Exhibit No.:	______________
Issue(s):	Fuel Adjustment Clause
Witness/Type of Exhibit:	Mantle/Direct
Sponsoring Party:	Public Counsel
Case No.:	ER-2016-0285

DIRECT TESTIMONY

OF

LENA M. MANTLE

Submitted on Behalf of the Office of the Public Counsel

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. ER-2016-0285

November 30, 2016

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service	))))	Case No. ER-2016-0285

AFFIDAVIT OF LENA MANTLE

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Lena Mantle, of lawful age and being first duly sworn, deposes and states:

1. My name is Lena Mantle. I am a Senior Analyst for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my direct testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

Lena M Mantle
Lena M. Mantle
Senior Analyst

Subscribed and sworn to me this 30th day of November 2016.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI
JERENE A. BUCKMAN
My Commission Expires
August 23, 2017
Cole County
Commission #13754037

Jerene A. Buckman
Jerene A. Buckman
Notary Public

My Commission expires August 23, 2017.

INDEX

INTRODUCTION	1
GENERAL OVERVIEW OF OPC'S RECOMMENDED FAC	4
CONSISTENCY WITH MISSOURI STATUTE	6
INCREASED TRANSPARENCY	13
LIMIT DISINCENTIVES FOR IMPLEMENTATION OF EFFICIENCIES	16
SIMPLIFY PRUDENCE REVIEWS	18
SIMPLIFY FAC TARIFF SHEETS	22
THE MAJORITY OF CURRENT FAC COSTS ARE INCLUDED	23
GREATER INCENTIVE FOR COST MANAGEMENT	25
ADDITIONAL REPORTING REQUIREMENT	27

DIRECT TESTIMONY

OF

LENA M. MANTLE

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. ER-2016-0285

INTRODUCTION

Q. Please state your name and business address.

A. My name is Lena M. Mantle and my business address is P.O. Box 2230, Jefferson City, Missouri 65102.

Q. By whom are you employed and in what capacity?

A. I am employed by the Missouri Office of the Public Counsel ("OPC") as a Senior Analyst.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the OPC.

Q. Please describe your experience and your qualifications.

A. I was employed by the OPC in my current position as Senior Analyst in August 2014. In this position, I have provided expert testimony in electric and water cases before the Commission on behalf of the OPC.

Prior to being employed by the OPC, I worked for the Staff of the Missouri Public Service Commission ("Staff") from August 1983 until I retired as Manager of the Energy Unit in December 2012. During the time I was employed at the Missouri Public Service Commission ("Commission"), I worked as an Economist, Engineer, Engineering Supervisor and Manager of the Energy Unit.

Attached as Schedule LM-D-6 is a brief summary of my experience with OPC and Staff and a list of the Commission cases in which I filed testimony, Commission rulemakings in which I participated, and Commission reports in rate cases to which I contributed as Staff. I am a Registered Professional Engineer in the State of Missouri.

Q. Would you provide a summary of your background with respect to the fuel adjustment clause?

A. After the enactment of Section 386.266 RSMo which allows the Commission to grant the electric utilities a fuel adjustment clause ("FAC"), Staff, OPC, representatives from the electric utilities, and other stakeholders worked together to draft proposed rules for the Commission's consideration to implement the statute. The draft rule development process included many stakeholder meetings where the participants developed proposed wording for draft rules to present to the Commission for its consideration. I attended and participated in all of the stakeholder meetings serving as Staff "scribe" at these meetings and personally recorded the compromise language. I also participated in drafting language regarding Staff's positions for the stakeholders' consideration in this process.

Once the Commission published its proposed FAC rules I attended, on behalf of the Staff, several of the public hearings the Commission held around the state on its proposed rules in August and September of 2006.

After the rules became effective I have, in my employment with Staff and OPC, either filed testimony or participated in the determination of FAC positions in every general rate case where a Missouri investor-owned electric utility requested the establishment or modification of an FAC under the current statute. In addition, I have reviewed and, sometimes offered testimony, in every FAC rate change, prudence review, and true-up case conducted in Missouri.

Drawing on my experience, I have written a white paper providing information on the history of the FAC in Missouri and a general description of the FAC as implemented in Missouri. This whitepaper is attached to this testimony and labeled Schedule LM-D-5.

Q. Is OPC recommending the Commission approve an FAC for KCPL in this case?

A. Yes. OPC is recommending an FAC that will provide KCPL with a reduction in risk regarding its recovery of its fuel and purchased power expenses while reducing the complexity of KCPL's FAC, increase the transparency of KCPL's FAC, provide more of an incentive for KCPL to prudently manage its fuel and purchased power costs and reduce the potential for errors in its FAC.

GENERAL OVERVIEW OF OPC'S RECOMMENDED FAC

Q. Would you outline the FAC OPC is recommending for KCPL?

A. OPC is recommending the Commission approve an FAC for KCPL with the following features:

1. Only the following prudently incurred costs shall be included in KCPL's FAC:
    a. Delivered fuel commodity costs including:
        i. Inventory adjustments to the commodities;
        ii. Adjustments to cost due to quality of the commodity; and
        iii. Taxes on fuel commodities;
    b. The cost of transporting the commodity to the generation plants;
    c. The cost of power purchased to meet its native load; and
    d. Transmission cost directly incurred by KCPL for purchased power and off-system sales.
2. These costs would be offset by:
    a. Off-system sales revenue net of the cost of generation or purchased power to make those sales; and
    b. Net insurance recoveries, subrogation recoveries and settlement proceeds related to costs and revenues included in the FAC.
3. An incentive mechanism that requires changes in KCPL's fuel adjustment rates ("FARs") to account for 90% of the difference between the actual prudently

incurred costs net of off-system sales and the net FAC costs included in its base rates. The other 10% would be absorbed or retained by KCPL ("90/10 incentive mechanism").

OPC is not proposing any changes to the administration of the FAC, e.g. there would be no change in accumulation and recovery periods. However, OPC is requesting an additional FAC monthly reporting requirement of providing the FAC costs and revenues by subaccount for the month and the twelve months ending that month.

Q. What are the benefits of the FAC is OPC proposing?

A. These are the following benefits to OPC's recommended FAC:

1. Consistency with Section 386.266.1 RSMo;
2. Increases transparency of the costs and revenues included in KCPL's FAC;
3. Limits the disincentive for implementation of efficiencies;
4. Simplifies FAC prudence audits;
5. Simplifies KCPL's FAC tariff sheets;
6. Recovers the majority of KCPL's current FAC costs; and
7. Provides an incentive for KCPL to effectively manage fuel, purchased power and off-system sales.

CONSISTENCY WITH MISSOURI STATUTE

Q. The first benefit you listed was that OPC's recommended FAC would be consistent with Section 386.266.1 RSMo. Would you please explain?

A. Yes. The first benefit listed above is that the costs included in OPC's recommended FAC would be consistent with Missouri's statute that gives the Commission the authority to grant electric utilities it regulates a mechanism to recover certain costs between rate cases. Specifically, Section 386.266.1 RSMo states:

> Subject to the requirements of this section, any electrical corporation may make an application to the commission to approve rate schedules authorizing an interim energy charge, or periodic rate adjustments outside of general rate proceedings to reflect increases and decreases in <u>its prudently incurred fuel and purchased power costs, including transportation</u>. The commission may, in accordance with existing law, include in such rate schedules features designed to provide the electrical corporation with incentives to improve the efficiency and cost-effectiveness of its fuel and purchased-power procurement activities. (emphasis added).

Q. How is OPC's recommendation consistent with Section 386.266.1?

A. Fuel commodity and the transportation of that commodity to KCPL's generating facility is the purest definition of fuel and transportation costs. There can be no argument the drafters of the statute intended these costs be included in an FAC. The statute does not mention fuel adders, fuel handling, contractor costs, spinning reserve costs, startup costs, hedging costs, and a myriad of other costs and revenues that KCPL is requesting to include in its FAC.

Purchased power to meet native load, either through bilateral contracts or on the SPP market also clearly meets the statute's intent. OPC's recommended FAC would limit purchased power costs included in KCPL's FAC to the cost of energy from long-term bilateral contracts, capacity charges from bilateral contracts that change annually or more frequently, and energy purchased on the SPP integrated market to meet native load or to make off-system sales.

Q. Transmission is not mentioned in the statute. Why is OPC recommending certain transmission costs be included in KCPL's FAC?

A. The Missouri Appeals Court in 2013 concluded "the legislature intended the word "transportation" in Section 386.266.1 RSMo to encompass "transmission."'[1] Beginning with the Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri") rate case, ER-2014-0258, the Commission has limited the recovery of transmission costs in FACs for Ameren Missouri, the Empire District Electric Company, and KCPL. This summer, the Appeals Court upheld the Commission's decision in KCPL's last rate case, ER-2014-0370, affirming the Commission's decision to allow only transmission costs for "true" purchased power and off-system sales in the FAC.[2]

[1] Union Electric Company v. PSC, 422 S. W. 3d 358, 367 (Mo. App. 2013)
[2] *In the Matter of KCP&L's Request for Authority to Implement a General Rate Increase, et. al., v. Mo. Pub. Serv. Comm'n*, WD79125 Consolidated with WD79143 and WD79189 (Opinion Affirming Commission's Report and Order issued on Sept. 6, 2016. KCPL's motion for rehearing overruled and motion for transfer to Supreme Court denied on Sept. 21, 2016. KCPL's application for transfer to the Supreme Court is pending).

The Commission has ordered limited transmission costs for all of the electric utilities in Missouri. On page 115 of its *Report and Order* in the Ameren Missouri rate case, ER-2014-0258, the Commission stated:

> [Section 386.266.1] allows for recovery of transportation costs, which has been determined to include transmission costs, but such transmission costs are limited to those connected to purchased power costs.

In its *Report and Order* in the Empire rate case, ER-2014-0351, the Commission stated:[3]

> Therefore, the costs Empire incurs related to transmission that are appropriate for the FAC, from a policy perspective and by statute, are:
>
> 1) Costs to transmit electric power it did not generate to its own load ("true purchased power"); or
>
> 2) Costs to transmit excess electric power it is selling to third parties to locations outside of its RTO ("Off-system sales").

In its *Report and Order* in the last KCPL rate case, ER-2014-0370, the Commission stated:[4]

> [I]t would not be lawful for KCPL to recover all of its [Southwest Power Pool ("SPP")] transmission fees through the FAC. In addition, while KCPL's transmission costs are increasing, those costs are known, measurable, and not unpredictable, so the costs are not volatile. The Commission concludes that the appropriate transmission costs to be included in the FAC are 1) costs to transmit electric power it did not generate to its own load (true purchased power); and 2) costs to transmit excess electric power it is selling to third parties to locations outside of SPP (off-system sales).

Lastly, the Commission approved a Stipulation and Agreement in the recent KCP&L – Greater Missouri Operation Company ("GMO") rate case, ER-2016-0156, in which the parties agreed to the following:

[3] Page 28.

> The cost and revenues in GMO's FAC will not include transmission costs associated with Crossroads Energy center and will be consistent with those in Kansas City Power & Light Company's current FAC[.]

Q. How were these Report and Orders implemented?

A. A normalized amount of "true" purchased power mega-watt hours ("MWh") were determined using the outputs of the Staff production cost fuel models for each of the electric utilities. This amount was divided by the utility's normalized load MWh. This percentage, calculated for each electric utility, was applied to the non-administrative RTO costs of the utility.

Q. Is this a measure of the transmission costs directly tied to "true" purchased power and off-system sales?

A. No. This methodology allows a percentage of all non-administrative RTO costs to be included in FACs whether those costs are directly tied to "true" purchased power and off-system sales or not. OPC is recommending the Commission restrict the transmission costs included in KCPL's FAC to the costs of transmission that can directly be tied to purchased power and off-system sales.

