

**PRUDENCE REVIEW OF COSTS
RELATED TO THE FUEL ADJUSTMENT CLAUSE
FOR THE ELECTRIC OPERATIONS
OF
KCP&L GREATER MISSOURI OPERATIONS COMPANY**

December 1, 2013 through May 31, 2015

**MISSOURI PUBLIC SERVICE COMMISSION
STAFF REPORT**

FILE NO. EO-2016-0053

*Jefferson City, Missouri
February 29, 2016*

****Denotes Highly Confidential Information****

Appendix A

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Table of Contents

I.	EXECUTIVE SUMMARY	1
II.	INTRODUCTION	2
	A. GENERAL DESCRIPTION OF GMO'S FAC	2
	B. PRUDENCE STANDARD.....	4
III.	FUEL COSTS, PURCHASED POWER COSTS, NET EMISSION COSTS	4
	A. UTILIZATION OF GENERATION CAPACITY	6
	B. RISK MANAGEMENT	10
	C. PURCHASED POWER HEDGING	13
	D. PLANT OUTAGES.....	16
	E. NATURAL GAS COSTS.....	17
	F. COAL AND RAIL TRANSPORTATION COSTS	20
	G. FUEL OIL COSTS	22
	H. TRANSMISSION COSTS.....	23
	I. SO ₂ ALLOWANCES	24
	J. TIRE-DERIVED FUEL.....	26
	K. OFF-SYSTEM SALES REVENUE	27
	L. MPOWER RIDER AND ENERGY OPTIMIZER/DEMAND RESPONSE PROGRAMS	28
	M. C.W. MINING COST.....	30
	N. RENEWABLE ENERGY CREDIT PURCHASES AND REVENUES.....	31
	O. ST JOSEPH LANDFILL GAS FACILITY	34
	P. GRAY COUNTY WIND PURCHASED POWER AGREEMENT	36
	Q. ENSIGN WIND PURCHASED POWER AGREEMENT.....	37
	R. PURCHASED POWER COSTS	37
IV.	INTEREST	40

Prudence Review of Costs Report

I. Executive Summary

The Missouri Public Service Commission (“Commission”) first authorized a Fuel Adjustment Clause (“FAC”) for Aquila, Inc. (“Aquila”) in Case No. ER-2007-0004. The Commission approved the acquisition of Aquila, by Great Plains Energy, Inc. and subsequently Aquila was renamed KCP&L Greater Missouri Operations Company (“GMO” or “Company”).¹ This acquisition became effective July 14, 2007. Since then, the Commission has approved continuation of GMO’s FAC with modifications in its *Reports and Orders* in the Company’s general rate cases: Case No. ER-2009-0090, Case No. ER-2010-0356, and Case No. ER-2012-0175.

Commission Rule 4 CSR 240-20.090(7) and Missouri Revised Statute § 386.266.4 (2013) require that the Commission’s Staff (“Staff”) conduct prudence reviews of an electric utility’s FAC no less frequently than every 18 months. In this prudence review, Staff analyzed items affecting GMO’s fuel costs; purchased power costs; net emission costs; transmission costs; off-system sales revenues; and renewable energy credit revenues for the fourteenth, fifteenth and sixteenth six-month accumulation periods of GMO’s FAC (“prudence review period”). The fourteenth accumulation period started December 1, 2013 and ended May 31, 2014; and the fifteenth accumulation period started June 1, 2014 and ended November 30, 2014. The sixteenth accumulation period started December 1, 2014 and ended May 31, 2015. Thus, the 18-month prudence review period that is documented in this Prudence Review Report is from December 1, 2013 through May 31, 2015. This is Staff’s sixth Prudence Review Report for GMO’s FAC. Staff’s previous GMO FAC prudence reviews include:

¹ In Case No. EN-2009-0164 the Commission recognized, by order dated November 20, 2008 and made effective December 3, 2008, the name change of Aquila, Inc. d/b/a KCP&L Greater Missouri Operations Company to KCP&L Greater Missouri Operations Company. At different points in time the company now named KCP&L Greater Missouri Operation Company was known as, or did business in Missouri as, Aquila, Inc., Aquila Networks-MPS, and Aquila Networks-L&P. Presently, to the public it, jointly with Kansas City Power & Light Company (“KCPL”) does business using the service mark “KCP&L”. For ease, in this report the KCP&L Greater Missouri Operations Company will be uniformly referred to as “GMO” or “Company.”

