MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

SECOND PRUDENCE REVIEW OF COSTS

RELATED TO THE FUEL ADJUSTMENT CLAUSE

FOR THE ELECTRIC OPERATIONS

OF

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. EO-2019-0068

January 1, 2017 through June 30, 2018

Jefferson City, Missouri
February 28, 2019

** Denotes Confidential Information **

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SECOND PRUDENCE REVIEW OF COSTS
RELATED TO THE FUEL ADJUSTMENT CLAUSE
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OF
KANSAS CITY POWER & LIGHT COMPANY

CASE NO. EO-2019-0068

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 cases: Case Nos. ER-2016-0285 and ER-2018-0145.

Commission Rule 4 CSR 240-20.090(11)[1] and Missouri Revised Statute Section 386.266.5(4) 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 fourth, fifth and sixth accumulation periods of KCPL's FAC ("prudence review period"). The fourth accumulation period started January 1, 2017 and ended June 30, 2017. The fifth accumulation period started July 1, 2017 and ended December 31, 2017. The sixth accumulation period started January 1, 2018 and ended June 30, 2018. Thus, the 18-month prudence review period is from January 1, 2017 through June 30, 2018 ("Review Period"). This is Staff's second 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

[1] Effective January 30, 2019.

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 evidence of imprudence by KCPL when KCPL failed to take any action that would have allowed it to generate revenue from the sale of 722,628 renewable energy credits ("RECs") that were not needed to satisfy its RES compliance and simply allowed them to expire during the Review Period. Staff recommends the Commission order an Ordered Adjustment ("OA") in the amount of $350,351.

Staff Expert/Witness: Dana E. Eaves

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 January 1, 2017 through June 30, 2018:

Table 1

KCPL's Commission-approved FAC Tariff Sheets

January 1, 2017 through June 30, 2018

January 1, 2017 through June 7, 2017	June 8, 2017 through June 30, 2018
Fourth Revised Sheet No. 50	Second revised Sheet No. 50.11
Third Revised Sheet No. 50.1	Second revised Sheet No. 50.12
Second Revised Sheet No. 50.2	Second revised Sheet No. 50.13
Second Revised Sheet No. 50.3	Second revised Sheet No. 50.14
Second Revised Sheet No. 50.4	Second revised Sheet No. 50.15
Second Revised Sheet No. 50.5	Second revised Sheet No. 50.16
Second Revised Sheet No. 50.6	Second revised Sheet No. 50.17
Second Revised Sheet No. 50.7	Second revised Sheet No. 50.18
Second Revised Sheet No. 50.8	Second revised Sheet No. 50.19
Second Revised Sheet No. 50.9	

For each accumulation period ("AP"),[2] 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[3] actual net energy costs ("ANEC")[4] less net base energy cost ("B")[5] which is identified as (ANEC – B)*J in KCPL's FAC.[6] 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 ("RP")[7] when 95% of the (ANEC – B)*J amount (including the monthly application of interest)[8] is recovered from or returned to ratepayers through an increase or decrease in the FAC Fuel Adjustment Rates ("FAR") during the twelve-month RP. 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[9] in a future filing to adjust the FAR.

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2 Accumulation periods are: June through November and December through May.

3 Missouri jurisdictional factor J is defined on KCPL Second Revised Sheet No. 50.18 as Missouri Retail Energy Ratio = (MO Retail kWh sales + MO Losses) / (MO Retail kWh Sales + MO Losses + KS Retail kWh Sales + KS Losses + Sales for Resale, Municipals kWh Sales [including border customers] + Sales for Resale, Municipals Losses), where MO Losses = 6.32%; KS Losses =7.52%; Sales for Resale, Municipals Losses = 6.84%.

4 "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.

5 Net base energy costs (B) is defined on KCPL Second Revised Sheet No. 50.18 as net base energy costs ordered by the Commission in the last general rate case consistent with the costs and revenues included in the calculation of the FPA. Net base energy costs will be calculated as shown below S_{AP} x Base Factor ("BF").

