Exhibit No.: Issues: Witness: Sponsoring Party: Type of Exhibit: Case No.: Date Testimony Prepared:

In-Service Criteria Jerry Scheible, P.E. MO PSC Staff Surrebuttal Testimony ER-2014-0258 February 6, 2015 Filed March 23, 2015 Data Center Missouri Public Service Commission

# MISSOURI PUBLIC SERVICE COMMISSION

## **REGULATORY REVIEW DIVISION**

### SURREBUTTAL TESTIMONY

## OF

## JERRY SCHEIBLE, P.E.

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

### CASE NO. ER-2014-0258

Jefferson City, Missouri February 2015

Stort Exhibit No. 231 Date 2-23-15 Reporter ++ File NOFR- 2014 -0258

#### **BEFORE THE PUBLIC SERVICE COMMISSION**

### **OF THE STATE OF MISSOURI**

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

Case No. ER-2014-0258

#### AFFIDAVIT OF JERRY SCHEIBLE

STATE OF MISSOURI ) ) ss COUNTY OF COLE )

Jerry Scheible, of lawful age, on his oath states: that he has participated in the preparation of the following Surrebuttal Testimony in question and answer form, consisting of 2 pages of Surrebuttal Testimony to be presented in the above case, that the answers in the following Surrebuttal 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.

Subscribed and sworn to before me this  $b^{\frac{t}{2}}$  day of February, 2015.

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

Jusin indesmarten

1 2	SURREBUTTAL TESTIMONY
3	OF
5	JERRY SCHEIBLE, P.E.
. 7	UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI
8 9 10	CASE NO. ER-2014-0258
10 11 12	Q. Please state your name and business address.
13	A. My name is Jerry Scheible and my business address is Missouri Public Service
14	Commission, P. O. Box 360, Jefferson City, Missouri 65102.
15	Q. Are you the same Jerry Scheible that supported sections in Staff's Revenue
16	Requirement Cost of Service Report in this case?
17	A. Yes.
18	Q. What is the purpose of your testimony?
19	A. Unit 1 of the Labadie Electrostatic Precipitator ("ESP") project had not yet
20	satisfied in-service criteria at the time of the filing of Staff's Revenue Requirement Cost of
21	Service Report in this case. My testimony will provide an update of the construction and
22	testing progress and determine a date which Unit 1 is considered to be fully operational and
23	used for service.
24	Q. Can Staff provide an update of the construction and testing progress for
25	Unit 1?
26	A. Yes. Unit 1 was returned to service on December 3, 2014. Staff performed
27	site-visits on December 5, 2013, June 25, 2014, October 3, 2014, and December 11, 2014, to
28	witness construction progress, to verify the operation of Unit 1 and to witness the
29	performance testing in progress. Ameren Missouri later provided Staff the results of the

.

1

Rebuttal Testimony of Jerry Scheible

4

5

8

9

performance testing, which Staff reviewed, commented on, and ultimately accepted as
 satisfactory. The in-service criteria for Unit 1 were satisfied as of December 13, 2014. The
 results of the evaluations are summarized in Schedule JS-1.

Q. Does Staff propose a specific date that Unit 1 should be considered fully operational and used for service?

A. Yes. Staff and Ameren Missouri agree that the unit be considered fully
operational and used for service as of December 13, 2014.

Q. Does this conclude your surrebuttal testimony?

A. Yes.

# In-Service Criteria for Labadie 1--Particulate and Opacity Control Equipment

1. All major construction work is complete.

Based on personal observations of the facility on the following dates, all major construction is complete: December 15, 2013; June 25, 2014; October 3, 2014; and December 11, 2014.

2. All preoperational tests have been successfully completed.

There are no known issues regarding preoperational testing results.

3. Equipment successfully meets operational contract guarantees necessary to achieve the emission rates for the durations described in items (4) and (5) below.

Applicable operational contract guarantees have been satisfied.

4. The equipment shall be operational and demonstrate its ability to achieve filterable particulate matter (PM) emission rates less than 0.030 lb/mmBtu, and operate at a stack opacity (six minute average) less than or equal to 10% over a continuous four (4) hour period while the generating unit is operating at or above 90% of its design generation (644 MW gross). A 3<sup>rd</sup> party test contractor will utilize EPA Method 5 to demonstrate PM compliance.

Particulate matter emission rates and stack opacity were tested for by a 3<sup>rd</sup> party test contractor utilizing EPA Method 5 during a period beginning on December 8, 2014, and ending on December 13, 2014. Generation at or above 90% of design generation was achieved during a continuous span of over four (4) hours during that period.

*PM emission rates were measured at no greater than 0.0090 lb/mmBtu during the four-hour span. Therefore Unit 1 complied with this PM emission rate criteria as of December 9, 2014.* 

The six-minute average stack opacity was no greater than 7.88% during the four-hour span. Therefore Unit 1 complied with this opacity criteria as of December 9, 2014.

5. The equipment shall also demonstrate its ability to achieve filterable particulate matter (PM) emission rates less than 0.030 lb/mmBtu, and to operate at a stack opacity (six minute average) less than or equal to 10% over a continuous 120-hour period while the generating unit is operating at or above 80% of its design generation (644 MW gross). A 3<sup>rd</sup> party test contractor will utilize EPA Method 5 to demonstrate PM compliance.

Particulate matter emission rates and stack opacity were tested for by a 3<sup>rd</sup> party test contractor utilizing EPA Method 5 during a period beginning on December 8, 2014, and ending on December 13, 2014. Generation at or above 80% of design generation was achieved during the entire 120-hour-plus test period.

*PM emission rates were measured at no greater than 0.0091 lb/mmBtu during the test period. Therefore Unit 1 complied with this PM emission rate criteria as of December 13, 2014.* 

The six-minute average stack opacity was no greater than 9.28% at any point during the period. Therefore Unit 1 complied with this opacity criteria as of December 13, 2014.

6. Existing plant instrumentation to be used to demonstrate opacity compliance.

Existing plant instrumentation was successfully utilized to test for opacity compliance.