# MISSOURI PUBLIC SERVICE COMMISSION

# STAFF REPORT

# FIRST PRUDENCE REVIEW OF COSTS

# RELATED TO THE FUEL ADJUSTMENT CLAUSE

# FOR THE ELECTRIC OPERATIONS

# OF

# KANSAS CITY POWER & LIGHT COMPANY

## CASE NO. EO-2017-0231

## September 29, 2015 through December 31, 2016

***Jefferson City, Missouri***
***October 27, 2017***

** Denotes Confidential Information **

Appendix A

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# I. EXECUTIVE SUMMARY

The Missouri Public Service Commission ("Commission") first authorized a Fuel Adjustment Clause ("FAC") for Kansas City Power & Light Company ("KCPL") in Case No. ER-2014-0370. Since then, the Commission has approved continuation of KCPL's FAC with modifications in its *Report and Order* in the Company's most recent general rate case: Case No. ER-2016-0285.

Commission Rule 4 CSR 240-20.090(7) and Missouri Revised Statute § 386.266.4 as supplemented require that the Commission's Staff ("Staff") conduct prudence reviews of an electric utility's FAC no less frequently than every 18 months. In this prudence review, Staff analyzed items affecting KCPL's fuel costs; purchased power costs; net emission allowance costs; transmission costs; off-system sales revenues; and renewable energy credit revenues for the first, second and third accumulation periods of KCPL's FAC ("prudence review period"). The first accumulation period started September 29, 2015 and ended December 31, 2015. The second accumulation period started January 1, 2016 and ended June 30, 2016. The third accumulation period started July 1, 2016 and ended December 31, 2016. The approximately 15-month prudence review period is from September 29, 2015 through December 31, 2016. This is Staff's first Prudence Review Report for KCPL's FAC.

In evaluating prudence, Staff reviews whether a reasonable person making the same decision would find both the information the decision-maker relied on and the process the decision-maker employed to be reasonable based on the circumstances at the time the decision was made, *i.e.*, without the benefit of hindsight. The decision actually made is disregarded; instead, the review evaluates the reasonableness of the information the decision-maker relied on and the decision-making process the decision-maker employed. If either the information relied upon or the decision-making process employed was imprudent, then Staff examines whether the imprudent decision caused any harm to ratepayers. Only if an imprudent decision resulted in harm to ratepayers, will Staff recommend a refund.

Staff analyzed a variety of items in examining whether KCPL was imprudent when it incurred the fuel and purchased power costs associated with its FAC. Based on its review, Staff found no evidence of imprudence by KCPL for the items it examined for the period of September 29, 2015, through December 31, 2016.

# II. INTRODUCTION

## A. General Description of KCPL's FAC

Table 1 identifies KCPL's Commission-approved FAC tariff sheets which were applicable for service provided by KCPL to its customers during the period September 29, 2015, through December 31, 2016:

**Table 1**

| Table 1: KCPL's Commission-approved FAC tariff sheets (September 29, 2015 through December 31, 2016) |
|---|
| Fourth Revised Sheet No. 50 |
| Third Revised Sheet No. 50.1 |
| Second Revised Sheet No. 50.2 |
| Second Revised Sheet No. 50.3 |
| Second Revised Sheet No. 50.4 |
| Second Revised Sheet No. 50.5 |
| Second Revised Sheet No. 50.6 |
| Second Revised Sheet No. 50.7 |
| Second Revised Sheet No. 50.8 |
| Second Revised Sheet No. 50.9 |

For each accumulation period ("AP"),[1] KCPL's Commission-approved FAC allows KCPL to recover from (if the actual net energy costs exceed) or refund to (if the actual net energy costs are less than) its ratepayers ninety-five percent (95%) of its Missouri jurisdictional over- or

[1] Accumulation periods are: June through November and December through May.

under-recovery of Actual Net Energy Costs"[2] for the accumulation period relative to the Net Base Energy Cost[3] amount for the accumulation period. KCPL accumulates variable fuel costs, purchased power costs, transmission costs and net emissions costs minus off-system sales revenues and renewable energy credit revenues during six-month accumulation periods. Each six-month accumulation period is followed by a twelve-month recovery period where the over- or under-recovery (including the monthly application of interest)[4] during the previous six-month accumulation period relative to the net base energy cost amount is flowed through to ratepayers by an increase or decrease in the FAC Fuel Adjustment Rates ("FAR"). An adjustment to a FAR is designed to offset the over- or under-recovery for a given AP by the end of the twelve-month recovery period ("RP").[5] Because the FAR rarely, if ever, will exactly match the required offset, KCPL's FAC is designed to true-up the difference between the revenues billed and the revenues authorized (including the monthly application of interest) for collection during recovery periods. Any disallowance the Commission orders as a result of a prudence review shall include interest at the Company's short-term interest rate and will be accounted for as an item of cost[6] in a future filing to adjust the FAR.

## B. Prudence Standard

In *State ex rel. Associated Natural Gas Co. v. Public Service Com'n of State of Mo.*, the Western District Court of Appeals stated the Commission defined its prudence standard as follows:

> [A] utility's costs are presumed to be prudently incurred.... However, the presumption does not survive "a showing of inefficiency or improvidence... [W]here some other participant in the proceeding creates a serious doubt as to the prudence of expenditure, then the applicant has the burden of dispelling these doubts and proving the questioned expenditure to have been prudent.

[2] "Actual Net Energy Costs" are equal to fuel costs (FC) plus net emission costs (E) plus purchased power costs (PP) plus transmission costs (TC) minus off-system sales revenue (OSSR) and renewable energy credit revenue (R) as defined on KCPL's Commission-approved FAC tariff sheets.
[3] KCPL's P.S.C.MO. No. 7, Second Revised Sheet No. 50.7 defines net base energy cost (B) as net system input times the base factor per kWh. The base factor per kWh is approved by the Commission in each general rate case in which the Company's FAC is continued with modification.
[4] See Section IV. Interest of this Prudence Review Report.
[5] Recovery periods are: January through June and July through December.
[6] See PRUDENCE REVIEW on KCPLs P.S.C.MO. No. 7, Second Revised l Sheet No. 50.9.

> In the same case, the PSC noted that this test of prudence should not be based upon hindsight, but upon a reasonableness standard: [T]he company's conduct should be judged by asking whether the conduct was reasonable at the time, under all the circumstances, considering that the company had to solve its problem prospectively rather than in reliance on hindsight. In effect, our responsibility is to determine how reasonable people would have performed the tasks that confronted the company.
>
> 954 S.W.2d 520, 528-29 (Mo. App. W.D., 1997) (citations omitted).

In reversing the Commission in that case, the Court did not criticize the Commission's definition of prudence, but held, in part, that to disallow a utility's recovery of costs from its ratepayers based on imprudence the Commission must determine the detrimental impact of that imprudence on the utility's ratepayers. *Id*. at 529-30. This is the prudence standard Staff has followed in this review. Staff reviewed for imprudence the areas identified and discussed below for KCPL's first, second, and third six-month accumulation periods.

## III. FUEL COSTS, PURCHASED POWER COSTS, NET EMISSION COSTS

KCPL's FAC includes four major components of costs: fuel costs, purchased power costs, net emission costs and transmission costs. It also includes two components of revenues: off-system sales revenues and renewable energy credit revenues. Table 2 is a breakdown of KCPL's fuel costs, purchased power costs, net emission costs, transmission costs, off-system sales revenues, and renewable energy credit revenues for the period of September 29, 2015 through December 31, 2016:

*continued on next page*

**Table 2 - Confidential**

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*Staff Experts/Witnesses: Mathew J. Barnes, Dana E. Eaves, J Luebbert and David C. Roos*

## A. Utilization of Generation Capacity

### 1. Description

The purpose of this section is to provide an overview of KCPL's available supply-side and demand response resources and review the process by which generating units are selected to satisfy native load requirements during the review period. KCPL's generating units consists of a mixture of coal, nuclear, natural gas, diesel, and wind as indicated in Table 3. Table 4 provides a list of KCPL's long term Power Purchase Agreements (PPA). Table 5 contains a capacity summary for KCPL's current fleet. KCPL's demand response programs are titled MPower and Demand Response Incentive Agreement.

**Table 3[7] - Confidential**

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[7] KCPL response to Data Request No. 0016.

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**<u>Table 4 - Confidential</u>**

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**Table 5 - Confidential**

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**2. Summary of Cost Implications**

During the period from September 29, 2015 through December 31, 2016, KCPL utilized two separate demand response programs. Until May 31, 2016, qualified KCPL customers could elect to participate in the MPower program. The MPower tariff sheets were frozen on April 1, 2016. Once the tariff was frozen, no new customers could apply and be accepted into the MPower program. It was replaced with a similar demand response program, Demand Response Incentive ("DRI"), for KCPL's MEEIA Cycle 2.[8] The aggregate curtailable load from the DRI program as of November 30, 2016 was equal to 10,075 kW. The Company continues to add customers to the DRI program to fulfill MW target for MEEIA Cycle 2.[9] For DRI, the curtailment target and anticipated load reduction is 15 MW for MEEIA Cycle 2.

[8] KCPL response to Staff Data Request No. 0043.
[9] KCPL response to Staff Data Request No. 0044.