6 For the fourth, fifth and sixth accumulation periods, the (ANEC - B)*J amounts are included on line 5 of KCPL 2nd Revised Sheet No. 50.20, 3rd Revised Sheet No. 50.20, 4th Revised Sheet No. 50.20, respectively.

7 Recovery periods are: October through September and April through March.

8 See Section IV. Interest, of this Prudence Review Report.

9 See PRUDENCE REVIEW on KCPL's Second Revised Sheet No. 50.19.

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.
>
> 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.[10]

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.[11] This is the prudence standard Staff has followed in this review. Staff reviewed for imprudence the areas identified and discussed below for KCPL's fourth, fifth, and sixth six-month accumulation periods.

Staff Expert/Witness: Dana E. Eaves

III. FUEL COSTS, PURCHASED POWER COSTS, TRANSMISSION 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 January 1, 2017, through June 30, 2018:

[10] 954 S.W.2d 520, 528-29 (Mo. App. W.D., 1997) (citations omitted).

[11] *Id*. at 529-30.

Table 2 - Confidential

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Staff Experts/Witnesses: Dana E. Eaves, Brooke Mastrogiannis, Lisa Wildhaber, Cynthia M. Tandy, Kory J. Boustead

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.

Table 3[12] - Confidential

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[12] KCPL response to Data Request No. 0013.

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Table 4 – Confidential

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Table 5 – Confidential

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2. Summary of Cost Implications

During the period from January 1, 2017 through June 30, 2018, KCPL utilized two separate demand response programs. The MPOWER Rider tariff sheets were frozen on April 1, 2016[13]. Once the MPOWER Rider was frozen, no new customers could apply and be accepted into the MPOWER Rider. It was replaced with a similar demand response program, Demand Response Incentive ("DRI"), for KCPL's MEEIA Cycle 2.[14] 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. For DRI, the curtailment target and anticipated load reduction is 15 MW for MEEIA Cycle 2.

In SPP's Integrated Marketplace ("IM"), the vast majority of generation dispatch decisions are made by SPP via established market requirements and processes. SPP market rules currently must offer requirements both for the Day Ahead Market ("DA") and the Real Time Balancing Market ("RT"). With respect to the DA, there is a Day Ahead Must Offer

[13] P.S.C. MO. No. 7, Eighth Revised Sheet No. 21 Cancelled December 6, 2018.

[14] KCPL's Missouri Energy Efficiency Investment Act Application, File No. ER-2015-0240.

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 DA, even if they have already met their Must Offer requirement. With respect to the RT, 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 DA and RT. 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.[15]

3. Conclusion

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

4. Documents Reviewed

a. KCPL's responses to Staff Data Request Nos. 0001, 0002, 0010, 0011, 0012, 0013, 0015, 0016, 0017, 0018, 0020, 0021, 0022, 0041, 0043, 0044, 0047.1, 0052, 0052.1, 0053, 0053.1, 0059, and 0060.

Staff Experts/Witnesses: Dana E. Eaves and Lisa Wildhaber

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

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 operating 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 operating 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.

** ____________[16] ____

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________ **[17]

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.

[16] The Montrose generator units were retired in 2018.

[17] Response to Data Request No. 0058.

4. Documents Reviewed

a. KCPL's responses to Staff Data Request Nos. 0002, 0019, and 0058; and

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

Staff Experts/Witnesses: Brooke Mastrogiannis and Jordan Hull

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. Outages are planned and scheduled over one year in advance. The exact start date depends on freezing temperatures and natural gas availability. 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, typically June through August and January through February.

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 unscheduled 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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____________________ **[18]

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.

3. Conclusion

Staff did not find any evidence of imprudent planned outages by KCPL during the Review Period.

4. Documents Reviewed

a. KCPL responses to Staff Data Request Nos. 0001, 0004, 0005, 0006; and 0052.