Q. Would you give an example of an RTO cost that is included that is not directly tied to KCPL's purchased power or off-system sales?

A. The current methodology allows KCPL to include in its FAC a portion of the SPP Base Plan project costs which is KCPL's largest RTO cost. It is my understanding

[4] Page 35.

that SPP members are charged as these transmission project costs are incurred so SPP can recover the cost of these large transmission projects as they are being built. Once the line is built, then the users of that line are charged to recover the cost of building the transmission providing revenues to the members that paid for the line to be built. In the future, if KCPL uses these lines to purchase power or make off-system sales SPP will charge KCPL for the use of the line to return investment to its members that paid for the line to be built. The revenues from the use of these lines will be provided to the utilities that funded these lines.

Q. Are these transmission projects necessary for KCPL to purchase power or make off-system sales?

A. OPC, in its Data Request 8009, asked KCPL if these projects were directly linked to KCPL's ability to purchase power for its native load or make off-system sales. In its response, KCPL could not tie these costs to its "true" purchased power or off-system sales. Since these projects are not directly linked, there should be <u>no</u> Base Plan funding included in KCPL's FAC.

Q. Can KCPL distinguish which costs are directly tied to true purchased power and off-system sales?

A. Yes. Point-to-point ("PTP") and network integration transmission service ("NITS") fees are directly tied to true purchased power and off-system sales. OPC recommends these be the only transmission costs included in KCPL's FAC.

Q. What is OPC's proposal regarding other SPP costs of which a percentage are currently included in the FAC?

A. In its response to OPC data request 8010, KCPL categorized the SPP costs and revenues it was proposing to be included in it FAC into four categories – ARR/TCR, Energy, Power Fee, and Ancillary Charge. This list is duplicated in Schedule LM-D-1 attached to this testimony. None of the SPP Integrated Market ("IM") costs and revenues in this data request are categorized as "transmission." OPC recommends that the only SPP IM cost and revenues categorized by KCPL in its response to this data request as "Energy" should be included in the FAC. This would limit the SPP IM charges that are included in KCPL's FAC to Day Ahead Asset Energy, Day Ahead Non-Asset Energy, Real Time Asset Energy, and Real Time Non-Asset Energy. The only other SPP costs that would be included would be the PTP and NITS transmission costs.

Q. The statute is silent with regards to off-system sales. Why is OPC recommending that the Commission include off-system sales in KCPL's FAC?

A. OPC is recommending the inclusion of off-system sales revenue and the cost generate or purchase power to make those sales because it is very difficult to accurately determine the fuel costs incurred to make off-system sales. If off-system sales are not included in the FAC, KCPL would have to make a determination of the cost of fuel and purchased power used to make off-system sales and remove those costs from the FAC. Not including off-system sales revenue in the FAC opens an avenue for errors, could result in different positions regarding the appropriate fuel cost to allocate to off-system sales, and would increase the potential for imprudence.

Q. Does OPC's recommended FAC include revenues for off-system sales of capacity?

A. Yes, it does. Just as capacity cost of purchased power is included, revenues from capacity sales are included.

Q. Why should net insurance recoveries, subrogation recoveries and settlement proceeds related to costs and revenues be included in KCPL's FAC?

A. These costs and revenues should be included consistent with the Commission's determination in the KCPL rate case ER-2014-0370 where it found on page 39 of its *Report and Order*:

> Insurance recoveries, subrogation recoveries and settlement proceeds related to costs and revenues included in the FAC are revenues typically related to an unexpected incident or accident. If these types of revenues do occur, it is likely that at some point in time, prior to the receipt of the recovery or settlement, there were increased costs or reduced revenues due to that circumstance that have been included in the fuel adjustment rates paid by customers.

Q. Is KCPL requesting costs that are not "fuel and purchased power costs, including transportation" in its FAC?

A. Yes, it is. However, this is not apparent or easy to determine given the limited explanation of the costs and revenues KCPL is proposing be included in its FAC provided by Mr. Rush in his direct testimony.

This leads to the second benefit of OPC's FAC recommendation listed above: the Commission, Staff, KCPL, and other interested parties will know exactly what is included in KCPL's FAC in contrast to the lack of transparency in KCPL's current FAC.

INCREASED TRANSPARENCY

Q. Are the descriptions of the costs and revenues KCPL is proposing to be included in its FAC provided in its direct filing comprehensive?

A. No, the descriptions provided, while consisting of more words than KCPL's request for the establishment of an FAC in its last rate case, ER-2014-0370, do not provide a comprehensive list of what KCPL is proposing to include in its FAC. However, KCPL did provide more information in response to OPC data request 1314. As a part of this data request, OPC requested a listing, by account and resource code, of the costs and revenues that KCPL is proposing be included in its FAC and whether or not the cost or revenue is in KCPL's FAC. The response to this data request gives a clearer picture of the costs and revenues KCPL is requesting to be included than the explanations provided by KCPL in its direct filing in this case. This listing reveals that KCPL is asking for much more than fuel, purchased power, transmission, and off-system sales revenues to be included in its FAC. KCPL is requesting a myriad of costs, including meals, entertainment, airline baggage fees, cell phones, and lodging to be included in its FAC. I have attached to this testimony the list provided in response to this data request sorted into 1) Schedule LM-D-2 which is a list of subaccounts and resource codes that KCPL is asking be included in its FAC that are currently not included in its FAC, 2) Schedule LM-D-3 which is a list of subaccounts and resource codes that are currently included in KCPL's FAC that KCPL is requesting remain in its FAC, and 3) Schedule LM-D-4 which is a list of the costs in the subaccounts that KCPL currently excludes from its FAC and is proposing to continue to be excluded. KCPL is only requesting one cost currently included in its FAC not continue to be in its proposed FAC – natural gas hedging costs – because it is no longer incurring those costs.

Q. What conclusion can be made from reviewing the costs provided in response to OPC data request 1314 and shown on these schedules?

A. The descriptions provided by KCPL in its direct filing are not transparent regarding the costs and revenues it is requesting to be included in its FAC in this case. In addition, KCPL's response to data request 1314 shows that many of the costs that KCPL is requesting to be included are not "fuel and purchased power costs including transportation."

Q. What could be the consequences if the Commission approves KCPL's vague list of costs and revenues it is requesting to be included in its FAC?

A. The Commission would be approving the inclusion of baggage fees, cell phones, entertainment, meals and many other non-fuel and purchase power costs in KCPL's FAC. In addition if the FAC, as described in KCPL testimony, is approved there is nothing to stop KCPL from including all the costs on Schedule LM-D-6 and more because the Commission would be approving a subaccount but not the specific costs. Schedules LM-D-2 through LM-D-4 show that by approving a subaccount, the Commission is opening the door to allowing all types of costs to be included if KCPL records the cost in one of the Commission approved accounts.

Q. What leads OPC to believe that KCPL would reclassify costs so that they would be included in the FAC?

A. In this case KCPL is attempting to do this in this case. Beginning in January 2016, KCPL "reclassified" some of the costs it had previously recorded in FERC account 502, which is not currently included in KCPL's FAC, to FERC account 501 which is included in KCPL's current FAC, and, in this case, is proposing these costs to be included in its FAC.[5]

[5] KCPL's direct filing did not explain that these costs, not previously included in its FAC, were being moved to an account that KCPL is requesting be included in its FAC despite the Commission rule requirement, 4 CSR 240-3.161(3)(O), that the electric utility provide a description of how the costs included in the proposed FAC differ from the filing in the last general rate case.

Q. Would these costs that KCPL reclassified be included in OPC's recommended FAC?

A. No. OPC is recommending that the Commission approve limited specific costs and revenues for KCPL's FAC. While the subaccount each of these costs are recorded in should be identified, it is the specific cost, not the subaccount that the Commission should consider and approve.

Q. Would OPC's recommended FAC resolve these issues?

A. This issue would be limited by OPC's recommendation to limit the cost and revenues in KCPL and to define what is included in the FAC by the cost and revenue type, not the account number as proposed by KCPL.

LIMIT DISINCENTIVES FOR IMPLEMENTATION OF EFFICIENCIES

Q. How does the FAC create a disincentive for implementation of efficiencies?

A. When a cost is included in the FAC it can create a disincentive for the utility to implement cost efficiencies. Consider, for example, there are various products that can be used in Air Quality Control Systems and that the Commission only approves a certain product - $100 for powder activated carbon ("PAC") but does not allow trona costs in the FAC because the utility is not incurring the cost and has no plans to incur the cost. A disincentive is created if the utility discovers after the approval of its FAC it can accomplish the same air quality using $80 of trona ($20 less than what was included in base rates). However, since the Commission approved the inclusion of PAC but not trona, implementing the use of trona would mean the utility does not collect the $100 for powder activated carbon through the FAC and must still spend $80 for the trona. Thus, as demonstrated in this hypothetical, including a cost in the FAC can create a disincentive for implementing future efficiencies. If, as OPC is proposing, neither the cost of PAC or trona are included in the FAC, the utility would have an incentive to use the new more cost efficient trona so that it would realize $20 in savings which would either offset cost increases in other areas or increase shareholder earnings.

Q. Then to avoid this disincentive, should the Commission allow greater discretion in what is included in the FAC?

A. No, it should not. The Commission addressed this in its *Report and Order* in ER-2014-0370[6] when it stated:

> KCPL argues that the FAC should include all costs and revenues relating to net fuel and purchased power costs, whether or not they are currently being incurred. However, allowing a new cost or revenue to flow through an FAC is a modification to that FAC, which under Section 386.266, RSMo, only the Commission has the authority to modify. It is the Commission that should make the determination as to what costs or revenues should flow through the FAC, not the electric utility.

Expanding the costs included in the FAC to costs the electric utility is not incurring but may sometime in the future without limit allows the electric utility to determine what is in the FAC. The proper way to reduce this type of incentive is to limit the costs to what is specifically included in section 386.266 as recommended by OPC. The fewer the costs included in the FAC the less likely this type of disincentive would occur. It also meets the statutory requirement of the Commission determining what is included in the FAC not the electric utility.

SIMPLIFY PRUDENCE REVIEWS

Q. The next benefit you list is a simplification of prudency reviews. Would you please explain?

A. Defining the FAC by the costs and revenues included and not by account would greatly simplify a prudence review. For example, if the Commission approves coal commodity cost that is recorded in account 501 then that is what is reviewed for prudency. No cost other than coal commodity costs should flow through the FAC. Including any other costs would be violating the Commission-approved FAC. If instead the Commission approves costs by account, for example all costs included in account 501, the difficulty of showing of imprudence would greatly increase because the utility has some discretion to assign costs to accounts. The challenge of imprudence changes from showing the utility was imprudent in incurring a cost to showing that the cost, even if prudently incurred, should not be included in the FAC.

[6] Page 39.

Limiting the types of costs and revenues included in KCPL's FAC would greatly reduce the number of costs and revenues that would need to be reviewed in a prudence audit. If the Commission approves the FAC as proposed by KCPL there is a multitude of costs that, in a comprehensive review, would need to be reviewed for prudence including office expenses, contract labor, and travel. Instead of attempting to audit dozens of vaguely described non-fuel and non-purchased power expenses identified by subaccount and the numerous types of costs that KCPL may decide to record in these subaccounts, auditors could concentrate on the cost of the fuel commodity, the cost to transport that commodity to the generation plant, purchased power and off-system sales – the actual costs contemplated by statute and regulation.

Q. Would you comment on the effectiveness of FAC prudence audits?

A. Ideally, FAC prudence audits would identify all instances where an imprudent action by an electric utility resulted in harm to the customers with respect to each of the costs and revenues in an FAC. In practice, prudence audits are limited in scope because the costs and revenues included in the FAC lack detail and are obscured from review. Due to resource constraints even an experienced auditor's ability to identify imprudence becomes dependent on chance rather than the result of a thorough review.