In the Integrated Marketplace ("IM"), the vast majority of generation dispatch decisions are made by SPP via established market requirements and processes. SPP market rules currently establish must offer requirements both for the Day Ahead Market ("DAM") and the Real Time Balancing Market ("RTBM"). With respect to the DAM, there is a Day Ahead Must Offer requirement which essentially states that Market Participants ("MP") must offer enough generation to cover that MP's next day projected peak load, ancillary service obligations and any firm sales the MP has made. In addition, the SPP Market Monitoring Unit monitors for Physical Withholding of generation, which further incentivizes MPs to offer much of their available generation in the DAM, even if they have already met their Must Offer requirement. With respect to the RTBM, SPP requires that all physically available generation be offered to the market. In accordance with SPP rules and requirements, KCPL submits generation offers in the DAM and RTBM. Once these offers have been submitted, the SPP market co-optimization processes take over from there. SPP market applications consider inputs such as system-wide requirements, generator operating parameters, offers from all MPs, and transmission system topology to arrive at the most cost effective and reliable generation solution possible. Some of these applications include the Security Constrained Unit Commitment ("SCUC") and Security Constrained Economic Dispatch ("SCED") tools. Once the least cost viable solution is arrived at, SPP issues operating instructions to MPs. Under the SPP market construct, MPs are given the flexibility to let the SPP market decide entirely on its own when to commit a given unit or to self-commit the generator. A common example of the latter is if a unit needs to be online for required testing on a given day. Even if a generator is self-committed, this simply establishes that the unit will be online. SPP will still dispatch the unit via the SCED tool within its dispatchable range as established through the market submissions process.[10]

**3. Conclusion**

Staff did not observe any evidence of imprudent utilization of generation resources during the time period examined in this prudence review.

[10] KCPL response to Data Request No. 0012.

#### 4. Documents Reviewed

a. KCPL's responses to Staff Data Request Nos. 0001, 0010, 0011, 0012, 0013, 0015, 0016, 0017, 0018, 0019, 0022, 0041, 0043, 0044, 0052, 0052.1, 0053, 0053.1.

*Staff Expert/Witness: J. Luebbert*

### B. Heat Rates

#### 1. Description

Heat rates of generating units are an indicator of each unit's performance. A heat rate is a calculation of total volume of fuel burned for electric generation multiplied by the average heat content of that volume of fuel for a given time period divided by the total net generation of electricity in kilowatt hours (kWh) for that same time period.

#### 2. Summary of Cost Implications

Heat rates are inversely related to the efficiency of the generating unit. Increasing heat rates of specific units over time may indicate that a specific unit's efficiency is declining. Heat rates can vary greatly depending on operating conditions including but not limited to load, hours of operation, shut downs and startups, unit outages, derates, and weather conditions. Therefore, a good indication of unit performance for frequently used units is an analysis of the trend of heat rates over time. A permanent increase in monthly heat rates is commonly the result of a decrease in a generating unit's efficiency. This typically occurs when additional emissions reduction equipment is added to the exhaust of the generating unit. Continued utilization of units with sustained elevated heat rates could result in KCPL incurring higher fuel costs per unit of electricity generated than it would otherwise have incurred. If KCPL was imprudent in response to the ongoing trend of a unit's heat rate, ratepayer harm could result from an increase in the fuel costs that are collected through KCPL's FAC charges.

The heat rates of La Cygne 2 have shown an increase over time since 2011. ** ______________________________

______________________________

**[11]

### 3. Conclusion

In reviewing the monthly heat rates of the KCPL's generating units, Staff found no indication that KCPL acted imprudently during the review period.

### 4. Documents Reviewed

a. KCPL's responses to Staff Data Request Nos. 0005, 0006, 0015, 0016, 0041, 0051, 0051.1, 0054, 0054.1, 0055, 0056, 0056.1; and

b. Monthly Outage data submitted by KCPL in compliance with Rule 4 CSR 240-3.190.

*Staff Expert/Witness: J Luebbert*

## C. Plant Outages

### 1. Description

Generating stations' outages generally can be classified as scheduled outages, forced outages, or partial outages ("derating"). Scheduled outages consist of either a planned outage or a maintenance outage. A planned outage is one that is scheduled well in advance, with a predetermined duration and occurring only once or twice a year. Turbine and boiler overhauls, inspections, testing, and nuclear refueling are typical planned outages. A maintenance outage is one that can be deferred beyond the end of the next weekend but must be taken before the next planned outage. A forced outage is an outage that cannot be deferred beyond the next weekend and a partial outage or derating is a condition that exists that requires the unit to be limited to an energy output below maximum capacity.

Outages taken at any of the generating units have an impact on how much KCPL will pay for fuel and purchased power. Any planned outage during peak load demand times or a period of high replacement energy prices has the potential result of KCPL paying more for fuel and purchased power costs than it would have paid if the outage were planned during forecasted low load times. Periodic planned outages are required to maintain each generating unit in peak operating condition to minimize forced or maintenance outages that could occur during peak load demand or periods of high replacement energy prices.

[11] Response to Data Request No. 0056.

Staff examined the planned outages and their timing for imprudence. An example of an imprudent outage would be scheduling a planned outage of a large base loaded unit during a time of peak load or a period of high replacement energy prices.

KCPL has little or no control over the timing of maintenance or forced outages of the generating stations it owns and operates when such outages are the result of unforeseen events. The Company has no control over the timing of planned outages for generating stations it does not operate. These types of outages are not included as a part of this prudence review.

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**[12]

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[12] Response to Data Request No. 0055.

**[13]

** **[14]

** **[15]

** **[16]

### 2. Summary of Cost Implications

An imprudent planned outage could result in increased cost of purchased power by KCPL from the SPP IM as well as a decrease in off-system sales revenues through the SPP IM.

[13] Ibid.
[14] Ibid.
[15] Ibid.
[16] Ibid.

### 3. Conclusion

Staff did not find any evidence of imprudent planned outages by KCPL during the time period examined in this review.

### 4. Documents Reviewed

a. KCPL responses to Staff Data Request Nos. 0001, 0004, 0005, 0006, 0013, 0015, 0016, 0017; and 0055.

*Staff Expert/Witness: J Luebbert*

## D. Natural Gas Fuel and Cross Hedging

### 1. Descriptions

For this prudence review period Staff reviewed KCPL's natural gas fuel hedging and cross hedging activities. During GMO's general rate case, Case No. ER-2016-0156, GMO agreed - in the Commission-approved Stipulation and Agreement[17] ("2016 Stipulation") – that it would 1) discontinue the practice of purchasing NYMEX futures and other financial instruments that was used to mitigate price risk for natural gas fuel and energy (purchase power), and 2) unwind all of its hedges associated with natural gas.. KCPL also initiated the unwinding of financial instruments as soon as possible as KCPL's hedging activities are directly tied to GMO's practices and could not continue in the absence of GMO's hedging program. KCPL began its unwinding of these transactions in September 2016 and the last transaction was executed in October 2016. In the revised answer provided to Staff's Data Request No. 0049, KCPL recorded a net loss of $** _____ **[18] for the review period which includes unwinding activities.

### 2. Summary of Cost Implication

If KCPL was imprudent in its management of its hedging activities ratepayer harm could result in an increase in future FAC charges.

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[17] In the Matter of Kansas City Power & Light Greater Missouri Operations Company's Request for Authority to Implement a general Rate Increase for Electric Services, Case No. ER-2016-0156, *NON-UNANIMOUS PARTIAL STIPULATION AND AGREEMENT.*

[18] This amount is reported in Table 2 of this report as ** _______ ** which does not reflect the factoring-up to account for this expense being Missouri only.

### 3. Conclusion

Staff has verified that KCPL management unwound the NYMEX futures contracts and other financial instruments during the review period as was agreed to among parties in GMO's rate case

### 4. Documents Reviewed

a. GMO's 2016 Stipulation and Agreement;

b. KCPL's General Ledger;

c. KCPL's Quarterly Surveillance Monitoring Report; and

d. Staff Data Request Nos. 0003, 0026, 0045, 0049, and 0050.

*Staff Expert/Witness: Dana E. Eaves*

## E. Natural Gas Costs

### 1. Description

For the Review Period, $5,816,312 or 1% of KCPL's total fuel costs, purchased power costs, transmission costs, and net emission costs was associated with the natural gas used in generating electricity. Not included in this amount is the net gain of $497,155 associated with its natural gas hedging activities. The cost of natural gas includes various miscellaneous charges such as firm transportation service charges and other fuel handling expenses. KCPL receives natural gas services from 16 gas supply companies and 5 natural gas transportation companies. The companies are identified in Table 6:

*continued on next page*

**<u>Table 6 - Confidential</u>**

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Table 7 lists the Gas Transportation Contracts in effect for the review period:

**<u>Table 7 - Confidential</u>**

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Table 8 identifies KCPL's peaking generating units that burn natural gas:

| Table 8 – Peak Units Burning Natural Gas |
|---|
| Hawthorn 6, 7, 8 and 9 |
| Osawatomie 1 |
| West Gardner 1, 2, 3 and 4 |

During the prudence review period, KCPL's natural gas price averaged ** __ ** per MMBtu. Natural gas prices have remained at low levels due to advanced technologies to explore for and produce natural gas. This advanced technology is called "fracking". Fracking is defined as follows:

> Fracking, or hydraulic fracturing, is the process of extracting natural gas from shale rock layers deep within the earth. Fracking makes it possible to produce natural gas extraction in shale plays that were once unreachable with conventional technologies. Recent advancements in drilling technology have led to new man-made hydraulic fractures in shale plays that were once not available for exploration. In fact, three dimensional imaging helps scientists determine the precise locations for drilling.
>
> Horizontal drilling (along with traditional vertical drilling) allows for the injection of highly pressurized fracking fluids into the shale area. This creates new channels within the rock from which natural gas is extracted at higher than traditional rates. This drilling process can take up to a month, while the drilling teams delve more than a mile into the Earth's surface. After which, the well is cased with cement to ensure groundwater protection, and the shale is hydraulically fractured with water and other fracking fluids.[19]

### 2. Summary of Cost Implications

If KCPL was imprudent in its purchasing decisions relating to natural gas, rate payer harm could result from increased FAC charges.