Staff Experts/Witnesses: Brooke Mastrogiannis and Jordan Hull

D. Natural Gas Costs

1. Description

For the Review Period, $** ________ ** or ** __ ** % 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. The cost of natural gas includes various miscellaneous charges such as firm transportation service charges and other fuel handling expenses. During the Review Period, KCPL's natural gas price averaged $** ____ ** per MMBtu, based on 2,401,711 MMBtu of actual natural gas burned and costs of $** ________ **. Staff reviewed the contract terms and a sampling of invoices for gas purchased. KCPL receives natural gas services from 37 gas supply companies and 5 natural gas transportation companies. The companies are identified in Table 6:

[18] Response to Data Request No. 0052.

Table 6 - Confidential

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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 intermediate and peaking generating units that burn natural gas:

<u>Table 8 – Confidential</u>

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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. 0001, 0002, 0013, 0025, 0032, 0047, 0047.1, 0061; and

b. KCPL's General Ledger, AP4, AP5 and AP6 FAR Filings, and monthly reports.

Staff Expert/Witness: Lisa Wildhaber

E. Coal and Rail Transportation Costs

1. Description

For the Review Period, $** ________ ** or ** ___ ** % 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 the contract terms of 6 short and long-term coal purchase contracts, as well as a sampling of invoices for coal purchased and delivered. 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 index-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 contract terms in place for the delivery of coal to each of its generating units;

b. KCPL's responses to Staff Data Request Nos. 0001, 0002, 0013, 0022, 0032, 0033, 0047, 0047.1, 0061; and

c. KCPL's General Ledger, AP4, AP5 and AP6 FAR Filings, and monthly reports.

Staff Expert/Witness: Lisa Wildhaber

F. Fuel Oil Costs

1. Description

For the Review Period, $** ________ ** or ** __ ** % 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 the contract terms of KCPL's 2 oil contracts that were in place during the Review Period, as well as a sampling of invoices for fuel oil purchased. 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:

<u>Table 10 - Confidential</u>

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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 responses to Staff Data Request Nos. 0001, 0002, 0013, 0027, 0032, 0047, 0047.1, 0061; and

b. KCPL's General Ledger, AP4, AP5 and AP6 FAR Filings and monthly reports.

Staff Expert/Witness: Lisa Wildhaber

G. Transmission Costs

1. Description

For the Review Period, $** ________ ** or ** ** % of KCPL's total fuel cost, purchased power costs, transmission costs and net emission costs was associated with transmission costs. There were two tariff sheets that were in effect during this Review Period. 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.

KCPL's FAC Second Revised Sheet No. 50.14 (Applicable to Service Provided June 8, 2017 through December 6, 2018), 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 20.91% 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.

For calculating TC, KCPL implemented a process whereby total transmission expenses were tabulated and then costs not allowed in the FAC were removed. Staff reviewed the transmission costs over the Review Period to verify only 7.3% of the SPP transmission service costs are included (from the beginning of the Review Period through June 7, 2017) and only 20.91% of the SPP transmission service costs are included (from June 8, 2017 through the end of the Review Period). KCPL's transmission costs during the Review Period are $** ________ **.

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 Nos. 0002, 0047, 0047.1, and 0051; and

c. AP4, AP5 and AP6 FAR and other supporting work papers.

Staff Expert/Witness: Brooke Mastrogiannis

H. Nuclear Fuel

1. Description

For the 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 responses to Staff Data Request Nos. 0001, 0002, 0013, 0047, 0047.1; and

b. KCPL's General Ledger, AP4, AP5 and AP6 FAR filings, and monthly reports.

Staff Expert/Witness: Lisa Wildhaber

I. 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 largely replaced the original CSAPR ozone season NO_X program 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 January 1, 2017 through June 30, 2018. The requirements for the CSAPR Update, effective May 1, 2017, were effective in this Review Period. The CSAPR Update was effective for Missouri, which reduced the summertime NOx emissions.

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.

For the Review Period ending June 30, 2018, KCPL's total net emission allowance cost was $** ________ **.

2. Summary of Cost Implications

If KCPL imprudently used, purchased or banked its NO_X and 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 NO_X and SO_2 allowances.

4. Documents Reviewed

a. Company responses to Staff's Data Request Nos. 0035, 0037, 0038 and 0041; and

b. Staff Reports: GL for 2nd Prudency Review and KCPL Monthly Reports Combined.