Review Number	File Number	Review Period
1	EO-2009-0115	June 1, 2007 through May 31, 2008
2	EO-2010-0167	June 1, 2008 through May 31, 2009
3	EO-2011-0390	June 1, 2009 through November 30, 2010
4	EO-2013-0325	December 1, 2010 through May 31, 2012
5	EO-2014-0242	June 1, 2012 through November 30, 2013

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

Staff analyzed a variety of items in examining whether GMO prudently incurred the fuel and purchased power costs associated with its FAC. Based on its review, Staff found no evidence of imprudence by GMO for the items it examined for the period of December 1, 2013 through May 31, 2015.

II. Introduction

A. General Description of GMO's FAC

Table 1 identifies GMO's Commission-approved FAC tariff sheets which were applicable for service provided by GMO to its customers during the period December 1, 2013 through May 31, 2015:

Table 1

December 1, 2013 through May 31, 2015
2nd Revised Sheet No. 124
2nd Revised Sheet No. 125
2nd Revised Sheet No. 126
Original Sheet No. 126.1
Original Sheet No. 126.2

For each accumulation period (“AP”),² GMO’s Commission-approved FAC allows GMO to recover from (if the actual net energy costs exceed) or refund to (if the actual net energy costs are less than) its ratepayers ninety-five percent (95%) of the “actual net energy costs.”³ Actual net energy costs are defined as the prudently incurred variable fuel costs, purchased power costs, transmission costs and net emissions costs minus off-system sales revenues and renewable energy credit revenues. GMO accumulates variable fuel costs, purchased power costs, transmission costs and net emissions costs minus off-system sales revenues and renewable energy credit revenues during six-month accumulation periods. Each six-month accumulation period is followed by a twelve-month recovery period where the over- or under-recovery (including the monthly application of interest)⁴ during the previous six-month accumulation period relative to the base energy cost amount⁵ is flowed through to ratepayers by an increase or decrease in the FAC Fuel Adjustment Rates (“FAR”) for GMO’s rate districts named MPS and L&P. An adjustment to a FAR is designed to offset the over- or under-recovery for a given AP by the end of the twelve-month recovery period (“RP”).⁶ Because the FAR rarely, if ever, will exactly match the required offset, GMO’s FAC is designed to true-up the difference between the revenues billed and the revenues authorized

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

³ “Actual Net Energy Costs” are equal to fuel costs (FC) plus net emission costs (E) plus purchased power costs (PP) plus transmission costs (TC) minus off-system sales revenue (OSSR) and renewable energy credit revenue (R) as defined on GMO’s 2nd Revised Sheet Nos. 125 and 126.

⁴ See Section IV. Interest of this Prudence Review Report.

⁵ GMO’s P.S.C.MO. No. 1, Original Sheet No. 126.1 defines base energy cost as net system input times the base factor per kWh, calculated separately for MPS and L&P, respectively. The base factors per kWh are approved by the Commission in each general rate case in which the Company’s FAC is continued with modification.

⁶ Recovery periods are: March through February and September through August.

(including the monthly application of interest) for collection during recovery periods. Any disallowance the Commission orders as a result of a prudence review shall include interest at the Company's short-term interest rate and will be accounted for as an item of cost⁷ in a future filing to adjust the FAR.

B. Prudence Standard

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

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

In the same case, the PSC noted that this test of prudence should not be based upon hindsight, but upon a reasonableness standard: [T]he company's conduct should be judged by asking whether the conduct was reasonable at the time, under all the circumstances, considering that the company had to solve its problem prospectively rather than in reliance on hindsight. In effect, our responsibility is to determine how reasonable people would have performed the tasks that confronted the company.

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

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

III. Fuel Costs, Purchased Power Costs, Net Emission Costs

GMO's FAC includes three major components of costs: fuel costs, purchased power costs, and net emission costs. It also includes two components of revenues: off-system sales revenues and renewable energy credit revenues. Table 2 is a breakdown of GMO's fuel costs,

⁷ See definition of variable I on GMO's P.S.C.MO. No. 1, 1st Revised Sheet No. 127.8.

purchased power costs, net emission costs, off-system sales revenues, and renewable energy credit revenues for the period of December 1, 2013 through May 31, 2015:

Table 2			
	GMO Costs or Revenues	Percentage of Component	Percentage of Total FC, PP, TC & E
Fuel Costs (FC)			
Coal ¹	\$ 139,218,958	95%	39%
Oil	\$ 3,383,877	2%	1%
Natural Gas	\$ 19,137,538	13%	5%
Landfill Gas	\$ 99,150	0%	0%
Gas Hedges	\$ 818,100	1%	0%
Steam Allocation	\$ (16,413,579)	-11%	-5%
Total FC	\$ 146,244,044	100%	41%
Purchased Power Costs (PP)			
Firm Long Term Contracts	\$ 23,214,468	11%	7%
Non-Firm Short Term Energy	\$ 177,307,255	87%	50%
Short Term Demand	\$ 2,310,000	1%	1%
Total PP	\$ 202,831,723	100%	57%
Transmission Costs (TC)	\$ 4,284,159	100%	1%
Net Emission Costs (E)	\$ 273,865	100%	0.08%
Total FC, PP, TC & E	\$ 353,633,790		100%
less Off-System Sales Revenues	\$ 16,303,810	100%	
less Renewable Energy Credit Revenues	\$ 8,757	0%	
Actual Net Energy Costs	\$ 337,321,223		
¹ Tire Derived Fuel costs of \$811,660 are included in the cost of coal.			

Table 3 is a breakdown of GMO's fuel costs, net emission allowance costs, purchased power costs, off-system sales revenue, and renewable energy credit revenue for the period of December 1, 2013 through May 31, 2015, separately for its MPS and L&P rate districts:

Table 3						
	MPS Costs or Revenues	Percentage of Component	Percentage of Total FC, PP, TC & E	L&P Costs or Revenues	Percentage of Component	Percentage of Total FC, PP, TC & E
Fuel Costs (FC)						
Coal ¹	\$ 98,581,717	91%	36%	\$ 40,637,241	108%	50%
Oil	\$ 1,629,282	1%	1%	\$ 1,754,595	5%	2%
Natural Gas	\$ 7,715,562	7%	3%	\$ 11,421,976	30%	14%
Landfill Gas	\$ -	0%	0%	\$ 99,150	0.26%	0.12%
Gas Hedges	\$ 818,100	1%	0.30%	\$ -	0%	0%
Steam Allocation	\$ -	0%	0%	\$ (16,413,579)	-44%	-20%
Total FC	\$ 108,744,661	100%	40%	\$ 37,499,383	100%	46%
Purchased Power Costs (PP)						
Firm Long Term Contracts	\$ 16,479,849	10%	6%	\$ 6,734,619	16%	8%
Non-Firm Short Term Energy	\$ 142,168,465	89%	52%	\$ 35,138,789	82%	43%
Short Term Demand	\$ 1,584,000	1%	1%	\$ 726,000	2%	1%
Total PP	\$ 160,232,315	100%	59%	\$ 42,599,408	100%	53%
Transmission Costs (TC)	\$ 3,554,162	100%	1%	\$ 729,996	100%	1%
Net Emission Costs (E)	\$ 180,298	100%	0.07%	\$ 93,568	100%	0.12%
Total FC, CPP, TC & E	\$ 272,711,436		100%	\$ 80,922,355		100%
less Off-System Sales Revenues	\$ 16,239,821	100%		\$ 63,989	100%	
less Renewable Energy Credit Revenues	\$ 6,874	100%		\$ 1,883	100%	
Actual Net Energy Costs	\$ 256,464,741			\$ 80,856,483		

¹ Tire Derived Fuel costs of \$639,840 for MPS and \$171,820 for L&P are included in the costs of coal.

A. Utilization of Generation Capacity

1. Description

GMO has enough base and peaking generation to meet its native load and reserve margin requirements, but it will purchase power based upon reliability and economic considerations. The following generating station units provided base load energy during the prudence review period: Sibley 1, 2, and 3; Lake Road 4; Jeffrey Energy Center 1, 2, and 3; Iatan 1 and 2. GMO's remaining units provided intermediate and peak energy and include Crossroads 1, 2, 3 and 4; Greenwood 1, 2, 3 and 4; Lake Road 1, 2, 3, 5, 6 and 7; Nevada 1; Ralph Green 3; South Harper 1, 2, and 3; and St. Joseph Light & Power Landfill Gas. Table 4 summarizes GMO's Generation Capacity⁸.