Q. Is there an example of a Staff prudence audit of an FAC that did not find a multi-million dollar flow through of costs that should not have been collected from customers in its FAC?

A. Yes. In the last Staff GMO FAC audit, the Commission's Energy Resources Staff analyzed a variety of items in examining whether GMO prudently incurred the fuel and purchased power costs associated with GMO's FAC for the period of December 1, 2013 through May 31, 2015.[7] One of the items Staff reviewed was transmission costs. GMO's FAC, to comply with Commission order in ER-2012-0175, was to include only transmission costs necessary to receive purchased power to serve native load and make off-system sales. No transmission costs associated with the Crossroads Generating facility were to be included in GMO's base rates or in its FAC. Staff reported it found no indication GMO's transmission costs were imprudent during the review period.[8] The Commission found Staff's report and recommendation to be reasonable and approved Staff's report.[9]

In its FAC true-up case filed on July 1, 2016, in case no. ER-2017-0002, GMO notified the Commission that it was including in its true-up amount a correction of $4.6 million of transmission costs associated with Crossroads that it had flowed through its FAC. This came to light when GMO began doing research

[7] Case no. EO-2016-0053, *Prudence Review of Costs Related to the Fuel Adjustment Clause for the Electric Operations of KCP&L Greater Missouri Operations Company*, filed February 29, 2016.
[8] *Prudence Review of Costs Related to the Fuel Adjustment Clause for the Electric Operations of KCP&L Greater Missouri Operations Company*, page 23.
[9] *Order approving Staff's Prudence Review*, effective April 15, 2016

to answer data requests issued by Staff's Auditing Department in GMO's rate case ER-2016-0156. This is an error that was not found in Staff's prudence audit that the Commission had approved and demonstrates the importance of requiring the utility to provide detailed information relating to the discrete costs and revenues included.

Q. Why is this important to this KCPL case?

A. GMO's FAC record keeping and reporting are performed by KCPL employees. Errors like this are likely to happen given the complexity of KCPL's FAC, the lack of transparency regarding what is included in KCPL's FAC, staffing resource constraints, and the fact that the auditor has to know the right questions to ask to get the right information. This discovery of incorrect costs flowing through the FAC came only after Staff's Auditing Department submitted several probing data requests in the recent GMO rate case, ER-2016-0156, not in an FAC prudence review.

Q. How would OPC's FAC recommendation reduce the likelihood of this happening?

A. While not guaranteeing this would not happen again, the FAC recommended by OPC would reduce the number and types of costs and revenues included in KCPL's FAC, thus reducing the likelihood that such errors would occur again in the future.

SIMPLIFY FAC TARIFF SHEETS

Q. How would OPC recommended FAC simplify FAC tariff sheets?

A. The FAC tariff sheets would no longer need to reflect a long list of SPP charges and revenues and a process for including costs if SPP changes how it charges KCPL for services.

Q. Why should SPP costs and revenues be removed from the FAC?

A. Simply because SPP costs and revenues other than spot market purchased power costs and off-system sales revenues are not fuel or purchased power costs. They are the costs incurred and revenues received in doing business through an RTO and in the RTO market. Section 386.266 RSMo requires costs that are included in the FAC be limited to fuel and purchased power costs, including transportation. Many of the SPP charges that KCPL is requesting be included in its FAC were not even envisioned when the law was drafted.

Q. What is the impact of removing SPP costs and revenues from KCPL's FAC?

A. The exemplar FAC tariff sheets provided as Schedule TMR-3 in KCPL witness Rush's direct testimony include two pages that list 64 different SPP charge/revenue types that KCPL requests to flow through its FAC.[10] A comprehensive prudence review should include carefully looking at each of these 64 charge and revenue

[10] Explanations of these SPP charge and revenue types are not included in KCPL's attempt to meet the Commission's FAC minimum filing requirements of complete explanations of all costs and revenues that KCPL is requesting be included in its FAC.

types for imprudence and to avoid the type of errors described above. If costs and revenues included in KPCL's FAC were limited as proposed by OPC, prudence reviews could be more comprehensive since the number of SPP costs and revenues to be reviewed would be greatly reduced.

In addition, KCPL proposed tariff sheets contain a process for that would allow KCPL to recover a cost if it is "like" an SPP cost listed in the tariff sheets. The description of the process is detailed on proposed sheets 50.14 through 50.16. With the SPP costs limited as proposed by OPC there would no longer be a need for a process to include new SPP charges and revenues that are "like" SPP costs and revenues already included in the FAC.

THE MAJORITY OF CURRENT FAC COSTS ARE INCLUDED

Q. How does OPC's recommendation impact KCPL's FAC costs?

A. Only the non-fuel and non-purchased power costs now included in KCPL's FAC would be impacted. A large majority of the costs in KCPL's current FAC and the FAC proposed by KCPL in this case are fuel commodity, the transportation of that commodity, and purchased-power costs, the impact on total cost recovery is slight. Importantly, OPC's recommendation would still result in KCPL recovering increases in true fuel and purchased power costs thus reducing the risk to KCPL of increases in fuel and purchased power costs. As previously discussed, OPC's recommended FAC would reduce disincentives for cost efficiencies. This along with OPC's recommended sharing incentive could actually result in greater earnings for KCPL.

Q. Would removal of costs from the FAC result in KCPL not recovering the non-fuel and purchased power costs KCPL is proposing to be included in its FAC?

A. No, it would not. These costs would still be included in the revenue requirement for KCPL. Excluding these costs from the FAC would restore the traditional ratemaking incentives to KCPL in regards to these costs. If KCPL can find efficiencies that could reduce these costs, then shareholders could see a benefit. Including these costs in the FAC removes KCPL's incentive to take actions to decrease these non-fuel and non-purchased power costs.

Likewise, removal of revenue "types" from the FAC would not result in ratepayers losing the benefits from these revenue sources. Normalized revenues from these sources would still be included in determining the revenue requirement. If KCPL can find efficiencies that could increase these revenues (excluded from the FAC), then shareholders could see a greater benefit. In contrast, including non-fuel and purchased power revenues in an FAC may create apathy regarding increasing these revenues since KCPL would see very little benefit to increasing revenues.

GREATER INCENTIVE FOR COST MANAGEMENT

Q. How would a 90/10 incentive mechanism affect KCPL's cost recovery when fuel costs are increasing?

A. It depends on how accurate the FAC costs and revenues put into base rates are and how much the costs increase. If the base is accurate and costs increase 10%, then KCPL will recover 99.1% of its actual fuel costs. If the costs increase 20%, then KCPL will still collect 98.3% of its fuel costs. Under either scenario, KCPL receives a significant benefit with an FAC.

Q. How would changing the incentive mechanism to 90/10 affect KCPL's cost recovery when fuel costs are decreasing?

A. Again, it depends on how accurate the FAC costs and revenues put into base rates are and how much the costs decrease. If the base is accurate and costs decrease 10%, then KCPL will recover 101.1% of its actual fuel costs. If the costs decrease 20%, then KCPL will collect 102.5% of its actual fuel costs.

Q. How does that compare to what KCPL would recover with a 95/5 incentive mechanism?

A. The table below summarizes the difference in the percent of costs KCPL would recover with the 90/10 and 95/5 sharing mechanisms.

Comparison of
Percent of FAC Costs Recovered

Actual Costs as percent of Base Fuel Costs	Incentive Mechanism	
	90/10	95/5
120%	98.3%	99.2%
110%	99.1%	99.5%
100%	100%	100%
90%	101.1%	100.6%
80%	102.5%	101.3%

Q. Would you summarize this table?

A. With the current incentive mechanism which KCPL proposes to continue, KCPL recovers essentially all of its FAC costs even if fuel costs increase 20%. A 95/5 sharing mechanism provides little to no incentive for KCPL to take any actions to keep the FAC costs within 20% of what is included in base rates. A 90/10 sharing mechanism actually results in an impact, albeit small, on cost recovery when FAC costs increase. It also provides more of an incentive to KCPL to decrease its FAC costs.

Q. Would you summarize the benefits of the FAC proposed by OPC?

A. The FAC proposed by OPC would result in the recovery of 90% of the actual cost of its fuel commodity (including the transportation of the commodity), and purchased power, net of off-system sales, above what is included in base rates. It maintains consistency with the state law granting the Commission authority to allow KCPL an FAC. It limits the costs and revenues included in the FAC and increases the transparency of what is included in the FAC. By removing non-fuel and purchased power costs it eliminates the disincentive for KCPL to implement more efficiencies in these cost areas. It reduces the likelihood of errors and increases the ability to conduct a comprehensive prudence review. Lastly, it offers a more meaningful incentive for KCPL to manage, to the extent it is able, the fuel and purchased power costs and off-system sales revenues.

ADDITIONAL REPORTING REQUIREMENT

Q. What additional monthly FAC reporting requirement is OPC recommending the Commission order KPCL to provide?

A. OPC is requesting KCPL provide in its monthly FAC submission a list of all the costs and revenues included in its FAC, by subaccount, for that month and for the preceding 12 months. This will provide OPC and the other parties with information regarding changes in these costs. Currently, many of the costs are aggregated which provides little detail regarding each of the costs and revenues included in the FAC. This makes it difficult to determine what is causing changes in the FAC rates.

Q. Does this conclude your direct testimony?

A. Yes.

SPP Integrated Market Revenues

Description	Category	Account
Auction Revenue Rights Funding	ARR/TCR	447
Transmission Congestion Rights Auction Transaction	ARR/TCR	447
Transmission Congestion Rights Funding	ARR/TCR	447
Transmission Congestion Rights Monthly Payback	ARR/TCR	447
Transmission Congestion Rights Uplift	ARR/TCR	447
Day Ahead Asset Energy	Energy	447
Real Time Asset Energy	Energy	447
Real Time Non-Asset Energy	Energy	447
Day Ahead Grandfathered Agmt Carve Out Dist Daily Amt	Power Fee	447
Day Ahead Grandfathered Agmt Carve Out Dist Mnthly Amt	Power Fee	447
Real Time Make Whole Payment	Power Fee	447
Real Time Make Whole Payment Distribution	Power Fee	447
Real Time Out of Merit	Power Fee	447
Real Time Over Collected Losses Distribution	Power Fee	447
Real Time Regulation Deployment Adjustment	Power Fee	447
Real Time Revenue Neutrality Uplift Distribution	Power Fee	447
Unused Regulation Down Mileage Make Whole Payment	Power Fee	447
Unused Regulation Up Mileage Make Whole Payment	Power Fee	447

SPP Transmission Costs

Description	Category	Account
Transmission expense		565

SPP Integrated Market Costs

Description	Category	Account
Day Ahead Regulation Down	Ancillary charge	555
Day Ahead Regulation Down Distribution	Ancillary charge	555
Day Ahead Regulation Up	Ancillary charge	555
Day Ahead Regulation Up Distribution	Ancillary charge	555
Day Ahead Spinning Reserves	Ancillary charge	555
Day Ahead Spinning Reserves Distribution	Ancillary charge	555
Day Ahead Supplemental Reserves	Ancillary charge	555
Day Ahead Supplemental Reserves Distribution	Ancillary charge	555
Real Time Contingency Reserve Deployment Failure	Ancillary charge	555
Real Time Contingency Reserve Deployment Failure Dist	Ancillary charge	555
Real Time Regulation Down	Ancillary charge	555
Real Time Regulation Down Distribution	Ancillary charge	555
Real Time Regulation Non-Performance	Ancillary charge	555
Real Time Regulation Non-Performance Distribution	Ancillary charge	555
Real Time Regulation Up	Ancillary charge	555
Real Time Regulation Up Distribution	Ancillary charge	555
Real Time Spinning Reserves	Ancillary charge	555
Real Time Spinning Reserves Distribution	Ancillary charge	555
Real Time Supplemental Reserves	Ancillary charge	555
Real Time Supplemental Reserves Distribution	Ancillary charge	555
Day Ahead Asset Energy	Energy	555
Day Ahead Non-Asset Energy	Energy	555
Real Time Asset Energy	Energy	555
Day Ahead Grandfathered Agmt Carve Out Dist Daily Amt	Power Fee	555
Day Ahead Grandfathered Agmt Carve Out Dist Mnthly Amt	Power Fee	555
Day Ahead Make Whole Payment Distribution	Power Fee	555
Miscellaneous Amount	Power Fee	555
Real Time Make Whole Payment Distribution	Power Fee	555
Real Time Over Collected Losses Distribution	Power Fee	555
Real Time Reserve Sharing Group Distribution	Power Fee	555
Real Time Revenue Neutrality Uplift Distribution	Power Fee	555