### 3. Conclusion

Staff found no indication KCPL's purchases of natural gas were imprudent during the Review Period.

### 4. Documents Reviewed

a. KCPL's responses to Staff Data Request Nos. 0003 and 0027; and

b. KCPL's General Ledger, FAC calculation, and other work papers from this case to determine the amount that KCPL paid for natural gas as compared to the total cost of natural gas that KCPL incurred during the review period.

*Staff Expert/Witness: Matthew J. Barnes*

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[19] http://www.what-is-fracking.com.

## F. Coal and Rail Transportation Costs

### 1. Description

For the prudency review period, $285,285,753 or 58% of KCPL's total fuel costs, purchased power costs, transmission costs, and net emission allowance costs was associated with the coal used in generating electricity. The cost of coal includes various miscellaneous charges such as rail and other ground transportation service charges, and other fuel handling expenses. Staff reviewed 6 short and long-term coal purchase contracts. The counterparties for the contracts are identified in Table 9:

**<u>Table 9 - Confidential</u>**

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The contracts provide coal delivery to KCPL's Hawthorn 5, Iatan 1 and 2, LaCygne 1 and 2, and Montrose 2 and 3. The price of coal can either be a fixed price for the entire contract, a fixed price for each year of the contract, a base price plus an escalation as calculated per the contract, a price determined by the Master Purchase & Sales Agreement, or a price which is indexed based.

### 2. Summary of Cost Implications

If KCPL was imprudent in its decisions relating to purchasing and transporting coal, rate payer harm could result from an increase in FAC charges.

### 3. Conclusion

Staff found no indication that KCPL's purchases and transportation of coal or its coal-related contracts were imprudent during the review period.

#### 4. Documents Reviewed

a. KCPL's fixed coal contracts in place for the delivery of coal to each of its generating units;

b. KCPL's responses to Staff Data Request Nos. 0003, 0024 and 0029; and

c. KCPL's General Ledger, FAR calculations, and other work papers to determine the amount that KCPL paid for coal as compared to the total cost of coal that KCPL incurred during its fourteenth, fifteenth and sixteenth accumulation periods.

*Staff Expert/Witness: Matthew J. Barnes*

### G. Fuel Oil Costs

#### 1. Description

For the prudency review period, $5,461,624 or 1% of KCPL's total fuel costs, purchased power costs, transmission costs, and net emission allowance costs was associated with the fuel oil used in generating electricity. The cost of fuel oil includes various miscellaneous charges, such as rail and/or ground transportation service charges and other miscellaneous fuel handling expenses. Staff reviewed KCPL's 2 oil contracts that were in place during the review period. The contracts provide a primary delivery location and agreement on the price. The price is based on the market price at the time KCPL purchases the fuel oil. The counterparties for the fuel oil contracts are identified in Table 10:

**Table 10 - Confidential**

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The fuel oil contracts provide delivery of fuel oil to various generating units.

#### 2. Summary of Cost Implications

If KCPL imprudently purchased fuel oil, rate payer harm could result from increased FAC charges.

#### 3. Conclusion

Staff found no indication KCPL's costs associated with its fuel oil contracts in place were imprudent during the review period.

**4. Documents Reviewed**

a. KCPL's General Ledger;

b. KCPL's responses to Staff Data Request Nos. 0003 and 0028; and

c. FAR and other supporting work papers in this case to determine the amount KCPL paid for fuel oil as compared to the total cost of fuel oil KCPL incurred during the review period.

*Staff Expert/Witness: Matthew J. Barnes*

## H. Transmission Costs

### 1. Description

For the prudency review period, $5,650,840 or 1% of KCPL's total fuel cost, purchased power costs, transmission costs and net emission costs was associated with transmission costs. KCPL's FAC Second Revised Sheet No. 50.3 (Applicable to Service Provided September 29, 2015 through June 7, 2017), effective July 27, 2017, defines the "TC" component as:

> Transmission Costs:
>
> The following costs reflected in FERC Account Number 565:
>
> Subaccount 565000: non-SPP transmission used to serve off system sales or to make purchases for load and 7.3% of the SPP transmission service costs which includes the schedules listed below as well as any adjustments to the charges in the schedules below:
>
> > Schedule 7 – Long Term Firm and Short Term Point to Point Transmission Service
> > Schedule 8 – Non Firm Point to Point Transmission Service
> > Schedule 9 – Network Integration Transmission Service
> > Schedule 10 – Wholesale Distribution Service
> > Schedule 11 – Base Plan Zonal Charge and Region Wide Charge
>
> Subaccount 565020: the allocation of the allowed costs in the 565000 account attributed to native load;
>
> Subaccount 565027: the allocation of the allowed costs in the 565000 account attributed to transmission demand charges;
>
> Subaccount 565030: the allocation of the allowed costs in account 565000 attributed to off-system sales.

### 2. Summary of Cost Implications

If KCPL imprudently included transmission costs in the FAC, rate payer harm could result from increased FAC charges.

### 3. Conclusion

Staff found no indication that KCPL’s transmission costs were imprudent during the review period.

### 4. Documents Reviewed

a. KCPL’s General Ledger;

b. KCPL’s responses to Staff Data Request No. 0002; and

c. FAR and other supporting work papers in this case.

*Staff Expert/Witness: Matthew J. Barnes*

## I. Nuclear Fuel

### 1. Description

For the prudency review period ** __________ ** or ** __ ** of KCPL’s fuel costs, purchased power costs, transmission costs, and net emission allowance costs is associated with nuclear fuel used in the generation of electricity at the Wolf Creek Nuclear Operating Corporation’s generating unit. KCPL owns 47% of Wolf Creek Nuclear Operating Corporation.

### 2. Summary of Cost Implications

If KCPL was imprudent in its purchasing decisions relating to nuclear fuel, rate payer harm could result from increased FAC charges.

### 3. Conclusion

Staff found no indication that KCPL nuclear fuel costs were imprudent during the Review Period.

#### 4. Documents Reviewed

a. KCPL's 2016 Annual Report; and

b. GMO's General Ledger, FAC calculation, and other work papers from this case to determine the amount that GMO paid for natural gas as compared to the total cost of natural gas that GMO incurred during the Review Period.

*Staff Expert/Witness: Matthew J. Barnes*

### J. $SO_2$ Emission Allowances

#### 1. Description

The Cross-State Air Pollution Rule ("CSAPR") is a ruling by the United States Environmental Protection Agency ("EPA") that requires a number of states, including Missouri, to reduce power plant emissions that contribute to ozone and/or fine particle pollution in other states. The CSAPR replaced EPA's 2005 Clean Air Interstate Rule (CAIR), following the direction of a 2008 court decision that required EPA to issue a replacement regulation. CSAPR implementation began on January 1, 2015.

The CSAPR requires Missouri to reduce its annual emissions of sulfur dioxide ($SO_2$) and nitrous oxides ($NO_x$) to help downwind states attain the 24-hour National Ambient Air Quality Standards ("NAAQS"). The CSAPR also requires Missouri to reduce ozone season emissions of $NO_x$ to help downwind states attain the 8-hour NAAQS.

On September 7, 2016, the EPA revised the CSAPR ozone season $NO_X$ program by finalizing an update to CSAPR for the 2008 ozone NAAQS, known as the CSAPR Update. The CSAPR Update ozone season $NO_X$ program will largely replace the original CSAPR ozone season $NO_X$ program starting on May 1, 2017. The CSAPR Update will further reduce summertime $NO_X$ emissions from power plants in the eastern U.S.

The requirements of CSAPR were in effect for the entire review period from September 29, 2015 through December 31, 2016. The requirements for the CSAPR Update are outside of the review period.

The primary mechanism of CSAPR is a cap-and-trade program that allows a major source of $NO_X$ and/or $SO_2$ to trade excess allowances when its emissions of a specific pollutant fall below its cap for that pollutant. Originally, the EPA issued a model cap-and-trade program for power plants, which could have been used by states as the primary control mechanism under CAIR. This model, with modifications, had continued under CSAPR.

KCPL has an inventory of past, current and future vintage $SO_2$ emission allowances. Since KCPL receives more $SO_2$ emission allowances ("$SO_2$ allowances") from the U.S. Environmental Protection Agency ("EPA") than it requires for its own coal-burning operations, it may sell all or part of these surplus allowances. Appendix A of the Experimental Regulatory Plan, approved by the Commission in Case No. EO-2005-0329, provides a $SO_2$ Emissions Allowance Management Policy ("SEAMP") that requires all proceeds and costs of all transactions identified in the SEAMP to be recorded and amortized over the same time period used to depreciate environmental assets (emission control equipment and other emission control investments).

For the prudence review period ending December 31, 2016, KCPL's net emission allowance was negative $5,100,351.

**2. Summary of Cost Implications**

If KCPL imprudently used, purchased or banked its $SO_2$ emission allowances, ratepayer harm could result from an increase in KCPL's FAC charges.