Staff Expert/Witness: Cynthia M. Tandy

J. Off-System Sales Revenue

1. Description

Off-system sales revenues ("OSSR") is a component of KCPL's FAC. There were two tariff sheets that were in effect during this Review Period. Second Revised Sheet No. 50.3 (Applicable to Service Provided September 29, 2015 through June 7, 2017), effective July 27, 2017, and Second Revised Sheet No. 50.14 (Applicable to Service Provided June 8, 2017 through December 6, 2018), 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 Review Period, and KCPL's off-system sales revenue amount is $** ________ **.

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.[19] If KCPL did not make available its generating units in the SPP for off-system sales to be made, ratepayers could be harmed by such imprudence as a result of an increase in KCPL's FAC charges.[20]

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 Nos. 0002, 0047, 0047.1, and 0051;

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

c. KCPL's monthly reports and AP4, AP5 and AP6 FAR filing worksheets.

Staff Expert/Witness: Brooke Mastrogiannis

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

[20] 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.

K. Renewable Energy Credit Revenues

1. Description

The Missouri Renewable Energy Standard ("RES")[21] 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.[22] Commission rule 4 CSR 240-20.100 Electric Utility Renewable Energy Standard Requirements , 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).[23] Renewable energy resources produce electrical energy and include wind sources, solar 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.[24] The cost of a REC (as a RES compliance cost) cannot be recovered through the FAC.[25] Revenues from the sale of RECs are recovered through the FAC as an off-set to fuel costs.

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[21] Section 393.1020 RSMo. Supp. 2013 and Section 393.1030.1(1), RSMo. Supp. 2013.

[22] 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.

[23] 4 CSR 240-20.100(5)(B).

[24] 4 CSR 240-20.100(6)(B)(5)(J).

[25] 4 CSR 240-20.100(6)(A)(16).

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.[26] 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 2016 and 2017 RES compliance.

In Staff Data Request No. 0044, Staff requested "the dollar amount of Renewable Energy Credit revenues" for the period January 1, 2017 through June 30, 2018, KCP&L responded, "KCPL did not sell any RECs during the review period of January 1, 2017 through June 30, 2018…." Staff reviewed KCPL's responses and determined that 722,628 REC's were allowed to expire during the Review Period without any evidence that KCPL attempted to sell any of the 722,628 RECs prior to their expiring.

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 when 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 find evidence of imprudence by KCPL's management of its RECs during the Review Period. Staff could not find that KCPL took any action that would have allowed it to generate revenue from 722,628 RECs that were not needed to satisfy its RES compliance and were simply allowed to expire during the Review Period. Staff recommends the Commission issue an Ordered Adjustment ("OA") in the amount of $350,351 which is equal to 722,628 RECs times Staff's estimated average sales price of $0.48483 per REC during the 18-month Review Period.

[26] *KCPL 2016 Annual Renewable Energy Standard Compliance Report* and *KCPL 2017 Annual Renewable Energy Standard Compliance Report [Corrected]*.

4. Documents Reviewed

a. Staff Data Request Nos. 0044, 0044.1 and 0044.2;

b. Staff Data Requests, in Case ER-2018-0145, Nos. 0400 and 0400.1;

c. KCPL 2016 and 2017 Annual Renewable Energy Standard Compliance Reports;

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

e. Staff Work Sheet KCPL RECs_1-8-19 Expired Download and Sorted.

Staff Experts/Witnesses: Dana E. Eaves and Kory J. Boustead

L. Cimarron 2 Wind Farm Purchased Power Agreement

1. Description

KCPL has a long-term (20-year) 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 ** ___ ** MW of capacity that KCPL began receiving on June 1, 2012 at a fixed price of $** ____ ** per MWh. 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. 0044 KCPL stated, "KCPL did not sell any RECs during the Review Period of January 1, 2017 through June 30, 2018". Total costs of electricity under the Cimarron 2 PPA was $** ________ ** with revenue associated with sales of $** ________ ** which resulted in a net loss of $** ________ ** for the Review Period.