⁸ GMO IRP file no. EO-2015-0252, Table 16, Volume 1 page 25

Table 4
A Summary GMO's Generation Capacity

Unit	Commercial	Ownership	Partner	Type	Generating
	Date of	Percent	Operating	Unit Type, PM *	Net
Name	Operation			PM Fuel Type**	Capacity, MW
Sibley #1	1960	100	N/A	Base, ST, Bituminous, PRB Coal	50
Sibley #2	1962	100	N/A	Base, ST, Bituminous, PRB Coal	47
Sibley #3	1969	100	N/A	Base, ST, Bituminous, PRB Coal and TDF	364
Jeffrey #1	1978	8	Westar	Base, ST, PRB Coal	57
Jeffrey #2	1980	8	Westar	Base, ST, PRB Coal	57
Jeffrey #3	1983	8	Westar	Base, ST, PRB Coal	58
Iatan #1	1980	18	KCPL	Base, ST, PRB Coal	128
Iatan #2	2010	18	KCPL	Base, ST, PRB Coal	159
SJLP Landfill Gas	2012	100	N/A	Base, RGE, Methane Gas	2
Ralph Green #3	1981	100	N/A	Peaking, CT, Natural Gas	71
Greenwood #1	1975	100	N/A	Peaking, CT, Natural Gas	61
Greenwood #2	1975	100	N/A	Peaking, CT, Natural Gas	62
Greenwood #3	1977	100	N/A	Peaking, CT, Natural Gas	64
Greenwood #4	1979	100	N/A	Peaking, CT, Natural Gas	61
Crossroad #1	2002	100	N/A	Peaking, CT, Natural Gas	75
Crossroad #2	2002	100	N/A	Peaking, CT, Natural Gas	78
Crossroad #3	2002	100	N/A	Peaking, CT, Natural Gas	76
Crossroad #4	2002	100	N/A	Peaking, CT, Natural Gas	78
Nevada	1974	100	N/A	Peaking, CT, Fuel Oil	18
South Harper #1	2005	100	N/A	Peaking, CT, Natural Gas	101
South Harper #2	2005	100	N/A	Peaking, CT, Natural Gas	102
South Harper #3	2005	100	N/A	Peaking, CT, Natural Gas	100
Lake Road #1	1951	100	N/A	Peaking, ST, Bituminous Coal, Natural Gas	9
Lake Road #2	1957	100	N/A	Peaking, ST, Bituminous Coal, Natural Gas	19
Lake Road #3	1962	100	N/A	Peaking, ST, Bituminous Coal, Natural Gas	7
Lake Road #4	1967	100	N/A	Base, ST, Bituminous Coal, Natural Gas	96
Lake Road #5	1974	100	N/A	Peaking, CT, , Natural Gas	67
Lake Road #6	1989	100	N/A	Peaking, CT, , fuel oil	21
Lake Road #7	1990	100	N/A	Peaking, CT, fuel oil	21
Total Base Gen					1016
Total Peaking					1093
Total Generation					2109

* Prime Mover (PM); Steam Turbine (ST), Combustion Turbine (CT), (RGE) Reciprocating Gas Engine

** Powder River Basin (PRB) for NOx compliance

The normal economic dispatch (loading order) of each generating unit for the review period is as follows⁹:

1. Iatan 2(Joint Owner)
2. Iatan 1(Joint Owner)
3. Jeffrey Energy Center Units 1, 2 & 3 (Joint Owner)
4. Sibley 3 (100% PRB coal)
5. Lake Road 4 (100% PRB coal)
6. Sibley 1 & 2
7. South Harper 1, 2 & 3*
8. Greenwood Energy Center 1, 2, 3 & 4(Based on run times)*
9. Ralph Green 3*
10. Crossroads 1, 2, 3 & 4*
11. Lake Road 5
12. Lake Road 1, 2 & 3
13. Lake Road 6 & 7
14. Nevada

* The marginal operating costs of these generating facilities are all close in cost and, therefore, the dispatch order among them may vary from day-to-day based upon operating and market conditions.

There are no “forced” or “must run” generating units on the system; however, there are “must take” Unit Participation power agreements with Nebraska Public Power District (“NPPD”) for its Cooper Nuclear Station which ended on January 18, 2014, and with NextEra Energy Resources for the Gray County and Ensign Wind facilities.¹⁰ Operating reserve for the GMO system typically ranges from 25 to 50 MW, at least half of which is spinning reserve as maintained by the Southwest Power Pool (“SPP”), the Reliability Coordinator¹¹ for GMO. GMO is a member of SPP and is required to maintain a capacity margin of at least 12% of the projected summer peak load. GMO meets this requirement with its generation assets, capacity purchases, and Demand-Side Management (“DSM”) programs. SPP is the

⁹ Company Response to Data Request 0012.