**3. Conclusion**

Staff found no indication that KCPL was imprudent in its purchases, banking, or usage of CSAPR $SO_2$ allowances.

**4. Documents Reviewed**

a. Company responses to Staff's Data Request Nos. 0034, 0036, 0037, 0038, and 0039

b. Commission Report and Order Case No. EO-2005-0329;

c. Staff COS Reports, Case Nos. ER-2012-0174, ER-2014-0370, and ER-2016-0285; and

d. KCPL FAR Section 7 Filings Case Nos. ER-2016-0198, ER-2017-0033, and ER-2017-0204.

*Staff Expert/Witness: David C. Roos*

## K. Off-System Sales Revenue

### 1. Description

Off-system sales revenues ("OSSR") is a component of KCPL's FAC; specifically, Second Revised Sheet No. 50.3 (Applicable to Service Provided September 29, 2015 through June 7, 2017, effective July 27, 2017, defines the OSSR component as:

> Revenues from Off-System Sales:
>
> The following revenues or costs reflected in FERC Account Number 447:
>
> Subaccount 447020: all revenues from off-system sales. This includes charges and credits related to the SPP IM including, energy, ancillary services, revenue sufficiency (such as make whole payments and out of merit payments and distributions), revenue neutrality payments and distributions, over collected losses payments and distributions, TCR and ARR settlements, demand reductions, virtual energy costs and revenues and related fees where the virtual energy transaction is a hedge in support of physical operations related to a generating resource or load, generation/export charges, ancillary services including non-performance and distribution payments and SPP uplift revenues or credits. Off-system sales revenues from full and partial requirements sales to municipalities that are served through bilateral contracts in excess of one year shall be excluded from OSSR component; Subaccount 447012: capacity charges for capacity sales one year or less in duration; Subaccount 447030: the allocation of the includable sales in account 447020 not attributed to retail sales.

Staff reviewed the off-system sales quantities and revenues over the prudence review period, and KCPL's off-system sales revenue amount is $151,322,587.

### 2. Summary of Cost Implications

KCPL's revenues from off-system sales are an offset against total fuel costs, purchased power costs, transmission costs and net emission allowance costs. This is because KCPL's ratepayers pay for the resources used to generate any energy that KCPL sells.[20] If KCPL did not make available its generating units in the SPP for off-system sales to be

[20] Serving those ratepayers (native load) is a higher priority than making an off-system sale.

made, ratepayers could be harmed by such imprudence as a result of an increase in KCPL's FAC charges.[21]

**3. Conclusion**

Staff found no indication that KCPL imprudently withheld availability of its generating units in the SPP for off-system sales to be made.

**4. Documents Reviewed**

a. KCPL's responses to Staff Data Request No. 0002; and

b. KCPL's filings in this case and FAC tariff sheets.

*Staff Expert/Witness: Matthew J. Barnes*

## L. Renewable Energy Credit Purchases and Revenues

**1. Description**

The Missouri Renewable Energy Standard ("RES")[22] was adopted through a voters' ballot initiative (Proposition C) on November 4, 2008,[23] and requires all investor-owned electric utilities in Missouri to provide at least two percent (2%) of their retail electricity sales using renewable energy resources in each calendar year 2011 through 2013, and to increase that percentage over time to at least fifteen percent (15%) by 2021.[24] Commission rule 4 CSR 240-20.100, which first became effective September 30, 2010, contains the definitions, structure, operations, and procedures for implementing the RES.

The RES rule creates two categories of energy-generating resources: non-renewable energy resources (including purchased power from non-renewable energy sources) and renewable energy resources (including purchased power from renewable energy sources).[25] Renewable energy resources produce electrical energy and include wind sources, solar

[21] Beginning March 1, 2014 the SPP implemented the Integrated Marketplace that changed GMO's practice of making off-system sales. See the Utilization of Generation Capacity section above.

[22]. § 393.1020 RSMo. Supp. 2013 and § 393.1030.1(1), RSMo. Supp. 2013.

[23] § 393.1030, RSMo. Supp. 2013.

[24] However, the annual level of required renewable energy resources may be constrained due to 4 CSR 240-20.100(5)(A) Retail Rate Impact. (A) The retail rate impact, as calculated in subsection (5)(B), may not exceed one percent (1%) for prudent costs of renewable energy resources directly attributable to RES compliance. The retail rate impact shall be calculated on an incremental basis for each planning year that includes the addition of renewable generation directly attributable to RES compliance through procurement or development of renewable energy resources, averaged over the succeeding ten (10)-year period, and shall exclude renewable energy resources owned or under contract prior to the effective date of this rule.

[25] 4 CSR 240-20.100(5)(B).

sources, thermal sources, hydroelectric sources, photovoltaic cells and panels, fuel cells using hydrogen produced by one (1) of the above named electrical energy sources, and other sources of energy that become available after August 28, 2007, and are certified as renewable by the Missouri Department of Economic Development -- Division of Energy ("Division of Energy"). Once an energy resource is certified, it begins producing RECs, with one (1) REC representing one (1) megawatt-hour of electricity that has been generated from the renewable energy resource. These credits can be sold and/or traded in the market place bundled with or without the energy that generated the REC.[26] The cost of a REC (as a RES compliance cost) cannot be recovered through the FAC.[27] Revenues from the sale of RECs are recovered through the FAC as an off-set to fuel costs.

During the review period, the RES rule required KCPL to annually serve 10% of its retail load using renewable energy resources. Also, during the review period, KCPL did not sell or purchase solar RECs outside of those bundled with purchased power from qualified customer generator's operational solar electric systems as a condition of receiving solar rebates.[28] KCPL received non-solar RECs bundled with renewable energy from KCPL's Spearville 1 and Spearville 2 wind facilities, and contractually through purchased power agreements with five renewable energy providers (Cimarron 2, Spearville 3, Slate Creek, Waverly, and Osborn Wind. Some of the RECs created by generation at Spearville 1, Spearville 2, Spearville 3, and Cimarron 2 were used for 2015 and 2016 RES compliance.

In Staff Data Request Nos. 0058, 0059, 0060, 0061, 0062, 0063 Staff requested "the dollar values assigned to RECs from energy purchases from Cimarron 2, Osborn Wind Energy Center, Slate Creek Wind, Spearville 3, and Waverly Wind Farm accrued for the period September 29, 2015 through December 31, 2016, and included in calculating KCPL's Fuel Adjustment Clause charges…." KCPL responded "there were no dollar values assigned to RECs from energy purchases from the Cimarron 2, [Osborn Wind Energy Center], [Slate Creek Wind], [Spearville 3], [and Waverly Wind Farm] that were included in the calculation of the Fuel Adjustment Clause for the period September 29, 2015 through December 31, 2016…"

---

[26] 4 CSR 240-20.100(6)(B)(5)(J).
[27] 4 CSR 240-20.100(6)(A)(16).
[28] *KCPL 2015 Annual Renewable Energy Standard Compliance Report* and *KCPL 2016 Annual Renewable Energy Standard Compliance Report [Corrected]*

#### 2. Summary of Cost Implications:

If the Commission found that KCPL was imprudent in its management of RECs, by including the cost of purchasing RECs in calculating its FAC charges, or not selling RECs when it had the opportunity to do so, ratepayer harm could result from increased costs or decreased revenues being included in the calculation of its FAC charges.

#### 3. Conclusion

With regards to FAC prudency, Staff did not find any evidence of imprudence by KCPL's management of its RECs during the review period.

#### 4. Documents Reviewed

a. Staff Data Request Nos. 0058 through 0065;

b. KCPL 2015 and 2016 Annual Renewable Energy Standard Compliance Reports;

c. Staff Report in Case EO-2016-0258; and

d. Staff Report in Case EO-2017-0269.

*Staff Expert/Witness: David C. Roos*

### M. Cimarron 2 Wind Farm Purchased Power Agreement

#### 1. Description

KCPL has a long-term (20-year) Purchased Power Agreement ("PPA") with CPV Cimarron II Renewable Energy Company, LLC for energy and RECs generated by the Cimarron 2 Wind Farm located in Kansas. The contract is based on ** ________ ** of capacity that KCPL began receiving on June 1, 2012 at a fixed price of ** ____________ **. The Division of Energy certified the Cimarron 2 Wind Farm as a renewable energy resource on October 5, 2012. During the review period, KCPL used some Cimarron 2 RECs to comply with RES requirements. The contract is a "take-or pay" contract (i.e., KCPL has to receive and pay for the energy whether it needs the energy or not), which is a standard feature of many wind PPAs. The contract is for the energy and RECs generated by the wind farm. In its response to Staff Data Request No. 0058 KCPL stated, "There were no dollar values assigned to RECs from energy purchases from Cimarron 2 that were included in the calculation of the Fuel Adjustment Clause for the period September 29, 2015 through December 31, 2016". Costs of electricity under the Cimarron 2 PPA was ** __________ ** for September 29, 2015 through December 31, 2016.

### 2. Summary of Cost Implications Summary of Cost Implications

If KCPL imprudently included RES compliance costs in its FAC calculations, ratepayer harm could result from an increase in FAC charges.

### 3. Conclusions

Rule 4 CSR 240-20.090(1)(B) and (C), and KCPL's FAC allow for purchased power costs and revenues in FERC Account Number 555 to be recovered through the FAC. Staff found no indication that KCPL imprudently included the Cimarron 2 Wind Farm PPA costs in the FAC.

