

FILED

NOV 7 2016

Missouri Public
Service Commission

MEMORANDUM

TO: Missouri Public Service Commission Official Case File No. EC-2016-0230,
"James and Angela Dickson, Complainants v. Kansas City Power and Light,
Respondent"

FROM: Charles T. Poston, PE, Engineering Analysis Unit

SUBJECT: Staff Inspection Report

Date: August 31, 2016

PURPOSE OF INSPECTION AND INSPECTION RESULTS

On Thursday, August 25, 2016, Hampton Williams and Charles Poston of the Missouri Public Service Commission Staff ("Staff") participated in an inspection at the home of Mr. and Mrs. James and Angela Dickson. The inspection was conducted to verify that the Advanced Meter Infrastructure ("AMI") electric meter installed at the Dicksons' home was operating in a manner consistent with Staff expectations and was free of any gross defects or malfunctions. The inspection did not include any testing of the AMI meter with regards to its accuracy in recording customer energy usage.

Following the inspection, Staff concluded that there were no obvious problems with the AMI meter at the Dicksons' home. Staff's visual inspection did not find degraded conditions that would imply any type of malfunction. Staff's observations of the readings from a radiofrequency measuring device indicated that the meter was transmitting data intermittently and that the transmissions were brief in nature. Such behavior was consistent with Staff expectations.

INSPECTION DETAILS

At 10:45am Staff's representatives arrived at the Dicksons' home, 11005 N. Brooklyn Ave., Kansas City, MO. Representatives of KCP&L Greater Missouri Operations Company ("GMO") arrived at approximately the same time. Corey Paczosa, Chris Gash, and Tia

Staff Exhibit No. 2
Date 10-26-16 Reporter ARC
File No. EC-2016-0230

Alexander were present to represent GMO and perform the inspection. Mr. Dickson was in attendance throughout the entire site visit.

Staff visually inspected the outside of the Dicksons' AMI meter and found no evidence of any external damage, malfunction, or tampering. Mr. Gash removed the faceplate from the meter base and performed a visual inspection of the exposed connections. No obvious faults or signs of damage were found.

In order to determine the behavior of the radio transmitter inside the AMI meter, Mr. Paczosa used a TESCO radiofrequency (RF) Meter. That instrument is capable of detecting the radio waves emitted by the AMI meter when it transmits energy usage data. Prior to use on the AMI meter, Mr. Paczosa verified operation of the instrument by placing it against a cellular phone. With the instrument turned on, Staff observed the instrument's needle deflect when the transmitter in the phone was in use. Following the verification of instrument functionality, Mr. Paczosa held the instrument approximately one foot away from the Dicksons' AMI meter. Staff observed the instrument's needle deflect several times in a manner that was consistent with the expected intermittent frequency of transmissions and duration of each transmission event.

Following the inspection at the Dicksons' home, Staff observed Mr. Paczosa perform the same measurement with the TESCO RF Meter on the AMI meter that was installed at 11009 N. Brooklyn Ave. Staff verified that both AMI meters were of the same type. Staff observed the same type of transmission behavior from both AMI meters.

Staff left the site at 11:05am after all inspection activities were completed.

TRANSMITTER TYPE DISCREPANCY

While reviewing the information collected during the inspection of the AMI meter at the Dicksons' home, Staff discovered a discrepancy between the information provided in previous filings and the equipment found installed in the field. The Federal Communications Commission

("FCC") Grant of Equipment Authorization provided by GMO in Exhibit A of its April 15, 2016 filing implied that the transmitter used in the AMI meter at the Dicksons' home was a Landis+Gyr 3G S4e Gridstream communications module (FCC ID No. TEB-HUNTSU825). Staff's report also mentions that style of transmitter¹. However, Staff's examination of both the Dicksons' AMI meter and the AMI meter at 11009 N. Brooklyn Ave. indicated that a different style of transmitter was in use. Both AMI meters were inscribed with FCC ID No. TEB-HUNTSS762. That identifier is associated with the Landis+Gyr Cellnet+Hunt FOCUS Universal RF endpoint. Staff compared the specifications of the two different transmitters and found them to be broadly similar to one another. They operate at similar powers over the same range of frequencies and are subject to the same FCC requirements. Because of the comparable specifications of the two different styles of transmitters, Staff's previous conclusions remain unchanged.

CONCLUSIONS

The inspections performed at the Dicksons' home did not uncover any evidence that the AMI meter was either installed incorrectly or otherwise operating in a fashion inconsistent with the manufacturer's specifications. The AMI meter in question was found to have the same form, fit, and function as other residential AMI meters in use by GMO.

¹ See "Staff Report," May 13, 2016, pages 6-7 and Attachment C

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

James Dickson and Angela Dickson

Complainants,

v.

KCP&L Greater Missouri Operations
Company,

Respondent.

File No. EC-2016-0230

AFFIDAVIT

State of Missouri)
) ss.
County of Cole)

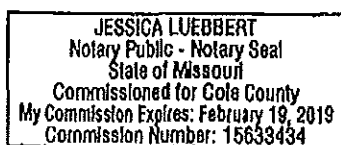
COMES NOW Charles T. Poston and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached Report; and that the same is true and correct according to his best knowledge and belief.

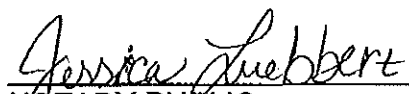
Further the Affiant sayeth not.


Charles T. Poston, P.E.

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 31st day of August, 2016.




NOTARY PUBLIC