¹⁰ Company Response to Data Request 0010.

¹¹ The Reliability Coordinator is responsible for the bulk transmission and power supply reliability within its designated area.

regional entity (“RE”) for the SPP region that has the primary responsibility for enforcing the North American Electric Reliability Corporation (“NERC”) approved reliability standards.

In the SPP Energy Imbalance Service market that was in place in the December 1, 2013 through February 28, 2014 timeframe, GMO would receive total system Operating Reserve requirements from Southwest Power Pool (SPP) on a daily basis. One half of these required Operating Reserves were required to be Spinning Reserves and GMO would assign Spinning Reserves (based upon SPP’s daily assigned number) on a daily and hourly basis to specific generators based upon multiple operational considerations. Starting March 1, 2014, the SPP Integrated Marketplace was implemented and GMO received Spinning Reserve obligations from SPP; however, the SPP Integrated Marketplace decides which units across the market footprint will actually carry the Spinning Reserves based upon each entity’s offer for this product and system topography. Per SPP Integrated Marketplace rules, GMO has a must offer obligation with respect to resource capacity and operating reserves, however, the SPP market now determines where to actually carry those reserves based on economics and various market operating conditions. These reserve requirements are described in the Southwest Power Pool Criteria document last dated April 28, 2015, under Criteria 6.0.¹²

There are several factors that go into SPP’s decision-making process to arrive at a satisfactory mix of supply-side resources to satisfy safety, reliability, and economic criteria. These criteria include, but are not limited to, transmission and distribution congestion, contingency scenarios that include the unexpected loss of generation and/or transmission and distribution, fuel supply interruptions, labor disputes, forecasted weather, fuel supply choices and tradeoffs of cost and performance vs. meeting environmental regulations, etc.

“Since March 1, 2014, SPP has used a Security Constrained Unit Commitment (SCUC) algorithm and a Security Constrained Economic Dispatch (SCED) algorithm to commit resources and subsequently clear, dispatch, and price Energy and Operating Reserves on a co-optimized basis that minimizes capacity costs and overall costs while enforcing multiple security constraints. Since March 1, 2014, SPP has re-determined the economic dispatch order for all units included in its Consolidated Balancing Authority and issued

¹² Company Response to Data Request 0011.

Dispatch Instructions for Energy and cleared Operating Reserves in the Real-Time Balancing Market every 5 minutes.”¹³

2. Summary of Cost Implications

Staff reviewed how GMO met its required load and reserve margin with its generation assets during the prudence review period. If GMO had been imprudently managing its generation capacity, *e.g.*, using its peaking units to serve base load demand, satisfying peak demand requirements with other than the least cost supply-side or demand-side resource available at the time, ratepayers could be harmed by increased fuel costs recovered through GMO’s FAC charges.

3. Conclusion

Staff found no indication that GMO imprudently dispatched its units or failed to select the lowest-cost resource available at the time of their peak load demand requirements during the review period and notes that since March 1, 2014, as discussed previously in this section, SPP has been responsible for these decisions.

4. Documents Reviewed

- a. 2015 GMO IRP File No. EO-2015-0252;
- b. Great Plains Energy 2014 Annual Report;
- c. SEC Form 10-K for the fiscal year ended December 31, 2014;
- d. GMO responses to Staff Data Request Nos. 0009.1, 0010, 0011, 0012, 0016, 0019, 0020, 0021, 0022, 0023, and 0032, issued in this case; and
- e. Monthly generation data GMO submitted in compliance with 4 CSR 240-3.190.

Staff Expert: John A. Rogers

B. Risk Management

1. Description

GMO’s risk management strategies encompass a wide range of activities. For the purpose of this prudence review, the Staff has reviewed GMO’s commodity, energy, and credit risk policies and procedures as they relate to GMO’s acquisition of fuel and purchased

¹³ Company Response to Data Request 0012

power. GMO's risk management strategies are directly controlled by the guidelines contained in its risk management policies.¹⁴

2. Background, Purpose, and Objectives of Policies to Manage Commodity Risk

GMO is exposed to risk associated with the acquisition of physical-based commodities, such as fuel, wholesale power, regulated assets, and transmission activities. Risk associated with these activities can threaten GMO's earnings, competitive position in the market, and expose GMO's customers to higher energy prices. GMO relies on *Great Plains Energy Incorporated Commodity Risk Controls Policy* ("Policy") as the controlling authority for managing its commodity risk. This document describes GMO's risk controls philosophy and objectives as:

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GMO also recognizes subordinate extensions of this *Policy* that implement control processes and limits. Staff has reviewed these other controlling policies and provides the following discussion.