2. Summary of Cost Implications

If KCPL imprudently included either the energy and/or REC costs in its FAC calculations, ratepayer harm could result from an increase in FAC charges. 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 that the failure of KCPL to sell a number of RECs and allowing them to expire, which created no revenue, was imprudent and is addressed in Section K of this report.

3. Conclusions

Staff has identified that the Cimarron Wind Farm PPA is creating a significant amount of additional costs compared to the revenue received. Staff notes this is a long-term PPA and the performance of this contract should be viewed on a long-term basis and not just from the results during this Review Period. Staff is proposing an adjustment as addressed in Section K of this report related to KCPL's failure to sell RECs created by this wind facility. Staff recommends the Commission issue an Ordered Adjustment as previously determined in Section K of this report. Staff is not proposing an adjustment related to the financial performance of the energy portion of this contract.

4. Documents Reviewed

a. Staff Data Request Nos. 0001, 0002, 0021, 0045, 0047, 0047.1, 0059 and 0060;

b. KCPL 2017 Annual Renewable Energy Standard Compliance Plan;

c. KCPL 2018 Annual Renewable Energy Standard Compliance Plan;

d. Staff Report in Case No. EO-2017-0271; and

e. Staff Report in Case No. EO-2018-0290.

Staff Expert/Witness: Lisa Wildhaber

M. Slate Creek Wind Project Purchased Power Agreement

1. Description

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 (i.e., KCPL has to receive and pay for the energy whether it needs the energy or not), and is based on a fixed energy price of $** ____ ** per MWh and a capacity of ** ___ ** MW. In its response to Staff Data Request No. 0044 KCPL stated, "KCPL did not sell any RECs during the review period January 1, 2017 through June 30, 2018". Costs of electricity under the Slate Creek Wind Project PPA was $** _______ ** with revenue associated with sales of $** _______ ** which resulted in a net loss of $** _______ ** for the Review Period.

2. Summary of Cost Implications

If KCPL imprudently included either the energy and/or REC costs in its FAC calculations, ratepayer harm could result from an increase in FAC charges. 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 that the failure of KCPL to sell a number of RECs and allowing them to expire, which created no revenue, was imprudent and is addressed in Section K of this report.

3. Conclusions

Staff has identified that the Slate Creek Wind Project PPA is creating a significant amount of additional costs compared to the revenue received. Staff notes this is a long-term PPA and the performance of this contract should be viewed on a long-term basis and not just from the results during this Review Period. Staff is proposing an adjustment as addressed in Section K of this report related to KCPL's failure to sell RECs created by this wind facility. Staff recommends the Commission issue an Ordered Adjustment as previously determined in Section K of this report. Staff is not proposing an adjustment related to the financial performance of the energy portion of this contract.

4. Documents Reviewed

a. Staff Data Request Nos. 0001, 0002, 0021, 0045, 0047, 0047.1, 0059 and 0060;

b. KCPL 2017 Annual Renewable Energy Standard Compliance Plan;

c. KCPL 2018 Annual Renewable Energy Standard Compliance Plan;

d. Staff Report in Case No. EO-2017-00271; and

e. Staff Report in Case No. EO-2018-00290.

Staff Expert/Witness: Lisa Wildhaber

N. Osborn Wind Energy Purchased Power Agreement

1. Description

KCPL has a long-term (20-year) 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 $** ____ ** per MWh and ** ___ ** MW of capacity that KCPL began receiving in December 2016. In its response to Staff Data Request No. 0044 KCPL stated, “KCPL did not sell any RECs during the review period of January 1, 2017 through June 30, 2018”. 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 $** ________ ** with revenue associated with sales of $** ________ ** which resulted in a net loss of $** ________ ** for the Review Period.

2. Summary of Cost Implications

If KCPL imprudently included either the energy and/or REC costs in its FAC calculations, ratepayer harm could result from an increase in FAC charges. 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 that the failure of KCPL to sell a number of RECs and allowing them to expire, which created no revenue, was imprudent and is addressed in Section K of this report.