### 4. Documents Reviewed

a. Staff Data Request Nos. 0002, 0059, 0064, 0065;

b. KCPL 2015 Annual Renewable Energy Standard Compliance Plan;

c. KCPL 2016 Annual Renewable Energy Standard Compliance Plan;

d. Staff Report in Case No. EO-2016-0280; and

e. Staff Report in Case No. EO-2017-0269.

*Staff Expert/Witness: David C. Roos*

## N. Slate Creek Wind Project Purchased Power Agreement

### 1. Description

The Division of Energy certified Slate Creek Wind Project located in Kansas as a renewable energy resource on March 7, 2016. KCPL has a long-term (20-year) PPA with Slate Creek Wind Project, LLC for energy and RECs generated by the Slate Creek Wind Project beginning in November 2015. The contract is also a "take-or pay" contract for renewable wind energy and RECs and is based on a fixed energy price of ** ______________ ** and a capacity of ** ________. ** During the prudence review period, KCPL did not retire any Slate Creek Wind Project RECs to comply with RES requirements. In its response to Staff Data Request No. 0061 KCPL stated, There were no dollar values assigned to RECs from energy purchases from the Slate Creek Wind Project that were included in the calculation of the Fuel Adjustment Clause for the period September 29, 2015 through December 31, 2016. Costs of electricity under the Slate Creek Wind Project PPA was ** ___________ ** for September 29, 2015 through December 31, 2016.

### 2. Summary of Cost Implications

If KCPL imprudently included RES compliance costs in its FAC calculations, ratepayer harm could result from an increase in FAC charges.

### 3. Conclusions

Rule 4 CSR 240-20.090(1)(B) and (C) and KCPL's FAC tariff allow for purchase power costs and revenues in FERC Account Number 555 to be recovered through the FAC. Staff found no indication that KCPL imprudently included the Slate Creek Wind Project PPA costs in its FAC calculations.

### 4. Documents Reviewed

a. Staff Data Request Nos. 0002, 0061, 0064, 0065;

b. KCPL 2015 Annual Renewable Energy Standard Compliance Plan;

c. KCPL 2016 Annual Renewable Energy Standard Compliance Plan;

d. Staff Report in Case No. EO-2016-00280; and

e. Staff Report in Case No. EO-2017-00269.

*Staff Expert/Witness: David C. Roos*

## O. Osborn Wind Energy Purchased Power Agreement

### 1. Description

KCPL has a long-term (20-year) Purchased Power Agreement ("PPA") with NextEra Energy Resources for energy and RECs generated by the Osborn Wind Energy Center located in Missouri. The contract is based on a fixed price of ** ________________ ** and ** ________ ** of capacity that KCPL began receiving in December 2016, the last month of the review period. During the prudence review period, KCPL did not retire any Slate Creek Wind Project RECs to comply with RES requirements. In its response to Staff Data Request No. 0060 KCPL stated, "There were no dollar values assigned to RECs from energy purchases from the Slate Creek Wind Project that were included in the calculation of the Fuel Adjustment Clause for the period September 29, 2015 through December 31, 2016". The contract is a "take-or pay" contract (i.e., KCPL has to receive and pay for the energy whether it needs the energy or not), which is a standard feature of many wind PPAs. The contract is for the energy and RECs generated by the wind farm. Costs of electricity under the Osborn Wind Energy PPA was ** _______ ** for September 29, 2015 through December 31, 2016.

#### 2. Summary of Cost Implications Summary of Cost Implications

If KCPL imprudently included RES compliance costs from the Osborn Wind Energy PPA in its FAC calculations for the review period, ratepayer harm could result from an increase in FAC charges.

#### 3. Conclusions

Rule 4 CSR 240-20.090(1)(B) and (C), and KCPL's FAC tariff allows for purchased power costs and revenues in FERC Account Number 555 to be recovered through the FAC. Staff found no indication that KCPL imprudently included the Osborn Wind Energy PPA costs in the FAC.

#### 4. Documents Reviewed

a. Staff Data Request Nos. 0002, 0060, 0064, 0065;

b. KCPL 2015 Annual Renewable Energy Standard Compliance Plan;

c. KCPL 2016 Annual Renewable Energy Standard Compliance Plan;

d. Staff Report in Case No. EO-2016-0281; and

e. Staff Report in Case No. EO-2017-0270.

*Staff Expert/Witness: David C. Roos*

### P. Spearville 3 Wind Energy Facility Purchased Power Agreement

#### 1. Description

KCPL has a long-term (20-year) Purchased Power Agreement ("PPA") with Spearville 3, LLC for energy and RECs generated by the Spearville 3 Wind Energy Facility located in Kansas. The contract is based on a fixed price of ** _______________ ** and ** _______ ** of capacity that KCPL began receiving in October, 2012. The Division of Energy certified the Spearville 3 Wind Farm as a renewable energy resource on November 5, 2012. During the review period, KCPL retired some Spearville 3 RECs to comply with RES requirements. The contract is a "take-or pay" contract (i.e., KCPL has to receive and pay for the energy whether it needs the energy or not), which is a standard feature of many wind PPAs. The contract is for the energy and RECs generated by the wind farm. In its response to Staff Data Request No. 0062 KCPL stated, **"**There were no dollar values assigned to RECs from energy purchases from Spearville 3 that were included in the calculation of the Fuel Adjustment Clause for the period September 29, 2015 through December 31, 2016". Costs of electricity under the Spearville 3 PPA was ** __________ ** for September 29, 2015 through December 31, 2016.

#### 2. Summary of Cost Implications Summary of Cost Implications

If KCPL imprudently included RES compliance costs in its FAC calculations, ratepayer harm could result from an increase in FAC charges.

#### 3. Conclusions

Rule 4 CSR 240-20.090(1)(B) and (C), and KCPL's FAC tariff allows for purchased power costs and revenues in FERC Account Number 555 to be recovered through the FAC. Staff found no indication that KCPL imprudently included the Spearville 3 Wind Energy PPA costs in the FAC.

#### 4. Documents Reviewed

a. Staff Data Request Nos. 0002, 0062, 0064, 0065;

b. KCPL 2015 Annual Renewable Energy Standard Compliance Plan;

c. KCPL 2016 Annual Renewable Energy Standard Compliance Plan;

d. Staff Report in Case No. EO-2016-0280; and

e. Staff Report in Case No. EO-2017-0269.

*Staff Expert/Witness: David C. Roos*

### Q. Waverly Wind Farm Purchased Power Agreement

#### 1. Description

The Division of Energy certified Waverly Wind Farm located in Kansas as a renewable energy resource on January 26, 2016. KCPL has a long-term (20-year) PPA with Waverly Wind Farm, LLC for energy and RECs generated by the Waverly Wind Farm beginning in November 2015. The contract is also a "take-or pay" contract for renewable wind energy and RECs and is based on a fixed energy price of ** _______________ ** and a capacity of ** _____ . ** During the prudence review period, KCPL did not retire any Waverly Wind Farm RECs to comply with RES requirements. In its response to Staff Data

Request No. 0063 KCPL stated, "There were no dollar values assigned to RECs from energy purchases from the Slate Creek Wind Project that were included in the calculation of the Fuel Adjustment Clause for the period September 29, 2015 through December 31, 2016". Costs of electricity under the Slate Creek Wind Project PPA was ** __________ ** for September 29, 2015 through December 31, 2016.

### 2. Summary of Cost Implications

If KCPL imprudently included RES compliance costs in its FAC calculations, ratepayer harm could result from an increase in FAC charges.

### 3. Conclusions

Rule 4 CSR 240-20.090(1)(B) and (C) and KCPL's FAC tariff allows for purchase power costs and revenues in FERC Account Number 555 to be recovered through the FAC. Staff found no indication that KCPL imprudently included the Waverly Wind Farm PPA costs in its FAC calculations.

### 4. Documents Reviewed

a. Staff Data Request Nos. 0002, 0063, 0064, 0065;

b. KCPL 2015 Annual Renewable Energy Standard Compliance Plan;

c. KCPL 2016 Annual Renewable Energy Standard Compliance Plan;

d. Staff Report in Case No. EO-2016-00280; and

e. Staff Report in Case No. EO-2017-00269.

*Staff Expert/Witness: David C. Roos*

## R. Purchased Power Costs

### 1. Description

KCPL's FAC Second Revised Sheet No. 50.2, applicable to service provided September 29, 2015 through June 7, 2017, defines the Purchased Power Costs ("PP") components as:

PP = Purchased Power Costs:

The following costs or revenues reflected in FERC Account Number 555:

Subaccount 555005: capacity charges for capacity purchases one year or less in Duration;

Subaccount 555000: purchased power costs, energy charges from capacity purchases of any duration, insurance recoveries, and subrogation recoveries for purchased power expenses, hedging costs including broker commissions and fees (fees charged by an agent, or agent's company to facilitate transactions between buyers and sellers) and margins (cash or collateral used to secure or maintain the Company's hedge position with a brokerage or exchange), charges and credits related to the SPP Integrated Marketplace ("IM") including, energy, revenue neutrality, make whole and out of merit payments and distributions, over collected losses payments and distributions, Transmission Congestion Rights ("TCR") and Auction Revenue Rights ("ARR") settlements, virtual energy costs, revenues and related fees where the virtual energy transaction is a hedge in support of physical operations related to a generating resource or load, load/export charges, ancillary services including non-performance and distribution payments and charges and other miscellaneous SPP Integrated Market charges including uplift charges or credits;

Subaccount 555021: the allocation of the allowed costs in the 555000 account attributed to intercompany purchases for native load;

Subaccount 555030: the allocation of the allowed costs in the 555000 account attributed to purchases for off system sales;

Subaccount 555031: the allocation of the allowed costs in the 555000 account attributed to intercompany purchases for off system sales.