¹⁴ Risk management documents; General Coal Purchasing Strategy; Natural Gas Price Hedge Plan, December 2010; Great Plains Energy Incorporated Commodity Credit Policy, Effective: December 18, 2012; Great Plains Energy Incorporated Commodity Credit Policy, Effective: August 26, 2013; Great Plains Energy Incorporated Commodity Credit Policy, Effective: January 21, 2015; Great Plains Energy Incorporated Commodity Risk Controls Policy, Effective: October 22, 2012; Great Plains Energy Incorporated Commodity Risk Controls Policy, Effective: March 15, 2014; Great Plains Energy Incorporated Commodity Risk Controls Policy, Effective: January 21, 2015; Great Plains Energy Incorporated Commodity Risk Controls Policy, Effective: July 8, 2015.

Commodity and Wholesale Credit Risk

What is credit risk? A definition of credit risk is provided for GMO in *Great Plains Energy Incorporated Commodity Credit Policy* as follows:

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GMO attempts to control credit risk by its adherence to the following policy statement:

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Energy Risk

Energy risk is the risk the utility experiences with the operation of its regulated assets, obligations and wholesale power, fuel and transmission transaction activities.

Energy Risk Policy is a subordinate extension policy of GMO's *Commodity Risk Policy* and adheres to the same philosophy and objectives as stated in its *Policy*. However, it goes further by assigning a detailed set of responsibilities and authorities to those persons chosen to carry out the administration of such risk management activities. The Board of Directors has the ultimate oversight responsibility for the actions of RMD employees while they are conducting the day-to-day administration of these policies. This *Policy* also sets specific guidelines related to the use of approved products, instruments, trade types, hedging strategies, and maximum contract terms.

3. Summary of Cost Implications

GMO employs risk management strategies in an attempt to mediate the market volatility risk of fuel and energy. A discussion related to hedging strategy employed and costs for the various applicable components is in the report under the Natural Gas Costs and Purchased Power Costs sections. If GMO did not manage its risk management strategies prudently, it could result in an increase in fuel costs and/or energy costs that are collected from customers through GMO's FAC charges.

4. Conclusion

Staff did not find GMO acted imprudently in the administration of its risk management strategies.

5. Documents Reviewed

- a. GMO's responses to Staff Data Request 0046; and
- b. GMO's filings in this case and FAC tariff sheets.

Staff Expert: Matthew J. Barnes

C. Purchased Power Hedging

As part of Staff's prudence review in File No. EO-2011-0390, Staff recommended an adjustment of approximately \$14 million that reflected net losses associated with GMO's use of New York Mercantile Exchange ("NYMEX")¹⁵ natural gas futures contracts in an attempt to mitigate spot purchased power energy price volatility ("cross hedging"). As a result of a hearing associated with prudence issues raised by Staff, the Commission issued a *Report and Order*¹⁶ on September 4, 2012. The Commission found:

The Commission's Staff has failed to provide substantial controverting evidence to rebut the presumption of the prudence of GMO's hedging practices. The Commission's Staff has failed to meet its burden, by a preponderance of the evidence, of proving the GMO was imprudent with its hedging practices during the prudence review period of June 1, 2009 through November 30, 2010. The Commission's Staff has failed to meet its burden, by a preponderance of the evidence, of proving GMO engaged in improper accounting practices in violation of the Accounting Authority Order from File Number ER-2005-0436. The Commission's Staff has failed to meet its

¹⁵ The New York Mercantile Exchange is a commodity futures exchange owned and operated by CME Group of Chicago, IL.

¹⁶ In the Matter of the Third Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of KCP&L Greater Missouri Operations Company, File No. EO-2011-0390, Report and Order.

burden, by a preponderance of the evidence, of proving that GMO violated the Uniform System of Accounts. The Commission's Staff has failed to meet its burden, by a preponderance of the evidence, of proving GMO violated its Fuel Adjustment Clause Tariff. All of Staff's allegations, and the relief sought by Staff, will be denied.