Currently Excluded from KCPL's FAC but Proposed to be Included by KCPL

456100		#N/A
501420	1100	COST OF MATERIAL INVENTORY
501420	1325	SECURITY SERVICES
501420	1615	CONTRACTORS EQUIP RENTAL
501420	1625	CONTRACTORS LABOR
501420	1630	CONTRACTORS MATERIALS
501420	1720	MEAL ALLOWANCE BARGAINING UNIT
501420	9300	MATERIAL LOADS
501500	1100	COST OF MATERIAL INVENTORY
501500	1199	OTHER MATERIALS NO LOADINGS
501500	1200	CONFERENCES & SEMINARS
501500	1226	OFCEQUIP&SUPP <THAN $100PERITM
501500	1235	PRINTING EXPENSES
501500	1240	SUBSCRIPTIONS & PUBLICATIONS
501500	1245	SAFETY AND MEDICAL SUPPLIES
501500	1260	INDIV TECH/PROF DUES/MEMBR FEE
501500	1290	EMPLOYEE AMENITIES
501500	1299	OFFICE EXPENSES OTHER
501500	1320	CONSULTING FEES
501500	1355	LEGAL FEES
501500	1399	OTHER OUTSIDE SERVICES
501500	1400	AIRFARE & AIRLINE BAGGAGE FEES
501500	1405	BUSINESS MEALS
501500	1410	LODGING
501500	1415	MEALS BILLABLE TO OTHERS
501500	1420	MILEAGE REIMBURSEMENT
501500	1425	PARKING FEES
501500	1435	RENTAL CAR EXPENSE
501500	1499	TRAVEL OTHER
501500	1500	DATA PROC SOFTWARE & SUPPORT
501500	1620	CONTRACTORS FIXED FEE
501500	1625	CONTRACTORS LABOR
501500	1705	EMPLOYEE EVENT MEAL
501500	1710	EMPLOYEE GIFTS & AWARDS
501500	2600	PROPERTY DAMAGE CLAIMS
501500	2700	TELEPHONE SERVICE/MAINT/EQUIP
501500	2710	CELL PHONES
501500	2799	COMMUNICATION COSTS OTHER
501500	4200	ACCOUNTING & CIS USE ONLY
501500	6006	PHY INV ADJ PRB
501500	6050	BOTTOM ASH
501500	6055	FLY ASH
501500	6057	FGD BYPRODUCTS
501500	6060	SLAG
501500	6099	FUEL OTHER
501500	6150	UNIT TRAIN MAINTENANCE
501500	9200	FLEET LOADS
501500	9300	MATERIAL LOADS
501500	EX01	T&E ONLY AIRFARE&AIRLINE FEES
501500	EX02	T&E ONLY CONF/SEMINAR/TRAIN RG
501500	EX03	T&E ONLY DUES/MEMB FEE/LICENSE
501500	EX06	T&E ONLY HOTEL/LODGING
501500	EX07	T&E ONLY MEALS & ENTERTAINMENT
501500	EX08	T&E ONLY MILEAGE
501500	EX09	T&E ONLY MISCELLANEOUS/OTHER
501500	EX11	T&E ONLY TELEPHONE CHARGES
501500	EX12	T&E ONLY CAR RENTAL
501500	EX15	T&E ONLY SUBSCRIPTN/PUBLICATN
501500	EX16	T&E ONLY SUPPLIES
501500	EX17	T&E ONLY TAXI/BUS/SHUTTLE/PARK
501501	1199	OTHER MATERIALS NO LOADINGS
501501	9200	FLEET LOADS
501502	1100	COST OF MATERIAL INVENTORY
501502	1399	OTHER OUTSIDE SERVICES
501502	1615	CONTRACTORS EQUIP RENTAL
501502	1625	CONTRACTORS LABOR
501502	1630	CONTRACTORS MATERIALS
501502	1720	MEAL ALLOWANCE BARGAINING UNIT
501502	2710	CELL PHONES
501502	6006	PHY INV ADJ PRB
501502	9200	FLEET LOADS
501502	9300	MATERIAL LOADS
501503	1199	OTHER MATERIALS NO LOADINGS
501503	4200	ACCOUNTING & CIS USE ONLY
501503	6044	SULFUR
501504	1199	OTHER MATERIALS NO LOADINGS
501504	1226	OFCEQUIP&SUPP <THAN $100PERITM
501504	1260	INDIV TECH/PROF DUES/MEMBR FEE
501504	1320	CONSULTING FEES
501504	1399	OTHER OUTSIDE SERVICES
501504	1400	AIRFARE & AIRLINE BAGGAGE FEES
501504	1405	BUSINESS MEALS
501504	1410	LODGING
501504	1420	MILEAGE REIMBURSEMENT
501504	1425	PARKING FEES
501504	1499	TRAVEL OTHER
501504	6057	FGD BYPRODUCTS
501504	9200	FLEET LOADS
501504	EX01	T&E ONLY AIRFARE&AIRLINE FEES
501504	EX03	T&E ONLY DUES/MEMB FEE/LICENSE
501504	EX06	T&E ONLY HOTEL/LODGING
501504	EX07	T&E ONLY MEALS & ENTERTAINMENT
501504	EX08	T&E ONLY MILEAGE
501504	EX09	T&E ONLY MISCELLANEOUS/OTHER
501504	EX17	T&E ONLY TAXI/BUS/SHUTTLE/PARK
501506	1100	COST OF MATERIAL INVENTORY
501506	1105	MATERIAL RETURNED TO INVENTORY
501506	1199	OTHER MATERIALS NO LOADINGS
501506	1299	OFFICE EXPENSES OTHER
501506	1399	OTHER OUTSIDE SERVICES
501506	1430	MANAGEMENT PER DIEM
501506	1610	CONTRACTORS MEALS
501506	1615	CONTRACTORS EQUIP RENTAL
501506	1620	CONTRACTORS FIXED FEE
501506	1625	CONTRACTORS LABOR
501506	1630	CONTRACTORS MATERIALS
501506	1699	CONTRACTORS OTHER MISC EXP
501506	1720	MEAL ALLOWANCE BARGAINING UNIT
501506	9200	FLEET LOADS
501506	9300	MATERIAL LOADS
501506	EX08	T&E ONLY MILEAGE
501506	EX13	T&E ONLY SAFETY SHOES
501507	1100	COST OF MATERIAL INVENTORY
501507	1105	MATERIAL RETURNED TO INVENTORY
501507	1199	OTHER MATERIALS NO LOADINGS
501507	1615	CONTRACTORS EQUIP RENTAL
501507	1625	CONTRACTORS LABOR
501507	1630	CONTRACTORS MATERIALS
501507	1720	MEAL ALLOWANCE BARGAINING UNIT
501507	9200	FLEET LOADS
501507	9300	MATERIAL LOADS
501508	1100	COST OF MATERIAL INVENTORY
501508	1105	MATERIAL RETURNED TO INVENTORY
501508	1615	CONTRACTORS EQUIP RENTAL
501508	1620	CONTRACTORS FIXED FEE
501508	1625	CONTRACTORS LABOR

Currently Excluded from KCPL's FAC but Proposed to be Included by KCPL

501508	1630	CONTRACTORS MATERIALS
501508	1699	CONTRACTORS OTHER MISC EXP
501508	1720	MEAL ALLOWANCE BARGAINING UNIT
501508	9200	FLEET LOADS
501508	9300	MATERIAL LOADS
501509	1100	COST OF MATERIAL INVENTORY
501509	1105	MATERIAL RETURNED TO INVENTORY
501509	1199	OTHER MATERIALS NO LOADINGS
501509	1420	MILEAGE REIMBURSEMENT
501509	1615	CONTRACTORS EQUIP RENTAL
501509	1620	CONTRACTORS FIXED FEE
501509	1625	CONTRACTORS LABOR
501509	1630	CONTRACTORS MATERIALS
501509	1699	CONTRACTORS OTHER MISC EXP
501509	1720	MEAL ALLOWANCE BARGAINING UNIT
501509	2710	CELL PHONES
501509	6099	FUEL OTHER
501509	9200	FLEET LOADS
501509	9300	MATERIAL LOADS
501509	EX01	T&E ONLY AIRFARE&AIRLINE FEES
501509	EX02	T&E ONLY CONF/SEMINAR/TRAIN RG
501509	EX03	T&E ONLY DUES/MEMB FEE/LICENSE
501509	EX06	T&E ONLY HOTEL/LODGING
501509	EX07	T&E ONLY MEALS & ENTERTAINMENT
501509	EX08	T&E ONLY MILEAGE
501509	EX17	T&E ONLY TAXI/BUS/SHUTTLE/PARK
501510	1100	COST OF MATERIAL INVENTORY
501510	1105	MATERIAL RETURNED TO INVENTORY
501510	1199	OTHER MATERIALS NO LOADINGS
501510	1615	CONTRACTORS EQUIP RENTAL
501510	1625	CONTRACTORS LABOR
501510	1630	CONTRACTORS MATERIALS
501510	1699	CONTRACTORS OTHER MISC EXP
501510	1720	MEAL ALLOWANCE BARGAINING UNIT
501510	9200	FLEET LOADS
501510	9300	MATERIAL LOADS
501510	EX08	T&E ONLY MILEAGE
547100	1199	OTHER MATERIALS NO LOADINGS
547100	1240	SUBSCRIPTIONS & PUBLICATIONS
547100	1399	OTHER OUTSIDE SERVICES
547100	6099	FUEL OTHER
547100	9200	FLEET LOADS
547102	1199	OTHER MATERIALS NO LOADINGS
547102	1240	SUBSCRIPTIONS & PUBLICATIONS
547102	1299	OFFICE EXPENSES OTHER
547102	1320	CONSULTING FEES
547102	1399	OTHER OUTSIDE SERVICES
547102	6099	FUEL OTHER
547103	9200	FLEET LOADS
561400	1299	OFFICE EXPENSES OTHER
561400	1390	RTO CHARGES/FEES
561400	1399	OTHER OUTSIDE SERVICES
561400	4200	ACCOUNTING & CIS USE ONLY
561800	1390	RTO CHARGES/FEES
561800	4200	ACCOUNTING & CIS USE ONLY
575700	1390	RTO CHARGES/FEES
575700	4200	ACCOUNTING & CIS USE ONLY
928000	1386	REGULATORY ASSESSMENTS-FERC
928000	1390	RTO CHARGES/FEES

