

Exhibit No.:
Issue(s): Heat Rate Testing
Witness: J Luebbert
Sponsoring Party: MoPSC Staff
Type of Exhibit: Surrebuttal Testimony
Case No.: ER-2016-0285
Date Testimony Prepared: January 27, 2017

MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF DIVISION

ENERGY RESOURCES

SURREBUTTAL TESTIMONY

OF

J LUEBBERT

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. ER-2016-0285

Jefferson City, Missouri
January 2017

1 comply with 4 CSR 240-3.161(3)(Q). For example, the heat rate test for La Cygne #1 was
2 performed July 21, 2016 and July 22, 2016, which is after KCPL's direct filing date of this
3 general rate case. One purpose for the requirements in 4 CSR 240-3.161(3)(Q) is to ensure
4 that the utility has conducted heat rate tests recently for each generating unit for which the
5 utility will request recovery of fuel costs through its FAC. KCPL has demonstrated that since
6 July 1, 2014, the Company has indeed conducted heat rate tests for all generating units for
7 which the utility is requesting recovery of fuel costs through its FAC.

8 Q. Mr. Robinett states on page 15, lines 19 through 21, of his rebuttal testimony,
9 "Despite recognizing the purpose of heat rate testing is [sic] ensure the company monitors and
10 maintains the efficiency of its generating units Staff does not appear to substantively evaluate
11 the information provided." Do you have reason to expect that KCPL conducted the heat rate
12 tests incorrectly?

13 A. No. I have no reason to believe that KCPL performed the heat rate tests
14 incorrectly. KCPL developed a Generating Unit Heat Rate Testing Procedure to comply with
15 4 CSR 240-3.161(2)(P) as part of its previous rate case, Case No. ER-2014-0370, without any
16 objection by the parties of the case.¹ On Page 203, lines 3 through 6, and Page 204, lines 1
17 through 3 of Staff's Revenue Requirement Cost of Service report ("COS report") for Case No.
18 ER-2014-0370, Staff witness Randy S. Gross states:

19 KCPL provides a written procedure for heat rate testing in KCPL witness Burton L.
20 Crawford's direct testimony as indicated on Schedule BLC-7 and identified as revision
21 1 of procedure ETP-002, entitled "Generating Unit Heat Rate Testing Procedure." The
22 procedure is the product of a series of Staff reviews and feedback starting with a set of
23 testing procedures submitted in Case No. EO-2008-0156 by Aquila, Inc. (Aquila),
24 which were approved by the Commission on January 15, 2008, and procedures
25 submitted as revision 0 in Case No. ER-2010-0356 in support of the continuation of
26 GMO's FAC."

¹ Direct testimony of KCPL witness Burton L. Crawford, Case No. ER-2014-0370, Schedule BLC-7

1 Q. Did OPC submit any objection or evidence that the aforementioned Generating
2 Unit Heat Rate Testing Procedure was faulty or was not adhered to by KCPL in either Case
3 No. ER-2014-0370 or this case?

4 A. No.

5 Q. How does KCPL calculate the heat rates of generating units?

6 A. The heat rate for each generating unit is calculated by dividing the total Btu
7 content of fuel burned for electric generation by the resulting net kilowatt-hours of generation.

8 Q. How many heat-rate test results has KCPL been required to submit?

9 A. KCPL submitted heat-rate test results as part of the direct filing documents in
10 Case. No. ER-2014-0370. That case was the first time the utility was required to submit heat
11 rate test results as part of the requirement of 4 CSR 240-3.161(3)(Q). Therefore, Staff only
12 has the results for two heat-rate tests per generating unit to use in comparison for the majority
13 of the generating units in the KCPL fleet.²

14 Q. On page 16, lines 4 and 5 of his rebuttal testimony Mr. Robinett states, “Staff
15 has neither recommended nor accepted the heat rates provided by KCPL as base lines to
16 compare future test results against.” Is baseline defined in 4 CSR 240-3.161?

17 A. No. However, 4 CSR 240-3.161(2)(P) requires the following:

18 (Q) When an electric utility files to establish a RAM as described in 4 CSR
19 240-20.090(2), the electric utility shall file the following supporting
20 information as part of, or in addition to, its direct testimony:

21
22 (P) A proposed schedule and testing plan with written procedures for heat rate
23 tests and/or efficiency tests for all of the electric utility’s nuclear and non-
24 nuclear generators, steam, gas, and oil turbines and heat recovery steam
25 generators (HRSG) to determine the *base level* of efficiency for each of the
26 units;

27 [*Emphasis added*]
28

² KCPL performs a monthly heat rate calculation for Wolf Creek nuclear plant

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1 Staff interprets 4 CSR 240-3.161(2)(P) to mean the base level heat rate for each nuclear and
2 steam generating unit is a static heat rate at the time the FAC is first requested and approved.
3 When it first applied for an FAC in Case No. ER-2014-0370, KCPL complied with this rule
4 by proposing the aforementioned Generating Unit Heat Rate Testing Procedure as well as
5 proposing a testing schedule. By supplying heat rate test results as required by 4 CSR 240-
6 3.161(3)(Q) in Case No. ER-2014-0370, KCPL supplied a base level of efficiency for each of
7 the units. There is no other mention of base level of efficiency or any mention of baseline heat
8 rates in 4 CSR 240-3.161(3) which constitutes the minimum filing requirements for a utility
9 requesting that an FAC be continued with modification.

10 Q. Does Staff recommend or accept baseline heat rates for utilities upon request
11 for the continuation of an FAC?

12 A. No. Each generating unit has different heat-rate test results based on operating
13 parameters. Setting a baseline heat-rate test result for each generating unit requires an
14 extensive knowledge of the operating parameters and testing conditions for each of the
15 generating units. Therefore, Staff relies on the expertise of the utility employees to conduct
16 the heat rate tests and understand the operating parameters, testing conditions, and results of
17 subsequent heat rate testing.

18 Q. On page 16, lines 4 and 5 of his rebuttal testimony Mr. Robinett states, "OPC
19 recommends the parties work together to develop heat rate baselines to be used for KCPL."
20 Do you agree with Mr. Robinett's recommendation?

21 A. No. 4- CSR 240-3.161 does not define or require baseline heat rates for each
22 generating unit. Mr. Robinett has not defined what exactly is meant by baseline heat rates.
23 Nor has he proposed how a baseline heat rate should be calculated or established. Since

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1 4-CSR 240-3.161 does not require baseline heat rates to be set for each generating unit and
2 baseline heat rates have not been previously defined, Staff finds that Mr. Robinett's
3 recommendation is inappropriate for this rate case. Mr. Robinett's recommendation to require
4 baseline heat rates may be better suited for an FAC rulemaking.

5 Q. Does this conclude your surrebuttal testimony?

6 A. Yes, it does.

7

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-2016-0285

AFFIDAVIT OF J LUEBBERT

STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

COMES NOW J LUEBBERT and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Surrebuttal Testimony; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

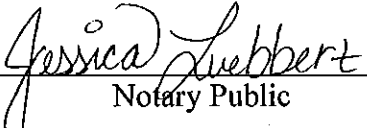


J LUEBBERT

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 26th day of January, 2017.

JESSICA LUEBBERT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: February 19, 2019
Commission Number: 15633434



Notary Public