Also, as a result of File No. EO-2011-0390, the Commission found it was appropriate to open an investigatory docket, File No. EW-2013-0101, "to review policies or procedures with regard to electric companies' hedging programs that will hopefully assist the utilities with developing effective hedging programs that serve the public interest by mitigating the rising costs of fuel."¹⁷ The Staff filed its initial report in that file on April 8, 2013, and after further investigation filed an additional report on January 31, 2014. Staff reported it found the meetings with the investor-owned utilities to be productive but no broad agreement was reached between the parties. GMO responded to Staff's reports and agreed that informal annual meetings with Staff would allow for further discussions related to GMO's hedging activities and other risk mitigation strategies. On April 16, 2014, an order was issued by the Commission closing the investigatory docket.

For the review period GMO experienced \$804,029 in cash losses as a result of its cross-hedging activities. An additional \$14,071 in cash losses resulted from hedging activities related to the acquisition of natural gas used to produce electricity in its own generation facilities. Included in Table 6 are the results for the review period of GMO hedging practices as related to natural gas during the prudence review period.

¹⁷ In the Matter of a Working Docket to Address the Hedging Practices of Electric Utilities used to Mitigate the Rising Costs of Fuel (File No. EW-2013-0101)

Table 6
Purchased Power Hedging Results

	Projected Natural Gas Burn Converted to MMBtu For Own Generation	Projected Natural Gas MMBtu Equivalents for On Peak Purchased Power	Total
MMBtu Requirements	** _____ **	** _____ **	** _____ **
Percentage of MMBtu Requirements by type	** _____ **	** _____ **	** _____ **
Volume Actually Hedged (MMBtu)	** _____ **	** _____ **	** _____ **
Volume of Hedges Actual Used (MMBtu)	** _____ **	** _____ **	** _____ **
Volume of Hedges Not Used (MMBtu)	** _____ **	** _____ **	** _____ **
Percent of Hedges Not Used	** _____ **	** _____ **	** _____ **
Net Gains/(Losses) from Hedging Activities	** _____ **	** _____ **	** _____ **
Percent of Losses by activity	** _____ **	** _____ **	** _____ **

2. Summary of Cost Implication

If GMO was imprudent in its hedging practices, ratepayer harm could result from an increase in the hedging costs that are collected through GMO's FAC charges.

3. Conclusion

GMO continues to experience cash losses associated with its hedging activities. In File No. EO-2011-0390, the Commission found that Staff was unable to provide substantial controverting evidence to rebut the presumption of the prudence of GMO's hedging practices. Staff's current prudence review has found only similar evidence. Therefore, although Staff continues to have concerns related to GMO's "cross hedging" on-peak energy prices with NYMEX natural gas futures contracts, Staff is not recommending an adjustment in this prudence review.

4. Documents Reviewed

- a. GMO's responses to Staff Data Requests 0058 and 0060; and
- b. GMO's filings in this case and FAC tariff sheets.

Staff Expert: Matthew J. Barnes and Dana E. Eaves

D. Plant Outages

1. Description

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

Outages taken at any of the generating units have an impact on how much GMO will pay for fuel and purchased power and have the potential result of GMO incurring more fuel and purchased power cost than is necessary. Periodic planned outages are required to maintain generation units in peak operating condition in order to avoid forced or maintenance outages that could occur during periods of peak load demand and high replacement energy costs, typically in the summer months of June through August. The Company has little or no control over maintenance or forced outages of the generating stations it owns or operates as a result of unforeseen events. The Company has no control over the timing of outages for

generating stations that it does not operate, and, therefore, these units are excluded from Staff's review of planned outages.

As an example, planned outage intervals typically occur every 12 to 24 months for boiler work and every 6 to 10 years for turbine work. When a base load unit is taken out of service, the Company typically experiences increased purchased power and fuel expenditures associated with the replacement power that are recovered through the FAC. Staff examined GMO's planned outages and the timing of these outages to determine if these outages were prudently taken. Staff determined that the planned outages that did occur during the review period were prudently planned to occur during the spring or the fall. An example of an imprudent outage would be scheduling a planned outage of a large base loaded coal unit during what are normally peak load demand times.

2. Summary of Cost Implications

An imprudent outage could result in GMO purchasing expensive spot market power or running its more expensive gas units to meet demand, thereby causing the Company to incur higher fuel costs than it would otherwise have incurred. If GMO was imprudent when it incurred its plant outages, ratepayer harm could result from an increase in the fuel costs that are collected through GMO's FAC charges.

3. Conclusion

Staff found no indication that GMO's plant outages were imprudent during the review period.