Currently included in KCPL's FAC and proposed to be included by KCPL

447012		#N/A
447014		#N/A
447020		#N/A
447020	4200	ACCOUNTING & CIS USE ONLY
447020	6140	TRANSMISSION CONGESTION RIGHTS
447030		#N/A
501000	1199	OTHER MATERIALS NO LOADINGS
501000	6000	COAL BIT
501000	6001	PHY INV ADJ BIT
501000	6005	COAL PRB
501000	6006	PHY INV ADJ PRB
501000	6016	#2 FUEL OIL
501000	6018	PHY INV ADJ OIL
501000	6020	NATURAL GAS
501000	6021	SSCGP TRANSPORT
501000	6022	MGE TRANSPORT
501000	6094	IND STEAM OIL
501020	6099	FUEL OTHER
501030	6099	FUEL OTHER
501300	6040	LIME
501300	6041	AMMONIA/UREA
501300	6042	PAC
501300	6043	PHY INV ADJ LIMESTONE
501300	6044	SULFUR
501300	6045	LIMESTONE
501300	6046	HYDRATED LIME
501400	1100	COST OF MATERIAL INVENTORY
501400	1615	CONTRACTORS EQUIP RENTAL
501400	1625	CONTRACTORS LABOR
501400	1630	CONTRACTORS MATERIALS
501400	1699	CONTRACTORS OTHER MISC EXP
501400	1720	MEAL ALLOWANCE BARGAINING UNIT
501400	6044	SULFUR
501400	6050	BOTTOM ASH
501400	6055	FLY ASH
501400	6057	FGD BYPRODUCTS
501400	6060	SLAG
501400	9200	FLEET LOADS
501400	9300	MATERIAL LOADS
509000	3200	AMORTIZATION DEBT EXP
509000	6075	SO2 AMORTIZATION
518000	4100	WOLF CREEK/JEC OTHER
518000	6038	NUCLEAR FUEL
518100	4100	WOLF CREEK/JEC OTHER
518100	6016	#2 FUEL OIL
518201	4100	WOLF CREEK/JEC OTHER
518201	6039	NUCLEAR FUEL DISPOSAL
547000	1399	OTHER OUTSIDE SERVICES
547000	6016	#2 FUEL OIL
547000	6018	PHY INV ADJ OIL
547000	6020	NATURAL GAS
547000	6021	SSCGP TRANSPORT
547000	6022	MGE TRANSPORT
547000	6024	PANHANDLE TRANSPORT
547000	6027	REFUNDS NATURAL GAS
547300	6041	AMMONIA/UREA
547300	6099	FUEL OTHER
555000	4200	ACCOUNTING & CIS USE ONLY
555000	6140	TRANSMISSION CONGESTION RIGHTS
555030	4200	ACCOUNTING & CIS USE ONLY
555005	4200	ACCOUNTING & CIS USE ONLY
565000	4200	ACCOUNTING & CIS USE ONLY
565020	4200	ACCOUNTING & CIS USE ONLY
565030	4200	ACCOUNTING & CIS USE ONLY

Currently Excluded from KCPL's FAC and Proposed to be Excluded by KCPL

501000	6025	GAS RESERVATION
501400	1005	LABOR STRAIGHT TIME UNION
501400	1015	LABOR OVERTIME UNION
501400	9140	PRLD COMPENSATED ABSENCES
501420	1005	LABOR STRAIGHT TIME UNION
501420	1015	LABOR OVERTIME UNION
501420	9140	PRLD COMPENSATED ABSENCES
501500	1001	LABOR STRAIGHT TIME NON UNION
501500	1005	LABOR STRAIGHT TIME UNION
501500	1010	LABOR OVERTIME NON UNION
501500	1015	LABOR OVERTIME UNION
501500	1030	LUMP SUM MERIT
501500	9140	PRLD COMPENSATED ABSENCES
501501	1001	LABOR STRAIGHT TIME NON UNION
501501	9140	PRLD COMPENSATED ABSENCES
501502	1001	LABOR STRAIGHT TIME NON UNION
501502	1005	LABOR STRAIGHT TIME UNION
501502	1015	LABOR OVERTIME UNION
501502	9140	PRLD COMPENSATED ABSENCES
501503	9140	PRLD COMPENSATED ABSENCES
501504	1001	LABOR STRAIGHT TIME NON UNION
501504	9140	PRLD COMPENSATED ABSENCES
501506	1001	LABOR STRAIGHT TIME NON UNION
501506	1005	LABOR STRAIGHT TIME UNION
501506	1010	LABOR OVERTIME NON UNION
501506	1015	LABOR OVERTIME UNION
501506	9140	PRLD COMPENSATED ABSENCES
501507	1001	LABOR STRAIGHT TIME NON UNION
501507	1005	LABOR STRAIGHT TIME UNION
501507	1010	LABOR OVERTIME NON UNION
501507	1015	LABOR OVERTIME UNION
501507	9140	PRLD COMPENSATED ABSENCES
501508	1001	LABOR STRAIGHT TIME NON UNION
501508	1005	LABOR STRAIGHT TIME UNION
501508	1015	LABOR OVERTIME UNION
501508	9140	PRLD COMPENSATED ABSENCES
501509	1001	LABOR STRAIGHT TIME NON UNION
501509	1005	LABOR STRAIGHT TIME UNION
501509	1010	LABOR OVERTIME NON UNION
501509	1015	LABOR OVERTIME UNION
501509	9140	PRLD COMPENSATED ABSENCES
501510	1001	LABOR STRAIGHT TIME NON UNION
501510	1005	LABOR STRAIGHT TIME UNION
501510	1010	LABOR OVERTIME NON UNION
501510	1015	LABOR OVERTIME UNION
501510	9140	PRLD COMPENSATED ABSENCES
509000	6070	WIND REC
509000	6071	SOLAR REC
509000	6171	WIND REC SPEARVILLE 2
509000	6172	WIND REC SPEARVILLE 3
509000	6173	WIND REC CIMMARON
509000	6178	REC SUBSCRIPTION FEE
509000	6179	REC REGISTRATION FEE
509000	6180	KS SOLAR REC 1
509000	6181	KS WIND REC 1
509000	6182	NE HYDRO
547000	6025	GAS RESERVATION
547027	6025	GAS RESERVATION
547100	1001	LABOR STRAIGHT TIME NON UNION
547100	1005	LABOR STRAIGHT TIME UNION
547100	1015	LABOR OVERTIME UNION
547100	9140	PRLD COMPENSATED ABSENCES
547101	1001	LABOR STRAIGHT TIME NON UNION
547101	9140	PRLD COMPENSATED ABSENCES
547102	9140	PRLD COMPENSATED ABSENCES
547103	1005	LABOR STRAIGHT TIME UNION
547103	1015	LABOR OVERTIME UNION
547103	9140	PRLD COMPENSATED ABSENCES

Electric Utility Fuel Adjustment Clause in Missouri: History and Application Whitepaper

Lena M. Mantle, P.E.
Senior Analyst
Office of the Public Counsel

July 14, 2016

Electric Utility Fuel Adjustment Clause in Missouri:
History and Application Whitepaper

Introduction

The purpose of this whitepaper is to provide a general description of the history of electric utility fuel adjustment clauses ("FACs") in Missouri prior to and after the passage of Section 386.266 Revised Missouri Statutes ("RSMo") in 2005[1] and provide an understanding of the functionality of the FACs currently implemented throughout the state of Missouri. This whitepaper is not an exhaustive description of the FAC in Missouri but is intended to provide a basic understanding of the history and application of Section 386.266 in a neutral and unbiased manner.

Recovery of Fuel and Purchased Power Costs Prior to Section 386.266 RSMo

In the 1979 Missouri Supreme Court opinion of *Utility Consumer Council of Missouri, Inc. v. P.S.C*,[2] the Court concluded FAC surcharges were unlawful because they allowed rates to go into effect without considering all relevant factors. The Court warned "to permit such a clause would lead to the erosion of the statutorily-mandated fixed rate system."[3] The Court further explained, "If the legislature wishes to approve automatic adjustment clauses, it can of course do so by amendment of the statutes and set up appropriate statutory checks, safeguards, and mechanisms for public participation."[4]

After this Supreme Court opinion, fuel and purchased power costs for Missouri investor-owned utilities were normalized and included in the determination of the utility's revenue requirement for general rate proceedings. This provided an incentive to the electric utility that, if it managed its activities in a manner that allowed it to reliably serve its customers at a cost lower than what was included in its revenue requirement in the last rate case, all the savings were retained by the electric utility. If costs were greater than the costs included in the revenue requirement, the electric utility absorbed the increased costs. When the electric utility believed that it could no longer absorb the increased costs, the electric utility would ask the Commission for an increase in its rates.

[1] Section 386.266 RSMo was Truly Agreed To and Finally Passed by the Missouri House of Representatives and Senate on April 27, 2005. Governor Matt Blunt signed this legislation on July 14, 2005.
http://www.senate.mo.gov/05info/BTS_Web/Actions.aspx?SessionType=R&BillID=5755
[2] State ex rel. Utility Consumers Council, Inc. v. P.S.C., 585 S.W.2d 41(MO. 1979)
[3] Id. at 57.
[4] Id.

This incentive worked well for the Missouri electric utilities and their customers for the next twenty-five years. The two largest investor-owned electric utilities, Union Electric Company ("Union Electric") and Kansas City Power & Light Company ("KCPL") went for a period of twenty years without a rate increase request due to the excess generation they built in the 1970's and 1980's. Capital costs of these plants were included in the customers' rates of these electric utilities. Excess generation and capacity from these utilities and other regional providers that over-built was sold through long-term contracts on a cost-plus basis to the smaller investor-owned electric utilities in the state. This resulted in minimal rate increase requests for these smaller investor-owned electric utilities and offset some of the capital costs paid by Union Electric Company and KCPL's customers. Eventually the large utilities' customers load requirements grew into the need for their own capacity and they did not renew the long-term contracts. Then, to meet their customers' needs, the smaller electric utilities began to build the least cost option - natural-gas fired generation plants. While these plants were inexpensive to build, the fuel cost was uncertain.

In the early 1990's, restructuring of the electric utilities began occurring in other parts of the nation. In the mid-1990's the Missouri Legislature considered restructuring Missouri's investor-owned electric utility companies. At the end of 2000, after two months of extraordinarily cold weather and continued reports of extreme storage withdrawals, the commodity price of natural gas spiked to nearly $10 per thousand cubic feet ("Mcf") in late December after remaining consistently between $1/Mcf to $3/Mcf since the inception of the unregulated wholesale natural gas markets in the 1980s.[5] These wildly fluctuating natural gas prices had little impact on the total fuel costs of KCPL and Union Electric since most of their customers' needs were met through nuclear and coal generation. However, the fluctuating natural gas prices significantly impacted the smaller electric utilities' fuel and purchased power costs.

Overview of Section 386.266 RSMo

The provisions of Section 386.266 RSMo, also known as Senate Bill 179 ("SB 179"), took effect on January 1, 2006.[6] This section gives the Missouri Public Service Commission ("Commission"), among other things, the authority to approve rate schedules authorizing periodic rate adjustments outside of general rate proceedings to reflect increases and decreases in its prudently incurred fuel and purchased power costs, including transportation costs. An FAC is a mechanism designed to reflect increases and decreases in fuel and purchased power costs, including transportation. The statute, in addition to requiring approval from the Commission for the implementation of an FAC, includes other provisions including some consumer protections.

[5] Missouri Public Service Commission EFIS Case No. GW2001398XXX, Item no. 44, Final Report of the Missouri Public Service Commission's Natural Gas Commodity Price Task Force, August 29, 2001
[6] §386.266.12.

It requires the Commission to approve, modify, or reject FACs only as a part of a general rate case proceeding in which all costs and relevant factors are considered. It allows the Commission to include in an FAC features designed to provide incentives to improve the efficiency and cost-effectiveness of the electric utility's fuel and purchased-power procurement activities. If the Commission approves an FAC, the electric utility with the FAC must file a general rate increase case with effective dates of new rates no later than four years after its approval. Prudence reviews of the costs included in an FAC are to be conducted at least every eighteen months and true-ups are required at least annually. Amounts charged/refunded to the customers through an FAC are required to be separately disclosed on each customer's bill.