Staff has determined that KCPL's total purchased power expense for the prudence review period is $155,468,962, as shown previously in Table 2. More detail for the cost of Purchased Power is shown in Table 11.

*continued on next page*

**Table 11 - Confidential**

**

**

KCPL had five long term purchase power agreements in affect at the start of the review period: Cimarron 2, Slate Creek, Spearville 3, Waverly and The Central Nebraska Public Power and Irrigation District ("CNPPID"). Staff reviewed the terms and conditions of each long-term purchase power agreement and it appears that each party complied with the contract during the review period. Members of the Missouri Public Service Commission Staff review the prudency of long term purchased power contracts during a general rate case as part of its determination of what generation plants and purchased power contracts should be input into Staff's fuel model. If a determination of imprudence is made by Staff in the general rate case, Staff determines the appropriate resource (e.g. generation plant and/or purchased power contract) to be used in the fuel model. Therefore, the prudency of entering into long-term purchased power contracts is taken "as given" in this FAC prudence review issue.

**<u>Cimarron 2, Slate Creek, Osborn, Spearville 3, and Waverly</u>**

KCPL had long term purchased power contracts with five wind farms during the review period. A further description of these contracts can be found in Sections M, N, O, P, and Q.

**<u>CNPPID Hydro Power Purchase Agreement</u>**

KCPL has a long-term (10-year) Purchased Power Agreement ("PPA") with The Central Nebraska Public Power and Irrigation District ("CCNPID") ending December 31, 2023, for energy generated by several hydroelectric facilities (Jeffery Hydro 1, Jeffery Hydro 2, Johnson Hydro 11, Johnson Hydro 12, and Johnson Hydro 21) located in Nebraska. The contract is based on a fixed energy price of ** ____________ ** and ** _____ ** of capacity and is a "take-or pay" contract. CCNPID is not a The Division of Energy certified renewable energy resource. Costs of electricity under the CCNPID PPA are ** __________ ** for September 29, 2015 through December 31, 2016.

**<u>Non-firm Short Term Energy</u>**

KCPL purchases hourly energy in SPP's, SPP's Integrated Market ("IM"). Since implementing the IM, SPP has controlled the economic dispatch of KCPL's generation. During times that KCPL's load exceeds KCPL's generation, KCPL becomes a net purchaser in the SPP market. These SPP market purchases are from other electric suppliers to help meet KCPL's load during times of forced or planned plant outages and during times when the market price is below the marginal cost of providing that energy from KCPL's generating units. Costs for the EIS and IM purchases are included as "Non-Firm Short Term Energy" in Tables 2 and 5. Further discussion of KCPL's participation in these markets can be found in Section III.A. of this report.

**<u>Short Term Demand</u>**

There were no capacity charges for capacity purchases less than 12 months in duration during the review period.

**2. Summary of Cost Implication**

IF KCPL erred when it booked costs from purchased power contracts or if KCPL imprudently participated in the IM, ratepayer harm could result from an increase in costs collected through the FAC.

### 3. Conclusion

Staff found no indication of imprudence by KCPL related to its purchasing short term capacity, booking long-term purchased power contracts, or purchasing non-firm short term energy.

### 4. Documents Reviewed

a. Staff Data Request Nos. 0002, 0003, 0020, 0023, 0026;

b. PPA Contracts; and

c. Section III.A. of this report.

*Staff Expert/Witness: David C. Roos and Mathew J. Barnes*

## IV. INTEREST

### 1. Description

During each accumulation period, KCPL is required to calculate a monthly interest amount based on KCPL's short-term debt borrowing rate that is applied to the under-recovered or over-recovered fuel and purchased power costs. KCPL utilizes its Commercial Paper program as their primary source of short-term funding. KCPL issues commercial paper on virtually a daily basis through five independent dealers and interest rates are determined daily by the financial markets based upon market rates, KCPL's Commercial Paper rating, the amount of funds requested and the term. For the prudence review period KCPL's monthly interest rate averaged 0.14%. KCPL's interest amount applied to the under-recovered or over-recovered fuel and purchased power costs were $455,887. The interest amount is component "I" of KCPL's FAC.

### 2. Summary of Interest Implications

If KCPL imprudently calculated the monthly interest amounts or used short-term debt borrowing rates that did not fairly represent the actual cost of KCPL's short-term debt, ratepayers could be harmed by FAC charges that are too high.

### 3. Conclusion

Staff found no evidence that KCPL imprudently determined the monthly interest rates and interest amounts for its under-recovered or over-recovered fuel and purchased power costs.

**4. Documents Reviewed**

KCPL's monthly interest calculation work papers in support of the interest calculation amount on the under-recovered or over-recovered balance.

*Staff Expert/Witness: Matthew J. Barnes*

**Appendix 1 - Staff Credentials**

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

| | | |
|---|---|---|
| In the Matter of the First Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of Kansas City Power and Light Company | ) ) ) ) | File No. EO-2017-0231 |

**AFFIDAVIT OF MATHEW J. BARNES**

STATE OF MISSOURI )
) ss.
COUNTY OF COLE )

**COMES NOW MATHEW J. BARNES** and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *FIRST PRUDENCE REVIEW OF COSTS RELATED TO THE FUEL ADJUSTMENT CLAUSE FOR THE ELECTRIC OPERATIONS OF KANSAS CITY POWER & LIGHT COMPANY*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Matthew J. Barnes

**MATHEW J. BARNES**

**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 October, 2017.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin

Notary Public

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

| | | |
|---|---|---|
| In the Matter of the First Prudence Review of<br>Costs Subject to the Commission-Approved<br>Fuel Adjustment Clause of Kansas City<br>Power and Light Company | )<br>)<br>)<br>) | File No. EO-2017-0231 |

**AFFIDAVIT OF DANA E. EAVES**

STATE OF MISSOURI )
) ss.
COUNTY OF COLE )

**COMES NOW DANA E. EAVES** and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *FIRST PRUDENCE REVIEW OF COSTS RELATED TO THE FUEL ADJUSTMENT CLAUSE FOR THE ELECTRIC OPERATIONS OF KANSAS CITY POWER & LIGHT COMPANY*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Dana E. Eaves
**DANA E. EAVES**

**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 October, 2017.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin
Notary Public

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

| | | |
|---|---|---|
| In the Matter of the First Prudence Review of<br>Costs Subject to the Commission-Approved<br>Fuel Adjustment Clause of Kansas City<br>Power and Light Company | )<br>)<br>)<br>) | File No. EO-2017-0231 |

**AFFIDAVIT OF J LUEBBERT**

| | | |
|---|---|---|
| STATE OF MISSOURI<br><br>COUNTY OF COLE | )<br>)<br>) | 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 *FIRST PRUDENCE REVIEW OF COSTS RELATED TO THE FUEL ADJUSTMENT CLAUSE FOR THE ELECTRIC OPERATIONS OF KANSAS CITY POWER & LIGHT COMPANY*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

J Luebbert

**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 October, 2017.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin

Notary Public

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

| | | |
|---|---|---|
| In the Matter of the First Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of Kansas City Power and Light Company | ) ) ) ) | File No. EO-2017-0231 |

**AFFIDAVIT OF DAVID C. ROOS**

STATE OF MISSOURI )
) ss.
COUNTY OF COLE )

**COMES NOW DAVID C. ROOS** and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *FIRST PRUDENCE REVIEW OF COSTS RELATED TO THE FUEL ADJUSTMENT CLAUSE FOR THE ELECTRIC OPERATIONS OF KANSAS CITY POWER & LIGHT COMPANY*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

David C. Roos

**DAVID C. ROOS**

**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 October, 2017.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D Suzie Mankin

Notary Public

MATTHEW J. BARNES

EDUCATION AND RATE CASE PARTICIPATION

**Educational and Employment Background and Credentials**

I am a Utility Regulatory Auditor IV in the Water and Sewer Department, Commission Staff Division for the Missouri Public Service Commission. I was promoted to Utility Regulatory Auditor IV in the Energy Resources Department, Commission Staff Division for the Missouri Public Service Commission in June 2008. I accepted the position of Utility Regulatory Auditor I/II/III in June 2003. I transferred to the position of Utility Regulatory Auditor IV in the Water and Sewer Department in June 2016.

In December 2002, I earned a Bachelor of Science Degree in Business Administration with an Emphasis in Accounting from Columbia College. In May 2005, I earned a Masters in Business Administration with an Emphasis in Accounting from William Woods University.