3. Conclusions

Staff has identified that the Osborn Wind Energy PPA is creating a significant amount of additional costs compared to the revenue received. Staff notes this is a long-term PPA and the performance of this contract should be viewed on a long-term basis and not just from the results during this Review Period. Staff is proposing an adjustment as addressed in Section K of this report related to KCPL’s failure to sell RECs created by this wind facility. Staff recommends the Commission issue an Ordered Adjustment as previously determined in Section K of this report. Staff is not proposing an adjustment related to the financial performance of the energy portion of this contract.

4. Documents Reviewed

a. Staff Data Request Nos. 0001, 0002, 0021, 0045, 0047, 0047.1, 0059 and 0060;

b. KCPL 2017 Annual Renewable Energy Standard Compliance Plan;

c. KCPL 2018 Annual Renewable Energy Standard Compliance Plan;

d. Staff Report in Case No. EO-2017-0271; and

e. Staff Report in Case No. EO-2018-0290.

Staff Expert/Witness: Lisa Wildhaber

O. Spearville 3 Wind Energy Facility Purchased Power Agreement

1. Description

KCPL has a long-term (20-year) 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 $** ____ ** per MWh and ** ___ ** MW of capacity that KCPL began receiving in October, 2012. 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. 0044 KCPL stated, "KCPL did not sell any RECs during the review period of January 1, 2017 through June 30, 2018". Costs of electricity under the Spearville 3 PPA was $** ________ ** with revenue associated with sales of $** ________ ** which resulted in a net loss of $** ________ ** for the Review Period.

2. Summary of Cost Implications

If KCPL imprudently included either the energy and/or REC costs in its FAC calculations, ratepayer harm could result from an increase in FAC charges. 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 that the failure of KCPL to sell a number of RECs and allowing them to expire, which created no revenue, was imprudent and is addressed in Section K of this report.

3. Conclusions

Staff has identified that the Spearville 3 Wind Energy PPA is creating a significant amount of additional costs compared to the revenue received. Staff notes this is a long-term PPA and the performance of this contract should be viewed on a long-term basis and not just from the results during this Review Period. Staff is proposing an adjustment as addressed in Section K of this report related to KCPL's failure to sell RECs created by this wind facility. Staff recommends the Commission issue an Ordered Adjustment as previously determined in Section K of this report. Staff is not proposing an adjustment related to the financial performance of the energy portion of this contract.

4. Documents Reviewed

a. Staff Data Request Nos. 0001, 0002, 0021, 0045, 0047, 0047.1, 0059 and 0060;

b. KCPL 2017 Annual Renewable Energy Standard Compliance Plan;

c. KCPL 2018 Annual Renewable Energy Standard Compliance Plan;

d. Staff Report in Case No. EO-2017-0271; and

e. Staff Report in Case No. EO-2018-0290.

Staff Expert/Witness: Lisa Wildhaber

P. Waverly Wind Farm Purchased Power Agreement

1. Description

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 (i.e., KCPL has to receive and pay for the energy whether it needs the energy or not), and is based on a fixed energy price of $** ____ ** per MWh and a capacity of ** ___ ** MW. In its response to Staff Data Request No. 0044 KCPL stated, "KCPL did not sell any RECs during the review period of January 1, 2017 through June 30, 2018". Costs of electricity under the Waverly Wind Farm PPA was $** ________ ** with revenue associated with sales of $** ________ ** which resulted in a net loss of $** ________ ** for the Review Period.

2. Summary of Cost Implications

If KCPL imprudently included either the energy and/or REC costs in its FAC calculations, ratepayer harm could result from an increase in FAC charges. 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 that the failure of KCPL to sell a number of RECs and allowing them to expire, which created no revenue, was imprudent and is addressed in Section K of this report.

3. Conclusions

Staff has identified that the Waverly Wind Farm PPA is creating a significant amount of additional costs compared to the revenue received. Staff notes this is a long-term PPA and the performance of this contract should be viewed on a long-term basis and not just from the results during this Review Period. Staff is proposing an adjustment as addressed in Section K of this report related to KCPL's failure to sell RECs created by this wind facility. Staff recommends the Commission issue an Ordered Adjustment as previously determined in Section K of this report. Staff is not proposing an adjustment related to the financial performance of the energy portion of this contract.