Section 386.266.1, which is the provision that grants the Commission the authority to approve, reject or modify FACs, applies only to investor-owned electric utilities in Missouri. At the time it became effective, there were four investor-owned electric utilities in Missouri – Union Electric, KCPL, Aquila, Inc. ("Aquila"), and the Empire District Electric Company ("Empire"). Union Electric subsequently did business as AmerenUE and is now doing business as Ameren Missouri. Aquila is now doing business as KCP&L – Greater Missouri Operations Company ("GMO").

<u>Development of Commission Rules Regarding FACs</u>

Section 386.266.9 RSMo gives the Commission the authority to promulgate rules to govern the structure, content, and operation of FACs. The Commission is also given the authority to promulgate rules regarding the procedures for the submission, frequency, examination, hearing, and approval of FACs. Soon after Section 386.266 RSMo went into effect, the Staff of the Public Service Commission ("Staff") began the work of developing rules governing the implementation of this section. It was determined that there would be two rules: one rule, found in *Chapter 3 Filing and Reporting Requirements* of the Commission's rules as *4 CSR 240-3.161 Electric Utility Fuel and Purchased Power Cost Recovery Mechanisms Filing and Submission Requirements*, provides the filing and information requirements necessary for requesting approval, continuation, modification, and discontinuation of an FAC along with filing and submission requirements for changes to the FAC rates and true-ups. It also provides the contents of quarterly surveillance reports and monthly reporting requirement for electric utilities that are allowed an FAC. A second rule, *4 CSR 240-20.090 Electric Utility Fuel and Purchased Power Cost Recovery Mechanisms,* provides the structure and governance requirements for an FAC.

Staff worked diligently with a broad group of stakeholders - including representatives from electric utilities, large customers, AARP, and the Office of the Public Counsel ("OPC") in the development of proposed rules to present to the Commission. Auditors, engineers, economists, and attorneys worked together in over fifteen workshops collaborating to develop specific language to propose to the Commission rules to implement the provisions of Section

386.266 RSMo pertaining to FACs. The Commission opened Case No. EX-2006-0472 on June 15, 2006 with a finding of necessity for rules to establish and implement an FAC and began the formal rulemaking process with the proposed 4 CSR 240-3.161 and 4 CSR 240-20.090 rules developed through the collaborative workshop process. Public hearings regarding the proposed FAC rules were held in Kansas City, St. Louis, Overland, Cape Girardeau, Jefferson City and Joplin in late August 2006 and early September 2006. Written comments were received from seven individuals and fourteen groups or companies. The Commission issued its final orders of rulemaking on September 21, 2006.[7] The final order was published in the December 1, 2006 *Missouri Register* effective January 30, 2007.[8]

Key Provisions of the FAC Rules

Despite concerns that an FAC would contribute to over-earnings by electric utilities by the both the non-utility parties that participated in developing the proposed rules and those that provided comments in the formal rulemaking process, the resulting FAC rules do not contain an earnings test. In FAC proceedings, the Commission is only required to review the costs and revenues included in the FAC. Decreases in expenses and increases in revenues not included in the FAC are not considered by the Commission. However, utilities with an FAC are required by the Commission rules to submit quarterly surveillance reports to Staff, OPC, and other parties. These surveillance reports include rate base quantifications, capital quantifications and income statements for the electric utilities as a whole.[9] The information from these reports includes the earnings of the electric utility for the prior quarter and could be used in an over-earnings complaint case.[10]

Because the statute requires adjustments to FAC rates reflect increases and decreases in prudently incurred costs, the rules require that FAC recoveries be based on historical costs.[11] Therefore, before the electric utility can begin billing to recover FAC costs, the costs in the utility's FAC must be incurred and any revenues included in the FAC to offset those costs must be received. Interest at the utility's short-term debt rate is applied to the net of these costs and revenues and recovered or returned to the ratepayers through the FAC rate.

The rules are not prescriptive regarding the design of FAC rates. However, 4 CSR 240-20.090(9) does require that FAC rates reflect differences in losses incurred in the delivery of electricity at

[7] Missouri Public Service Commission, Case No. EX-2006-0472, EFIS items 27 and 28
[8] http://s1.sos.mo.gov/CMSImages/adrules/moreg/previous/2006/v31n23/v31n23b.pdf
[9] 4 CSR 240-3.161(6)
[10] However, the Commission, in case no. EC-2014-0223, stated that these surveillance reports alone do not provide a complete or accurate picture of earnings sufficient to reset the utility's rates.
[11] 4 CSR 240-20.090(2)(F)

different voltage levels for different rate classes based on system loss studies that must be conducted at least every four years.

While Section 386.266.1 allows the Commission to include features in an FAC designed to provide the electric utilities with incentives to improve the efficiency and cost-effectiveness of the utilities fuel and purchased-power procurement activities, the rules are not prescriptive regarding what such an incentive feature would look like. Instead it allows incentive features to be proposed in rate cases in which an electric utility requests the establishment, continuation or modification of an FAC.[12] Incentive features can be proposed for the Commission's consideration by any of the parties in rate cases in which the electric utility is proposing the establishment, continuation, or modification of an FAC.

Section 386.266 is silent regarding the inclusion in an FAC of any fuel related type of revenues. The Commission rules do not require the inclusion of fuel related revenues, such as off-system sales revenues,[13] in an FAC. The rules do require that if an FAC includes revenues from off-system sales, the FAC include prudently incurred fuel and purchased power costs associated with off-system sales.[14]

<u>History of Requests for FACs</u>

Empire was the first electric utility to request cost recovery of fuel costs under Section 386.266 RSMo when it filed Case No. ER-2006-0315 on February 1, 2006. This case was filed while the Commission rules were being drafted. In this case, Empire did not request an FAC. Instead it requested an Energy Cost Rider ("ECR") to recover costs between rate cases. Due to a stipulation Empire had entered into in a prior rate case, the Commission required Empire to remove from its pleadings and other filings its request and support for an ECR.[15] Prior to Empire's next rate case, Case No. ER-2008-0093 filed on October 1, 2007, the Commission rules had been finalized and were effective. The Commission granted Empire an FAC in its July 30, 2008, *Report and Order* in ER-2008-0093. The Commission has authorized continuation of an FAC with modifications in all general rate cases subsequently filed by Empire.

On July 3, 2006 two of Missouri's investor-owned electric utilities filed general rate increase cases in which they requested an FAC. Union Electric, then doing business as AmerenUE, requested the Commission grant it an FAC in Case No. ER-2007-0002 and Aquila requested an FAC in Case No. ER-2007-0004. While the FAC rules were not final at this time, the Commission had, just eighteen days earlier, sent proposed rules to the Missouri Office of the Secretary of

---

[12] 4 CSR 240-20.090(11)
[13] Off-system sales revenues are the revenues from sales of energy by the electric utility above what is needed by the utility's customers.
[14] 4 CSR 240-3.161(1)(A) and 4 CSR 240-20.090(1)(B)
[15] EFIS item 57, *Order Clarifying Continued Applicability of the Interim Energy Charge*, effective May 12, 2006.

State for publication in the Missouri Register. The Commission's determination of the final FAC rules occurred while these rate cases were pending.

In its May 22, 2007 *Report and Order* in the AmerenUE case ER-2007-0002, the Commission concluded:

> After carefully considering the evidence and arguments of the parties, and balancing the interests of ratepayers and shareholders, the Commission concludes that AmerenUE's fuel and purchased power costs are not volatile enough [to] justify the implementation of a fuel adjustment clause at this time.

AmerenUE filed another general rate increase case on April 4, 2008, again seeking the Commission's approval of an FAC in Case No. ER-2008-0318. In its January 27, 2009 *Report and Order*[16] in this case, the Commission authorized AmerenUE to implement an FAC. The Commission has authorized continuation of an FAC with modifications in all general rate cases subsequently filed by Union Electric now doing business as Ameren Missouri.

The Commission authorized the first FAC for a Missouri investor-owned electric utility under Section 386.266 RSMo in its May 17, 2007 *Report and Order* in Aquila's general rate proceeding in case ER-2007-0004. FAC base rates were approved for each of Aquila's two rate districts, then designated as Aquila Networks-MPS and Aquila Networks-L&P. The actual effective date of Aquila's FAC was delayed when the Commission found that the proposed FAC tariff sheets filed by Aquila were not consistent with its *Report and Order*. Tariff sheets implementing the FAC consistent with the Commission's *Report and Order* were approved on June 29, 2007 effective July 5, 2007. Following this rate case, Great Plains Energy acquired Aquila renamed it GMO. The Commission has authorized the continuation of an FAC with modifications in all general rate cases subsequently filed by GMO.

KCPL was the last Missouri electric utility to be granted an FAC. At the time that SB 179 was being debated at the Legislature, KCPL was negotiating a regulatory plan that would address financial considerations of KCPL's investment in Iatan 2 and other investments and the timeliness of the recovery of the costs of these investments. As a part of the *Stipulation and Agreement*[17] in that case, KCPL agreed, among other items, that prior to June 1, 2015, it would not seek to utilize any mechanism authorized in SB 179. Therefore, KCPL did not request an FAC until the general rate case ER-2014-0370 it filed on October 30, 2014. The Commission granted KCPL an FAC in its September 2, 2015 *Report and Order*.[18] Tariff sheets implementing an FAC for KCPL became effective September 29, 2015.

[16] EFIS item no. 589, page 70
[17] Case No. EO-2005-0329, EFIS item no. 1
[18] EFIS item no. 592, page 30

General Structure of FACs in Missouri

While there are some differences in the details of each electric utility's FAC, the general structure of the FACs of each of the electric utilities is the same. An estimate of the FAC costs and revenues, known as Net Base Energy Cost or NBEC, is identified and included in the base rates of each electric utility. The FAC rate is based on the difference between the FAC costs included in base rates and the actual FAC costs incurred. FAC costs are tracked in a designated accumulation period and the difference between actual FAC costs and NBEC is recovered or returned in a designated recovery period.

Even though the rule is not prescriptive regarding the design of the FAC rate, in practice, all of the electric utility's FAC rates are volumetric rates based on customer energy usage. A base factor is calculated in each general rate proceeding as the NBEC divided by the rate case normalized kilowatt-hours ("kWh"). The Commission's rule requires that the FAC is to be based on historical costs[19] so there cannot be an FAC rate until FAC costs are incurred. Therefore the initial FAC rate, ("FAR"), is set at zero when the Commission approves the establishment of an FAC for each of the electric utilities.

To derive a rate to be charged the customers after FAC costs have been incurred, the difference between the actual costs incurred (actual net energy cost or ANEC) and the costs already included in the base rates (NBEC), either positive or negative, is divided by the expected energy use of the utility's customers over the recovery period. Because rule requires voltage losses to be taken into account in the FAC, a FAR is calculated for each of the voltage levels that the utility provides service at based on loss factors derived in the last rate case. These loss-adjusted FARs are the rate used to bill the FAC to the customers.

Accumulation and Recovery Periods

An accumulation period is the time over which the electric utility tracks the ANEC. Commission rule allows up to four accumulation periods a year but requires at least one accumulation period a year. The Recovery Period is the time period over which the difference between the accumulation period ANEC and NBEC is billed to the utility's customers.

The accumulation periods and recovery periods for the electric utilities are shown in the table below.

---

[19] 4 CSR 240-20.090(2)(F)

Electric Utility	Accumulation Periods	Recovery Periods
Ameren Missouri	February through May	October through May
	June through September	February through September
	October through January	June through January
KCPL	January through June	October through September
	July through December	April through March
GMO	June through November	March through February
	December through May	September through August
Empire	September through February	June through November
	March through August	December through May

The recovery periods are twice as long as the accumulation periods for Ameren Missouri, KCPL, and GMO. The purpose of having recovery periods longer than the accumulation periods is to reduce the FAR and minimize the impact of the change in rates on the customers' bills. Ameren Missouri's accumulation periods are four months and the costs from the four month accumulation period are billed (recovered or returned) over eight months. The accumulation periods of KCPL and GMO are six months while the recovery periods are twelve months. Empire is the only utility where the recovery period is the same length as the accumulation period - both are six months.