**RATE CASE PARTICIPATION**

| Date Filed | Issue | Case Number | Exhibit | Case Name |
|---|---|---|---|---|
| 09/08/2004 | Merger with TXU Gas | GM20040607 | Staff Recommendation | Atmos Energy Corporation |
| 10/15/2004 | Rate of Return | TC20021076 | Supplemental Direct | BPS Telephone Company |
| 06/28/2005 | Finance Recommendation | EF20050387 | Staff Recommendation | Kansas City Power and Light Company |
| 06/28/2005 | Finance Recommendation | EF20050388 | Staff Recommendation | Kansas City Power and Light Company |
| 08/31/2005 | Finance Recommendation | EF20050498 | Staff Recommendation | Kansas City Power and Light Company |
| 11/15/2005 | Spin-off of landline operations | IO20060086 | Rebuttal | Sprint Nextel Corporation |

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EDUCATION AND RATE CASE PARTICIPATION

| Date Filed | Issue | Case Number | Exhibit | Case Name |
|---|---|---|---|---|
| 03/08/2006 | Spin-off of landline operations | TM20060272 | Rebuttal | Alltel Missouri, Inc. |
| 08/08/2006 | Rate of Return | ER20060314 | Direct | Kansas City Power & Light Company |
| 09/08/2006 | Rate of Return | ER20060314 | Rebuttal | Kansas City Power & Light Company |
| 09/13/2006 | Rate of Return | GR20060387 | Direct | Atmos Energy Corporation |
| 10/06/2006 | Rate of Return | ER20060314 | Surrebuttal | Kansas City Power & Light Company |
| 11/07/2006 | Rate of Return | ER20060314 | True-Up Direct | Kansas City Power & Light Company |
| 11/13/2006 | Rate of Return | GR20060387 | Rebuttal | Atmos Energy Corporation |
| 11/23/2006 | Rate of Return | GR20060387 | Surrebuttal | Atmos Energy Corporation |
| 12/01/2006 | Rate of Return | WR20060425 | Direct | Algonquin Water Resources of Missouri LLC |
| 12/28/2006 | Rate of Return | WR20060425 | Rebuttal | Algonquin Water Resources of Missouri LLC |
| 01/12/2007 | Rate of Return | WR20060425 | Surrebuttal | Algonquin Water Resources of Missouri LLC |
| 02/07/2007 | Finance Recommendation | GF20070220 | Staff Recommendation | Laclede Gas Company |

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| Date Filed | Issue | Case Number | Exhibit | Case Name |
|---|---|---|---|---|
| 05/04/2007 | Rate of Return | GR20070208 | Direct | Laclede Gas Company |
| 07/24/2007 | Rate of Return | ER20070291 | Direct | Kansas City Power and Light Company |
| 08/30/2007 | Rate of Return | ER20070291 | Rebuttal | Kansas City Power and Light Company |
| 09/20/2007 | Rate of Return | ER20070291 | Surrebuttal | Kansas City Power and Light Company |
| 11/02/2007 | Rate of Return | ER20070291 | True-up Direct | Kansas City Power and Light Company |
| 02/01/2008 | Finance Recommendation | EF20080214 | Staff Recommendation | Kansas City Power and Light Company |
| 02/22/2008 | Rate of Return | ER20080093 | Cost of Service Report | The Empire District Electric Company |
| 04/04/2008 | Rate of Return | ER20080093 | Rebuttal Testimony | The Empire District Electric Company |
| 04/25/2008 | Rate of Return | ER20080093 | Surrebuttal Testimony | The Empire District Electric Company |
| 08/18/2008 | Rate of Return | WR20080311 | Cost of Service Report | Missouri-American Water Company |
| 09/30/2008 | Rate of Return | WR20080311 | Rebuttal Testimony | Missouri-American Water Company |

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EDUCATION AND RATE CASE PARTICIPATION

| Date Filed | Issue | Case Number | Exhibit | Case Name |
|---|---|---|---|---|
| 10/16/2008 | Rate of Return | WR2008031 | Surrebuttal Testimony | Missouri-American Water Company |
| 02/26/2010 | Fuel Adjustment Clause | ER20100130 | Cost of Service Report | The Empire District Electric Company |
| 04/02/2010 | Fuel Adjustment Clause | ER20100130 | Rebuttal Testimony | The Empire District Electric Company |
| 04/23/2010 | Fuel Adjustment Clause | ER20100130 | Surrebuttal Testimony | The Empire District Electric Company |
| 02/23/11 | Fuel Adjustment Clause | ER20110004 | Cost of Service Report | The Empire District Electric Company |
| 04/22/11 | Fuel Adjustment Clause | ER20110004 | Rebuttal Testimony | The Empire District Electric Company |
| 04/28/11 | Fuel Adjustment Clause | ER20110004 | Surrebuttal Testimony | The Empire District Electric Company |
| 05/06/11 | Fuel Adjustment Clause | ER20110004 | True-up Direct Testimony | The Empire District Electric Company |
| 10/21/11 | Costs for the Phase-In Tariffs | ER20120024 | Direct Testimony | KCP&L Greater Missouri Operations Company |
| 11/17/11 | Rate of Return | WR20110337 | Cost of Service Report | Missouri-American Water Company |
| 08/09/12 | Fuel Adjustment Clause | ER20120175 | Staff Report | KCP&L Greater Missouri Operations Company |
| 09/12/12 | Fuel Adjustment Clause | ER20120175 | Rebuttal Testimony | KCP&L Greater Missouri Operations Company |
| 10/10/12 | Fuel Adjustment Clause | ER20120175 | Surrebuttal Testimony | KCP&L Greater Missouri Operations Company |

| Date Filed | Issue | Case Number | Exhibit | Case Name |
|---|---|---|---|---|
| 11/30/12 | Fuel Adjustment Clause | ER20120345 | Cost of Service Report | The Empire District Electric Company |
| 12/13/14 | Fuel Adjustment Clause | ER20120345 | Class Cost of Service Report | The Empire District Electric Company |
| 01/16/13 | Fuel Adjustment Clause | ER20120345 | Rebuttal Testimony | The Empire District Electric Company |
| 02/14/13 | Fuel Adjustment Clause | ER20120345 | Surrebuttal Testimony | The Empire District Electric Company |
| 12/05/14 | Fuel Adjustment Clause | ER20140258 | Cost of Service Report | Ameren Missouri |
| 12/19/14 | Fuel Adjustment Clause | ER20140258 | Class Cost of Service Report | Ameren Missouri |
| 01/16/15 | Fuel Adjustment Clause | ER20140258 | Rebuttal Testimony | Ameren Missouri |
| 02/06/15 | Fuel Adjustment Clause | ER20140258 | Surrebuttal Testimony | Ameren Missouri |
| 03/17/15 | Fuel Adjustment Clause | ER20140258 | True-up Direct Testimony | Ameren Missouri |
| 07/15/16 | Fuel Adjustment Clause | ER20160156 | Staff Report Revenue Requirement Cost of Service | KCP&L Greater Missouri Operations Company |
| 07/29/16 | Fuel Adjustment Clause | ER20160156 | Staff Report Rate Design | KCP&L Greater Missouri Operations Company |
| 10/13/16 | Rate of Return | SR20160202 | Rebuttal Testimony | Raccoon Creek Utility Operating Company |

## CASE PROCEEDING PARTICIPATION

### DANA E. EAVES

| PARTICIPATION | | TESTIMONY |
|---|---|---|
| **COMPANY** | **CASE NO.** | **ISSUES** |
| KCP&L GMO | EO-2017-0232 | Hedging |
| KCP&L | EO-2017-0231 | Hedging |
| Empire District Electric Company | EO-2017-0065 | Risk Management |
| Ameren Missouri | ER-2016-0179 | Fuel Adjustment Clause |
| KCP&L GMO | ER-2016-0156 | Fuel Adjustment Clause |
| KCP&L | EO-2016-0183 | MEEIA Prudence Review |
| KCPL GMO | EO-2015-0180 | MEEIA Prudence Review<br>Program costs and TD-NSB Share, Software system costs, Contractors, Interest Costs |
| Ameren Missouri | EO-2015-0029 | MEEIA Prudence Review<br>Program costs and TD-NSB Share, Software system costs, Contractors, Interest Costs |
| Empire District Electric Company | EO-2014-0057 | FAC Prudence Review<br>Risk Management |
| AmerenUE | EO-2013-0407 | FAC Prudence Review<br>Risk Management |
| KCP&L Greater Missouri Operations (GMO) | EO-2013-0325 | FAC Prudence Review<br>Purchased Power Agreements & Costs, Hourly weighted Transfer Pricing, Off-system sales revenue |
| Empire District Electric Company | EO-2013-0114 | FAC Prudence Review<br>Financial Hedges, Off-system sales revenue |
| Ameren Missouri | EO-2012-0074 | FAC Prudence Review<br>Direct/Rebuttal Requirements Contracts |

| PARTICIPATION | | TESTIMONY |
|---|---|---|
| COMPANY | CASE NO. | ISSUES |
| KCP&L Greater Missouri Operations (GMO) | EO-2011-0390 | FAC Prudence Review<br>Direct/Rebuttal Hedging Purchased Power |
| Empire District Electric Company | EO-2011-0285 | FAC Prudence Review<br>FAC Components |
| AmerenUE | EO-2010-0255 | FAC Prudence Review<br>Direct/Rebuttal Requirements Contracts |
| Empire District Electric Company | EO-2010-0084 | FAC Prudence Review<br>Fuel Cost, Off-System Sales, Interest Cost |
| Missouri American Water Company | WR-2008-0311 | Surrebuttal; Pension and Other Post-Retirement Employee Benefits Costs, Annual Incentive Plan Pay-out Based Upon Meeting Financial Goals and Customer Satisfaction Survey, Labor and Labor-Related Expenses, Rate Case Expenses, Insurance Other than Group, and Waste Disposal Expense |
| Empire District Electric Company | ER-2008-0093 | Fuel and Purchased Power, Fuel Inventories, FAS 87 (pension), FAS 106 (OPEBS), Expenses and Regulatory Assets, Off System Sales, Transmission Revenue, SO2 Allowances, Maintenance Expense |
| Laclede Gas Company | GR-2007-0208 | Accounting Schedules Reconciliation |
| Aquila, Inc d/b/a Aquila Networks-MPS & L&P | ER-2007-0004 | Payroll Expense, Payroll Taxes and Employee Benefits |
| Empire District Electric Company | ER-2006-0315 | Direct - Jurisdictional Allocations Factors, Revenue, Uncollectible Expense, Pensions, Prepaid Pension Asset, Other Post-Employment Benefits<br>Rebuttal - Updated: Pension Expense, Updated Prepaid Pension Asset, OPEB's Tracker, Minimum Pension Liability |

