.

LA CYGNE IN-SERVICE

Project Description

Q. Please describe the project designated as the LERP.

A. Westar and KCPL jointly own the La Cygne site with each company owning a 50% ownership share. The La Cygne site consists of two units. La Cygne Unit 1 is rated at 840 MW and utilizes a supercritical cyclone boiler. A Selective Catalytic Reduction ("SCR") system was installed on La Cygne Unit 1 to reduce NOx emissions in 2007 and was included in rate base in Case No. ER-2007-0291. La Cygne Unit 2 is rated at 710 MW and utilizes radiant opposed-fired pulverized coal boiler.

The LERP includes AQCS equipment installed on both La Cygne Unit 1 and La Cygne Unit 2. The LERP for La Cygne Unit 1 includes the following equipment:

- Power Activated Carbon injection system ("PAC")
- Pulse Jet Fabric Filter system ("Baghouse")

- Wet Flue Gas Desulfurization system ("FGD" or "Scrubber")
- Induced Draft Fans ("ID fans")

The LERP for La Cygne Unit 2 includes the following equipment:

- Over Fire Air ("OFA")
- Low NOx Burners
- SCR
- PAC
- Baghouse
- Wet Scrubber
- ID fans

Also included in the project are common facilities for both units. The common facilities include, but may not be limited to the following equipment:

- Water treatment building and equipment
- Warehouse(s)
- Dual-flue chimney
- Reagent preparation building and equipment
- Dewatering building and equipment
- Electrical buildings
- Limestone storage pile and handling equipment
- Gypsum storage pile and handling equipment
- Air quality control system maintenance building

Q. Have you personally visited the facility being considered in this testimony?

A. Yes. I visited the site on April 24, 2013, September 26, 2013, February 23, 2015, and May 18, 2015. During the visits, walk-through tours were conducted, equipment inspections performed, and operating equipment observations were accomplished. During the May 18, 2015, site visit, both generating units and AQCS equipment were observed during normal operation.

IN-SERVICE CRITERIA

Q. What are in-service criteria?

A. In-service criteria are a set of operational tests or operational requirements developed by the Staff to determine whether a new unit is "fully operational and used for service."

Q. Where does the phrase "fully operational and used for service" come from?

A. The phrase comes from Section 393.135, RSMo. 2000, a statute that was adopted by Initiative, Proposition No. 1, on November 2, 1976. Section 393.135, RSMo. 2000, provides as follows:

> Any charge made or demanded by an electrical corporation for service, or in connection therewith, which is based on the costs of construction in progress upon any existing or new facility of the electrical corporation, or any other cost associated with owning, operating, maintaining, or financing any property before it is fully operational and used for service, is unjust and unreasonable, and is prohibited. (Emphasis added)

Q. Were in-service criteria developed for LERP?

A. Yes. Staff and KCP&L agreed to in-service criteria for LERP.

Q. Has the Staff evaluated LERP utilizing the established in-service criteria?

A. Yes.

Q. What were the results of those evaluations?

A. The results are consistent with the established in-service criteria. The results of the evaluations are summarized in Schedule SEL-1.

Q. What is your conclusion regarding in-service criteria for LERP?

A. Based on my review and analysis of the data and inspection of the facilities, LERP has met all of the required in-service criteria effective April 30, 2015, for La Cygne

unit 1 and effective March 24, 2015, for La Cygne Unit 2 and common. Therefore, I recommend that LERP be considered fully operational and used for service.

Q. Does this conclude your True-up direct testimony?

A. Yes, it does.

Schedule SEL-1

Is Deemed

Highly Confidential

In Its Entirety