The timing of recovery periods for Ameren Missouri, KCPL, and Empire were set to minimize the number of times during a year that changes in rates impact bills. The base rates for all of the electric utilities change twice a year. Base rates are higher in the summer months of June through September for all of the electric utilities because typically the cost to provide electricity is higher in these summer months. The lower, non-summer rates are billed in October through May.

The timing of the recovery periods of Ameren Missouri means that customers see both base rates and FAR changes in June and October and then see another rate change, due to the change in the FAR, in February. Without alignment of the timing of recovery periods, customers of Ameren Missouri could be impacted by changes in rates up to five times a year – twice in base rates and three times for the FAC rates.

Similarly, the timing of one of the FAC recovery periods for KCPL is October when base rates also change. One of Empire's recovery periods begins in the same month that the base rates change for summer resulting in rates changing for Empire's customers only three times a year.

The timing of FAC rate changes for KCPL and Empire results in their customers seeing changes in rates just three times a year instead of four.

Calculation of Fuel Adjustment Rates

At the end of the accumulation period, a NBEC is calculated for the accumulation period based on the Base Rate set in the rate case and the actual energy consumed by the electric utility's customers in the accumulation period. This NBEC is compared to the Actual Net Energy Costs (ANEC) incurred during that accumulation period. The FAR for the accumulation period is then calculated based on the difference between the actual historical costs incurred (ANEC) and the FAC costs billed in the base rates (NBEC) divided by the expected usage of the utility's customers over the recovery period and then adjusting the rate for delivery losses.

This is the FAR that the customer is billed for Empire since the recovery period is the same length as the accumulation period. For the other three electric utilities that have recovery periods that are twice as long as the accumulation periods, the FAR that is billed the customer is actually the sum of the loss adjusted FARs for two consecutive accumulation periods.

Price Signal Resulting From FACs

There is a common misconception that FACs provide customers more accurate price signals than the base rates. There are several reasons Missouri's FAC does not provide accurate price signals to customers. An accurate price signal is timing. Missouri's FAC is based on historical costs so customers are not billed the difference in the FAC costs until months after the costs are incurred. For example, fuel costs incurred in January for KCPL are not billed to its customers until the recovery period that begins in October. At the time that a change in fuel costs is seen on the customers' bills, it may no longer be an accurate representation of the fuel cost the utility is experiencing at that time.

Another reason that FACs in Missouri do not provide accurate price signals is that the accumulation periods bill costs or return savings to customers aggregated over several months. Increases in FAC costs in one month may be offset by decreases in FAC costs in the next month. In addition, the accumulation periods cross seasons of the year when FAC costs typically vary because the load requirements of the customers vary. For these reasons, the length of the accumulation period mutes any price signal.

Long recovery periods designed to reduce FAC rate volatility to customers also mutes the price signal to customers. For example, for KCPL any increase in costs in January is recovered over the time period of October of that same year through September of the next year. An increase in January is spread out over the twelve months of the recovery period so an increase in January combined with changes for all the months in the accumulation period and then spread over twelve months of estimated usage. This is the price signal that the customer is reacting to – not the actual increase in costs in January. In addition, the customer would not even be billed for the increase in costs in January until the October billing month. If FAC costs are volatile, the customer may be reacting to an increase in cost in the previous year during a time period when costs are actually decreasing. In this case, the FAC is sending the wrong price signal to the customer.

For these reasons the design and application of FACs in Missouri do not send accurate price signals to customers.

True-Up of FACs

SB 179 requires that true-ups of FACs occur at least annually.[20] The purpose of a true-up is to make sure that the electric utility recovers all the costs that it is entitled or all amounts due to the customers are refunded. Section 386.266 requires the true-up amount include interest at the electric utility's short-term interest rate.

In practice, true-ups occur after the end of each recovery period. Because KCPL, GMO, and Empire have two recovery periods a year, there are two FAC true-ups a year for these electric utilities. There are three FAC true-ups a year for Ameren Missouri since it has three recovery periods a year. A true-up is simply a comparison of the actual FAC billed the customers in the recovery period to the difference between the actual FAC costs and NBEC in the corresponding accumulation period. This difference, either negative or positive, is added as a true-up amount, including interest, to the FAC costs to be billed in the next recovery period.

The true-up amount is keyed off of the FAC billed not the FAC revenues recovered. This is to reduce complexity of how to deal with under-paid bills. While the FAC amount is separately identified on the customer's bill, the customer that only pays a portion of their bill does not designate what portion of the bill they are paying. The unpaid portion of the bill is included treated uncollectible. The rate case treatment for uncollectibles is determined in the rate case and is not dealt with in the FAC.

Prudence Reviews

[20] Section 386.266.4(2)

Section 386.266.4(4) requires prudence reviews of the costs in the FAC to occur at least every eighteen (18) months. Since the first FAC under section 386.266 was approved for GMO, the first prudence audit was conducted on GMO's FAC, followed by prudence audits on Empire and Ameren Missouri's FACs.[21] In Ameren Missouri's first prudence audit case, EO-2010-0255, the Commission determined that Ameren Missouri "acted imprudently, improperly and unlawfully when it excluded revenues" derived from power sales agreements from its FAC.[22] Because these power sales agreements crossed over two prudence review time periods, the Commission, in Ameren Missouri's second prudence audit, EO-2012-0074, made the same finding.[23] Since then Staff has only recommended one other imprudence finding in an FAC prudence audit. In case no. EO-2011-0390, the third GMO FAC prudence audit case, Staff alleged that GMO had acted imprudently in association with its hedging future purchases of spot market power by buying options to purchase natural gas. The Commission, in its *Report and Order* in this case, found that Staff failed to produce substantial controverting evidence demonstrating serious doubt to rebut the presumption of prudence with regard to GMO's hedging policy.[24]

There have been no other recommendations by the Staff regarding imprudence with respect to the FAC since the September 4, 2012, *Report and Order* in the third GMO FAC prudence audit case.

Incentive Mechanism

SB 179 allows the Commission to include, in an FAC, incentives to improve the efficiency and cost-effectiveness of the electric utilities' fuel and purchased power procurement.[25] The Commission, for each of the electric utilities, found that allowing the utility to have one hundred percent recovery of its FAC costs through an FAC would act as a disincentive for the utility to control FAC costs. The Commission determined that recovering a share of the difference between the NBEC and ANEC allows the electric utility a sufficient opportunity to earn a fair return on equity while protecting customers by providing an incentive to control costs. At the time that this white paper was written, the Commission had set that sharing percentage, for all of the electric utilities, to be 95%/5% - 95% of any increase in FAC costs above NBEC would be billed to the customers and the electric utility absorbs 5% while 95% of a

[21] Case Nos. EO-2009-0115, EO-2010-0084 and EO-2010-0255 for GMO, Empire and Ameren Missouri respectively.
[22] *Report and Order,* page 2
[23] *Report and Order,* page 2
[24] Page 47
[25] Section 386.266.1

decrease in FAC costs below NBEC would be credited to customers and the electric utility retains 5% of the decrease.[26]

Given this incentive mechanism, the amount to be billed through the FAC is 95% of the difference between the ANEC and the NBEC. The result of this incentive mechanism is that, when costs are above the amounts included in base rates, the electric utility recovers almost 100% of the FAC costs. If FAC costs are below the amounts included in base rates, the utility recovers greater than 100% of its FAC costs. The table below shows examples of what occurs when actual costs are greater, equal to, and less than what is in the NBEC.

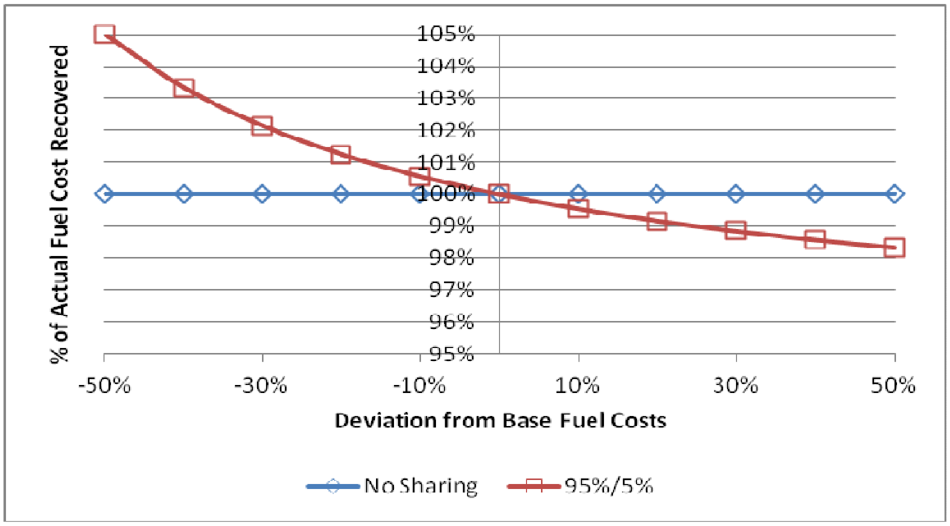
Impact of 95%/5% Sharing Mechanism

NBEC	ANEC	Diff	FAC Amt Billed to Customers	Amt Absorbed/ (Retained) by Company	Total billed to Customers	% FAC Costs Billed
$100	$150	$50	$47.50	$2.50	$147.50	98.3%
$100	$110	$10	$9.50	$0.50	$109.50	99.5%
$100	$100	$0	$0	$0	$100.00	100.0%
$100	$90	($10)	($9.50)	($0.50)	$90.50	100.6%
$100	$50	($50)	($47.50)	($2.50)	$52.50	105%

This table shows incentive mechanism allows the utility to bill its customers for 98.3% of its FAC costs when its ANEC is 50% higher than what is included in base rates, i.e., even if the actual FAC costs incurred are 50% higher than what was included in the base rates, the electric utility recovers 98.3% of its actual FAC costs.[27] Likewise, if actual fuel costs are 50% lower than what is included in base rates, the utility will recover 105% of its actual FAC costs. If the utility manages to reduce its actual FAC costs any amount below NBEC, will recover more 100% of its FAC costs. This relationship is shown in the graph below.

[26] While parties in rate cases have proposed different sharing percentages and/or different incentive mechanisms, the only incentive mechanism implemented has been a 95%/5% sharing of the difference between ANEC and NBEC.

[27] For a utility to bill only 95% of its actual costs, the actual FAC costs would need to be over 1,000 times greater than the costs included in base rates



These relationships hold true regardless of the magnitude of the NBEC.

Importance of Correct NBEC

Because Missouri's FAC is based on the difference between a subset of normalized costs and revenues set in a rate case and actual costs and revenues, it is important the costs and revenues included in the NBEC of the FAC are the same as the costs and revenues included in base rates. The table below shows three different scenarios. To simplify the example, in these scenarios there is no sharing of the difference between ANEC and NBEC. All of the difference between the ANEC and NBEC is billed or returned to the customers.