| PARTICIPATION | | TESTIMONY |
|---|---|---|
| COMPANY | CASE NO. | ISSUES |
| Missouri Gas Energy (Gas) | GR-2004-0209 | Direct – Cash Working Capital, Payroll, Payroll Taxes, Incentive Compensation, Bonuses, Materials and Supplies, Customer Deposits and Interest, Customer Advances and Employee Benefits<br>Surrebuttal – Incentive Compensation |
| Aquila, Inc. d/b/a Aquila Networks-MPS & L&P (Natural Gas) | GR-2004-0072 | Direct - Payroll Expense, Employee Benefits, Payroll Taxes<br>Rebuttal – Payroll Expense, Incentive Compensation, Employer Health, Dental and Vision Expense |
| Aquila, Inc. d/b/a Aquila Networks-MPS (Electric) | ER-2004-0034 | Direct - Payroll Expense, Employee Benefits, Payroll Taxes<br>Rebuttal – Payroll Expense, Incentive Compensation, Employer Health, Dental and Vision Expense |
| Aquila, Inc. d/b/a Aquila Networks-L&P (Electric & Steam) | HR-2004-0024 | Direct - Payroll Expense, Employee Benefits, Payroll Taxes |
| Osage Water Company | ST-2003-0562<br>WT-2003-0563 | Direct - Plant Adjustment, Operating & Maintenance Expense Adjustments |
| Empire District Electric Company | ER-2002-0424 | Direct - Cash Working Capital, Property Tax, Tree Trimming, Injuries and Damages, Outside Services, Misc. Adjustments |
| Citizens Electric Corporation | ER-2002-0297 | Direct - Depreciation Expense, Accumulated Depreciation, Customer Deposits, Material & Supplies, Prepayments, Property Tax, Plant in Service, Customer Advances in Aid of Construction |
| UtiliCorp United Inc, d/b/a Missouri Public Service | ER-2001-672 | Direct - Advertising, Customer Advances, Customer Deposits, Customer Deposit Interest Expense, Dues and Donations, Material and Supply, Prepayments, PSC Assessment, Rate Case Expense |

# DANA EAVES

## CAREER EXPERIENCE

### Missouri Public Service Commission, Jefferson City, Missouri

**Utility Regulatory Auditor V** May 17, 2017 – Present
**Utility Regulatory Auditor IV** January 1, 2013 – May 17, 2017
**Utility Regulatory Auditor III** April 23, 2003– December 31, 2012
**Utility Regulatory Auditor II** April, 2002 – April, 2003
**Utility Regulatory Auditor I** April, 2001 – April, 2002

Perform rate audits and prepare miscellaneous filings as ordered by the Commission. Review all exhibits and testimony on assigned issues from the most recent previous case and the current case. Develop accounting adjustments and issue positions which are supported by workpapers and written testimony. Prepare Staff Recommendation Memorandum for filings that do not require prepared testimony. As a Utility Regulatory Auditor V, in the Energy Resource Analysis Department, I am the lead Auditor for Fuel Adjustment Clause Prudence Reviews and Missouri Energy Efficiency Investment Act Prudence Reviews and perform other tasks as assigned by management. I have testified under cross-examination as an expert witness for litigated rate cases.

### Midwest Block and Brick, Jefferson City, Missouri

**Accountant** December 2000 – March 2001
**CIS/Accounting Assistant** July 2000 – December 2000

### Practice Management Plus, Inc., Jefferson City, Missouri

**Vice President Operations** October 1998 – May 2000

### Capital City Medical Associates (CCMA), Jefferson City, Missouri

**Director of Finance** March, 1995-October, 1998

## ADDITIONAL EXPERIENCE

| | |
|---|---|
| Wright Camera Shop/Sales | 1987-1995 |
| Movies To Go, Inc/Store Manager | 1984-1987 |
| Butler Shoe Corp./Store Manager | 1982-1984 |
| Southeastern Illinois College/Student | 1979-1982 |
| Kassabaum's Bicycle Shop/Store Manager | 1977-1979 |

## EDUCATION

**Bachelor of Science, Business Administration; Emphasis Accounting** (1995)

COLUMBIA COLLEGE, JEFFERSON CITY, MO

# Credentials and Background of

# J Luebbert

I have a Bachelor of Science degree in Biological Engineering from the University of Missouri. My work experience includes three years of regulatory work as an Environmental Engineer II for the Air Pollution Control Program of the Missouri Department of Natural Resources.

I am currently employed as a Utility Engineering Specialist III in the Engineering Resources Department of the Commission Staff Division of the Missouri Public Service Commission. I have been employed at the Missouri Public Service Commission since March 2016 and am responsible for preparing staff recommendations regarding electric utility resource planning, demand-side management programs, and fuel adjustment clauses.

| **Case Number** | **Company** | **Issues** |
|---|---|---|
| EO-2015-0055 | Ameren Missouri | Evaluation, Measurement, and Verification |
| EO-2016-0228 | Ameren Missouri | Utilization of Generation Capacity, Plant Outages, and Demand Response Program |
| ER-2016-0179 | Ameren Missouri | Heat Rate Testing |
| ER-2016-0285 | Kansas City Power & Light Company | Heat Rate Testing |
| EO-2017-0065 | Empire District Electric | Utilization of Generation Capacity and Station Outages |
| EO-2017-0232 | KCP&L Greater Missouri Operations Company | Utilization of Generation Capacity, Heat Rates, and Plant Outages |

# David C. Roos

**Present Position:** I am a Utility Engineering Specialist III in the Water and Sewer Department, Commission Staff Division for the Missouri Public Service Commission, and formerly a Regulatory Economist III in the Energy Resources Department, Commission Staff Division for the Missouri Public Service Commission. I transferred to the position of Utility Engineering Specialist III in the Water and Sewer Department in August 2017.

**Educational Background and Work Experience:**

In May 1983, I graduated from the University of Notre Dame, Notre Dame, Indiana, with a Bachelor of Science Degree in Chemical Engineering. I also graduated from the University of Missouri in December 2005, with a Master of Arts in Economics. I have been employed at the Missouri Public Service Commission as a Regulatory Economist III since March 2006. I began my employment with the Commission in the Economics Analysis section where my responsibilities included class cost of service and rate design. In 2008, I moved to the Energy Resource Analysis section where my testimony and responsibility topics include energy efficiency, resource analysis, and fuel adjustment clauses. Prior to joining the Public Service Commission I taught introductory economics and conducted research as a graduate teaching assistant and graduate research assistant at the University of Missouri. Prior to the University of Missouri, I was employed by several private firms where I provided consulting, design, and construction oversight of environmental projects for private and public sector clients.

**Previous Cases**

| Company | Case No. |
|---|---|
| Empire District Electric Company | ER-2006-0315 |
| AmerenUE | ER-2007-0002 |
| Aquila Inc. | ER-2007-0004 |
| Kansas City Power and Light Company | ER-2007-0291 |
| AmerenUE | EO-2007-0409 |
| Empire District Electric Company | ER-2008-0093 |
| Kansas City Power and Light Company | ER-2008-0034 |
| Greater Missouri Operations | HR-2008-0340 |
| Greater Missouri Operations | ER-2009-0091 |
| Greater Missouri Operations | EO-2009-0115 |
| Greater Missouri Operations | EE-2009-0237 |
| Greater Missouri Operations | EO-2009-0431 |
| Empire District Electric Company | ER-2010-0105 |
| Greater Missouri Operations | EO-2010-0002 |
| AmerenUE | ER-2010-0036 |
| AmerenUE | ER-2010-0044 |
| Empire District Electric Company | EO-2010-0084 |
| Empire District Electric Company | ER-2010-0105 |
| AmerenUE | ER-2010-0165 |
| Greater Missouri Operations | EO-2010-0167 |
| AmerenUE | EO-2010-0255 |
| Greater Missouri Operations (Aquila) | EO-2008-0216 |
| Ameren Missouri | ER-2011-0028 |
| Empire District Electric Company | EO-2011-0066 |
| Empire District Electric Company | EO-2011-0285 |
| Ameren Missouri | EO-2012-0074 |
| Greater Missouri Operations | EO-2012-0009 |
| Ameren Missouri | EO-2012-0142 |
| Ameren Missouri | ER-2012-0166 |
| Greater Missouri Operations | EO-2013-0325 |
| Ameren Missouri | EO-2013-0407 |
| Empire District Electric Company | EO-2014-0057 |
| Greater Missouri Operations | EO-2014-0256 |
| Empire District Electric Company | ER-2014-0351 |
| Greater Missouri Operations | EO-2015-0252 |
| Kansas City Power and Light Company | EO-2015-0254 |
| Empire District Electric Company | ER-2015-0214 |
| Greater Missouri Operations | EO-2016-0053 |
| Empire District Electric Company | ER-2016-0023 |
| KCP&L Greater Missouri Operations Company | ER-2016-0156 |
| KCPL | ER-2016-0285 |
| Empire District Electric Company | EO-2017-0065 |
| Greater Missouri Operations | EO-2017-0231 |