4. Documents Reviewed

a. Staff Data Request Nos. 0001, 0002, 0021, 0045, 0047, 0047.1, 0059 and 0060;

b. KCPL 2017 Annual Renewable Energy Standard Compliance Plan;

c. KCPL 2018 Annual Renewable Energy Standard Compliance Plan;

d. Staff Report in Case No. EO-2017-0271; and

e. Staff Report in Case No. EO-2018-0290.

Staff Expert/Witness: Lisa Wildhaber

Q. Rock Creek Wind Project Purchased Power Agreement

1. Description

KCPL has a long-term (20-year) PPA with Rock Creek Wind Project, LLC for energy and RECs generated by the Rock Creek Wind Farm located in Missouri. The contract is also a "take-or pay" contract for renewable wind energy and RECs (i.e., KCPL has to receive and pay for the energy whether it needs the energy or not), and is based on a fixed energy price of $** ____ ** per MWh and a capacity of ** ___ ** MW, beginning August 2017. In its response to Staff Data Request No. 0044 KCPL stated, "KCPL did not sell any RECs during the review period of January 1, 2017 through June 30, 2018". Costs of electricity under the Rock Creek Wind Project was $** _______ ** with revenue associated with sales of $** _______ ** which resulted in a net loss of $** _______ ** for the Review Period.

2. Summary of Cost Implications

If KCPL imprudently included either the energy and/or REC costs in its FAC calculations, ratepayer harm could result from an increase in FAC charges. 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 that the failure of

KCPL to sell a number of RECs and allowing them to expire, which created no revenue, was imprudent and is addressed in Section K of this report.

3. Conclusions

Staff has identified that the Rock Creek Wind Project PPA is creating a significant amount of additional costs compared to the revenue received. Staff notes this is a long-term PPA and the performance of this contract should be viewed on a long-term basis and not just from the results during this Review Period. Staff is proposing an adjustment as addressed in Section K of this report related to KCPL's failure to sell RECs created by this wind facility. Staff recommends the Commission issue an Ordered Adjustment as previously determined in Section K of this report. Staff is not proposing an adjustment related to the financial performance of the energy portion of this contract.

4. Documents Reviewed

a. Staff Data Request Nos. 0001, 0002, 0021, 0045, 0047, 0047.1, 0059 and 0060;

b. KCPL 2017 Annual Renewable Energy Standard Compliance Plan;

c. KCPL 2018 Annual Renewable Energy Standard Compliance Plan;

d. Staff Report in Case No. EO-2017-0271; and

e. Staff Report in Case No. EO-2018-0290.

Staff Expert/Witness: Lisa Wildhaber

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, and Second Revised Sheet No. 50.13, applicable to service provided June 8, 2017 through December 6, 2018, defines the Purchased Power Costs ("PP") components, which are purchases of power through the SPP IM and not electric generated by the company.

Staff has determined that KCPL's total purchased power expense for the prudence Review Period is $** ________ **, as shown previously in Table 2. More detail for the cost of Purchased Power is shown in Table 11.

Table 11 – Confidential

**

**

KCPL had six long-term purchase power agreements in effect at the start of the review period: Cimarron 2, Slate Creek, Spearville 3, Waverly, Osborn 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.

Cimarron 2, Slate Creek, Osborn, Spearville 3, Waverly, and Rock Creek

KCPL had long-term purchased power contracts with six wind farms during the Review Period. A further description of these contracts can be found in Sections L, M, N, O, P, and Q.

CNPPID Hydro Power Purchase Agreement

KCPL has a long-term (10-year) purchase power agreement with CNPPID 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 $** ____ ** per MWh and ** __ ** MW of capacity and is a "take-or pay" contract. CNPPID is not a Division of Energy certified renewable energy resource. Costs of electricity under the CNPPID purchase power agreement are $** ________ ** for January 1, 2017 through June 30, 2018.