Net Base Energy Cost (NBEC)	FAC Costs in Base Rates	Actual Net Energy Cost (ANEC)	Billed FAC Costs	Total FAC Costs Billed	Total billed as % of ANEC
Scenario 1 - NBEC Equal FAC Costs in Rates					
$100.00	$100.00	$110.00	$10.00	$110.00	100.00%
$100.00	$100.00	$100.00	$0.00	$100.00	100.00%
$100.00	$100.00	$90.00	-$10.00	$90.00	100.00%
Scenario 2 - NBEC Lower than FAC Costs in Rates					
$100.00	$110.00	$110.00	$10.00	$120.00	109.09%
$100.00	$110.00	$100.00	$0.00	$110.00	110.00%
$100.00	$110.00	$90.00	-$10.00	$100.00	111.11%
Scenario 3 - NBEC Higher than FAC Costs in Rates					
$100.00	$90.00	$110.00	$10.00	$100.00	90.91%
$100.00	$90.00	$100.00	$0.00	$90.00	90.00%
$100.00	$90.00	$90.00	-$10.00	$80.00	88.89%

The first scenario is a correct treatment of NBEC and FAC costs in Rates. NBEC is equal to the FAC costs included in base rates. In this scenario, when ANEC is higher than NBEC, the total FAC costs billed the customer is the $100 billed in the base rates and $10 billed through the FAC for a total of $110. When the ANEC is the same as the NBEC, the customers are billed nothing through the FAC and the utility recovers all of its FAC costs through its base rates. Lastly, when the actual costs are less than the NBEC, the customers' bills are reduced and the utility recovers all of its actual fuel costs.

In Scenario 2, the NBEC designated in the FAC is less than the FAC costs in rates. In this scenario, the customers always pay more than intended. Even when ANEC is the same as the FAC costs included in rates, the customer pays for the difference between the ANEC and NBEC. In this scenario, the customers always paying more than the actual FAC costs because the fuel costs included in the base rates is greater than the costs used to calculate the NBEC.

In Scenario 3, the NBEC is set higher than the FAC costs included in rates. In this scenario, the electric utility does not collect the actual energy costs because the amount of FAC costs included in rates is less than the NBEC set in the FAC. The amount recovered is the lower FAC costs included in rates and the difference between the higher NBEC and ANEC. In this scenario, the company does not receive the revenues that are intended with an FAC.

These scenarios show the importance of insuring that the FAC costs included in base rates are the same as the FAC NBEC. If they are not set correctly, either the customers overpay or the company is not afforded the opportunity to recover its costs as intended.

Future Application of the FAC

The FAC rules have a requirement that the Commission review the effectiveness of the rules by no later than December 31, 2010. On November 12, 2010, the Commission opened a repository file, EW-2011-0139,[28] as a repository file for documents and comments regarding effectiveness of the FAC rules. The electric utilities, OPC and other interested parties filed comments regarding the need for revisions to the rules by March 1, 2011. The Commission issued an order on March 27, 2014 directing staff to file a status report on the revision of the rules. Beginning on April 27, 2015, Staff began hosting a series of three workshops for stakeholders to provide input to Staff on its review of the rules and, where possible, prepare collaborative revisions to the rules. On February 4, 2015, the Commission directed Staff to complete its review and file its recommendations regarding changes to the rules by September

[28] EW-2011-0139, *In The Matter Of A Repository File Concerning Staff's Review Of The Commission's Fuel Adjustment Clause Rules*

15, 2015. The Commission later extended that completion date to November 20, 2015 and then to February 15, 2016. At the time that this whitepaper was updated, the Commission had sent its proposed rule to the Department of Economic Development for review prior to it being sent to the Secretary of State to be published in the Missouri Register for comments.

Education and Work Experience Background of

Lena M. Mantle, P.E.

In my position as Senior Analyst for the Office of the Public Counsel ("OPC") I provide analytic and engineering support for the OPC in electric, gas, and water cases before the Commission. I have worked for the OPC since August, 2014.

I retired on December 31, 2012 from the Public Service Commission Staff as the Manager of the Energy Unit. As the Manager of the Energy Unit, I oversaw and coordinated the activities of five sections: Engineering Analysis, Electric and Gas Tariffs, Natural Gas Safety, Economic Analysis, and Energy Analysis sections. These sections were responsible for providing Staff positions before the Commission on all of the electric and gas cases filed at the Commission. This included reviews of fuel adjustment clause filings, resource planning compliance, gas safety reports, customer complaint reviews, territorial agreement reviews, electric safety incidents and the class cost-of-service and rate design for natural gas and electric utilities.

Prior to being the Manager of the Energy Unit, I was the Supervisor of the Engineering Analysis Section of the Energy Department from August, 2001 through June, 2005. In this position, I supervised engineers in a wide variety of engineering analysis including electric utility fuel and purchased power expense estimation for rate cases, generation plant construction audits, review of territorial agreements, and resolution of customer complaints all the while remaining the lead Staff conducting weather normalization in electric cases.

From the beginning of my employment with the Commission in the Research and Planning Department of the in August, 1983 through August, 2001, I worked in many areas of electric utility regulation. Initially I worked on electric utility class cost-of-service analysis, fuel modeling and what has since become known as demand-side management. As a member of the Research and Planning Department under the direct supervision of Dr. Michael Proctor, I participated in the development of a leading-edge methodology for weather normalizing hourly class energy for rate design cases. I took the lead in developing personal computer programming of this methodology and applying this methodology to weather-normalize electric usage in numerous electric rate cases. I was also a member of the team that assisted in the development of the Missouri Public Service Commission electronic filing and information system ("EFIS").

I received a Bachelor of Science Degree in Industrial Engineering from the University of Missouri, at Columbia, in May, 1983. I am a registered Professional Engineer in the State of Missouri.

Lists of the Missouri Public Service Commission rules in which I participated in the development of or revision to, the Missouri Public Service Commission Testimony Staff reports that I contributed to and the cases that I provided testimony in follow.

Missouri Public Service Commission Rules

4 CSR 240-3.130	Filing Requirements and Schedule of Fees for Applications for Approval of Electric Service Territorial Agreements and Petitions for Designation of Electric Service Areas
4 CSR 240-3.135	Filing Requirements and Schedule of Fees Applicable to Applications for Post-Annexation Assignment of Exclusive Service Territories and Determination of Compensation
4 CSR 240-3.161	Electric Utility Fuel and Purchased Power Cost Recovery Mechanisms Filing and Submission Requirements
4 CSR 240-3.162	Electric Utility Environmental Cost Recovery Mechanisms Filing and Submission Requirements
4 CSR 240-3.190	Reporting Requirements for Electric Utilities and Rural Electric Cooperatives
4 CSR 240-14	Utility Promotional Practices
4 CSR 240-18	Safety Standards
4 CSR 240-20.015	Affiliate Transactions
4 CSR 240-20.017	HVAC Services Affiliate Transactions
4 CSR 240-20.090	Electric Utility Fuel and Purchased Power Cost Recovery Mechanisms
4 CSR 240-20.091	Electric Utility Environmental Cost Recovery Mechanisms
4 CSR 240-22	Electric Utility Resource Planning
4 CSR 240-80.015	Affiliate Transactions
4 CSR 240-80.017	HVAC Services Affiliate Transactions

Office of Public Counsel Case Listing

Case	Filing Type	Issue
ER-2016-0156	Direct, Rebuttal, Surrebuttal	Fuel Adjustment Clause, Resource Planning
ER-2016-0023	Direct, Rebuttal, Surrebuttal	Fuel Adjustment Clause
WR-2015-0301	Direct, Rebuttal, Surrebuttal	Revenues, Environmental Cost Recovery Mechanism
ER-2014-0370	Direct, Rebuttal, Surrebuttal	Fuel Adjustment Clause
ER-2014-0351	Direct, Rebuttal, Surrebuttal	Fuel Adjustment Clause
ER-2014-0258	Direct, Rebuttal, Surrebuttal	Fuel Adjustment Clause
EC-2014-0224	Surrebuttal	Policy, Rate Design

Staff Direct Testimony Reports

ER-2012-0175	Capacity Allocation, Capacity Planning
ER-2012-0166	Fuel Adjustment Clause
ER-2011-0028	Fuel Adjustment Clause
ER-2010-0356	Resource Planning Issues
ER-2010-0036	Environmental Cost Recovery Mechanism
HR-2009-0092	Fuel Adjustment Rider
ER-2009-0090	Fuel Adjustment Clause, Capacity Requirements
ER-2008-0318	Fuel Adjustment Clause
ER-2008-0093	Fuel Adjustment Clause, Experimental Low-Income Program
ER-2007-0291	DSM Cost Recovery

Missouri Public Service Commission Staff Testimony

Case No.	Filing Type	Issue
ER-2012-0175	Rebuttal, Surrebuttal	Resource Planning Capacity Allocation
ER-2012-0166	Rebuttal, Surrebuttal	Fuel Adjustment Clause
EO-2012-0074	Direct/Rebuttal	Fuel Adjustment Clause Prudence
EO-2011-0390	Rebuttal	Resource Planning Fuel Adjustment Clause
ER-2011-0028	Rebuttal, Surrebuttal	Fuel Adjustment Clause
EU-2012-0027	Rebuttal, Surrebuttal	Fuel Adjustment Clause
ER-2010-0356	Rebuttal, Surrebuttal	Resource Planning Allocation of Iatan 2
ER-2010-0036	Supplemental Direct, Surrebuttal	Fuel Adjustment Clause
ER-2009-0090	Surrebuttal	Capacity Requirements
ER-2008-0318	Surrebuttal	Fuel Adjustment Clause
ER-2008-0093	Rebuttal, Surrebuttal	Fuel Adjustment Clause Low-Income Program
ER-2007-0004	Direct, Surrebuttal	Resource Planning
GR-2007-0003	Direct	Energy Efficiency Program Cost Recovery
ER-2007-0002	Direct	Demand-Side Program Cost Recovery
ER-2006-0315	Supplemental Direct, Rebuttal	Energy Forecast Demand-Side Programs Low-Income Programs
ER-2006-0314	Rebuttal	Jurisdictional Allocation Factor
EA-2006-0309	Rebuttal, Surrebuttal	Resource Planning
ER-2005-0436	Direct, Rebuttal, Surrebuttal	Low-Income Programs Energy Efficiency Programs Resource Planning
EO-2005-0329	Spontaneous	Demand-Side Programs Resource Planning

Missouri Public Service Commission Staff Case Listing (cont.)

EO-2005-0293	Spontaneous	Demand-Side Programs Resource Planning
ER-2004-0570	Direct, Rebuttal, Surrebuttal	Reliability Indices Energy Efficiency Programs Wind Research Program
EF-2003-0465	Rebuttal	Resource Planning
ER-2002-425	Direct	Derivation of Normal Weather
EC-2002-1	Direct, Rebuttal	Weather Normalization of Class Sales Weather Normalization of Net System
ER-2001-672	Direct, Rebuttal	Weather Normalization of Class Sales Weather Normalization of Net System
ER-2001-299	Direct	Weather Normalization of Class Sales Weather Normalization of Net System
EM-2000-369	Direct	Load Research
EM-2000-292	Direct	Load Research
EM-97-515	Direct	Normalization of Net System
ER-97-394, et. al.	Direct, Rebuttal, Surrebuttal	Weather Normalization of Class Sales Weather Normalization of Net System Energy Audit Tariff
EO-94-174	Direct	Weather Normalization of Class Sales Weather Normalization of Net System
ER-97-81	Direct	Weather Normalization of Class Sales Weather Normalization of Net System TES Tariff
ER-95-279	Direct	Normalization of Net System
ET-95-209	Rebuttal, Surrebuttal	New Construction Pilot Program
EO-94-199	Direct	Normalization of Net System
ER-94-163	Direct	Normalization of Net System
ER-93-37	Direct	Weather Normalization of Class Sales Weather Normalization of Net System
EO-91-74, et. al.	Direct	Weather Normalization of Class Sales Weather Normalization of Net System
EO-90-251	Rebuttal	Promotional Practices Variance
ER-90-138	Direct	Weather Normalization of Net System
ER-90-101	Direct, Rebuttal, Surrebuttal	Weather Normalization of Class Sales Weather Normalization of Net System
ER-85-128, et. al.	Direct	Demand-Side Update
ER-84-105	Direct	Demand-Side Update