Non-firm Short Term Energy

KCPL purchases hourly energy in 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. Under the SPP IM, KCPL's generation is offered to the SPP Integrated Marketplace and energy needed for native load requirements is purchased from the SPP market. "Spot purchases and sales are made based upon SPP market and operating conditions for the entire SPP footprint." Costs for the IM purchases are included as "Non-Firm Short Term Energy" in Table 2 and Table 5. Further discussion of KCPL's participation in these markets can be found in Section III.A. of this report.

Short Term Demand

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. 0001, 0002, 0010, 0021, 0045, 0047, 0047.1, 0059 and 0060;

b. PPA Contracts; and

c. Section III.A. of this report.

Staff Expert/Witness: Lisa Wildhaber

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 Review Period KCPL's average monthly interest rate was 0.22%. KCPL's interest amount applied to the under-recovered or over-recovered fuel and purchased power costs was $1,987,715[27]. The interest amount is component "I" of KCPL's FAC.

[27] This interest amount includes interest amounts during AP4, AP5 and AP6 plus adjustments to interest amounts for prior accumulation periods made during the Review Period. Following is the list of prior accumulation period adjustment with the resulting interest amounts: 1) AP4-There was an adjustment for unit train depreciation and property tax of ($382,900) with ($7,342) of interest removed from FAC and a second adjustment where SFR/Muni amount removed twice with interest of $1,840 added back to the FAC from AP3; 2) AP5-A

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.

a. Data Request No. 0001-Files named: Q0001 CONF KCPL FAC section 7 Filing – 4th, 5th and 6th Accumulation Files (June 2017, December 2017, June 2018 respectively);

b. Data Request No. 0046 Response-mpsc_20180926-f.2-answer-.0046.docx; and

c. Staff Work Papers: KCPL Section 7 Filing-4th, 5th and 6th Accumulation (June 2017, December 2017, June 2018 respectively).

Staff Expert/Witness: Cynthia M. Tandy

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transmission cost correction was make of ($28,736) with ($851) in interest from prior period that was removed; and 3) AP6-an adjustment from December 2017 on FAR monthly filing calculations of $9,633 with $22 adjustment in interest added back. Thus, the total interest only adjustments for the Review Period was ($6,331) for a total interest amount of $1,981,384.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Second Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of Kansas City Power and Light Company	))))	Case No. EO-2019-0068

AFFIDAVIT OF KORY J. BOUSTEAD

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW KORY J. BOUSTEAD and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff Report – Second Prudence Review*; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Kory J. Boustead
KORY J. BOUSTEAD

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 28th day of February 2019.

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 Second Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of Kansas City Power and Light Company	)) Case No. EO-2019-0068))

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 *Staff Report – Second Prudence Review*; 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 28th day of February 2019.

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 Second Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of Kansas City Power and Light Company	))))	Case No. EO-2019-0068

AFFIDAVIT OF JORDAN HULL

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW JORDAN HULL and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Report – Second Prudence Review*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Jordan Hull
JORDAN HULL

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 28th day of February 2019.

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 Second Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of Kansas City Power and Light Company	))))	Case No. EO-2019-0068

AFFIDAVIT OF BROOKE MASTROGIANNIS

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW BROOKE MASTROGIANNIS and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff Report – Second Prudence Review*; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Brooke Mastrogiannis
BROOKE MASTROGIANNIS

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 28th day of February 2019.

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 Second Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of Kansas City Power and Light Company	))))	Case No. EO-2019-0068

AFFIDAVIT OF CYNTHIA M. TANDY

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW CYNTHIA M. TANDY and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff Report – Second Prudence Review*; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Cynthia M. Tandy

CYNTHIA M. TANDY

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 28th day of February 2019.

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 Second Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of Kansas City Power and Light Company	)) Case No. EO-2019-0068))

AFFIDAVIT OF LISA WILDHABER

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW LISA WILDHABER and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff Report – Second Prudence Review*; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Lisa Wildhaber

LISA WILDHABER

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 28th day of February 2019.

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