4. Documents Reviewed

- a. GMO responses to Staff Data Request Nos. 0004, 0005 and 0006; and
- b. Monthly Outage data submitted by GMO in compliance with 4 CSR 240-3.190.

Staff Expert: John A. Rogers

E. Natural Gas Costs

1. Description

For the prudence review period, \$19,137,538 or 5% of GMO's total fuel costs, cost of purchased power, transmission costs, and net emission costs was associated with the natural gas used in generating electricity. Not included in this amount is the net loss of \$818,100 associated with its natural gas hedging activities. The cost of natural gas includes

various miscellaneous charges such as firm transportation service charges and other fuel handling expenses. Staff reviewed 17 gas supply contracts and 5 gas transportation contracts. The counterparties for the contracts are:

Gas Supply Contracts

** _____ **

** _____ **

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** _____ **

Gas Transportation Contracts

** _____

_____ **

Crossroads 1, 2, 3, and 4;
Greenwood 1, 2, 3, and 4;
Lake Road 1, 2, 3, and 5.
Nevada 1;
Ralph Green 3; and
South Harper 1, 2, and 3.

Fracking, or hydraulic fracturing, is the process of extracting natural gas from shale rock layers deep within the earth. Fracking makes it possible to produce natural gas extraction in shale plays that were once unreachable with conventional technologies. Recent advancements in drilling technology have led to new man-made hydraulic fractures in shale plays that were once not available for exploration. In fact, three dimensional imaging helps scientists determine the precise locations for drilling.

Horizontal drilling (along with traditional vertical drilling) allows for the injection of highly pressurized fracking fluids into the shale area. This creates new channels within the rock from which natural gas is extracted at higher than traditional rates. This drilling process can take up to a month, while the drilling teams delve more than a mile into the Earth's surface. After which, the well is cased with cement to ensure groundwater protection, and the shale is hydraulically fractured with water and other fracking fluids.¹⁸

NP

2. Summary of Cost Implications

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

3. Conclusion

Staff found no indication GMO's purchases of natural gas were imprudent during the review period.

4. Documents Reviewed

- a. GMO's responses to Staff Data Request Nos. 0001, 0002, 0024, and 0027; and
- b. GMO's General Ledger, FAC calculation, and other work papers from this case to determine the amount that GMO paid for natural gas as compared to the total cost of natural gas that GMO incurred during the review period.

Staff Expert: Matthew J. Barnes

F. Coal and Rail Transportation Costs

1. Description

For the prudency review period, \$139,218,958 or 39% of GMO's total fuel costs, cost of purchased power, transmission costs, and net emission costs was associated with the coal used in generating electricity. The cost of coal includes various miscellaneous charges such as rail and other ground transportation service charges, and other fuel handling expenses. Staff reviewed 18 short- and long-term coal purchase contracts, 4 rail transportation contracts, 3 rail storage contracts, and 3 maintenance contracts. The counterparties for all the contracts are:

Coal Purchase Contracts

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** _____ **
** _____ **
** _____ **
** _____ **
** _____ **
** _____ **

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** _____ **

Rail Transportation Contracts

** _____ **

** _____ **

** _____ **

** _____ **

Rail Lease Contracts – To KCPL

** _____ **

** _____ **

** _____ **

Railcar Storage Contracts

** _____ **

** _____ **

** _____ **

Maintenance Contracts

** _____ **

** _____ **

** _____ **

The contracts provide coal delivery to GMO's Jeffrey Energy Center 1, 2, and 3; Sibley 1, 2, and 3; and Lake Road generating units. The price of coal can either be a fixed price for the entire contract, a fixed price for each year of the contract, a base price plus an escalation as calculated per the contract, a price determined by the Master Purchase & Sales Agreement, or a price which is indexed based.

2. Summary of Cost Implications

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

3. Conclusion

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

4. Documents Reviewed

- a. GMO's fixed coal contracts in place for the delivery of coal to each of its generating units;
- b. GMO's responses to Staff Data Request Nos. 0002, 0003, and 0024; and
- c. GMO's General Ledger, FAR calculations, and other work papers to determine the amount that GMO paid for coal as compared to the total cost of coal that GMO incurred during its fourteenth, fifteenth and sixteenth accumulation periods.

Staff Expert: Matthew J. Barnes

G. Fuel Oil Costs

1. Description

For the prudency review period, \$3,383,877 or 1% of GMO's total fuel costs, cost of purchased power, transmission costs, and net emission costs was associated with the fuel oil used in generating electricity. The cost of fuel oil includes various miscellaneous charges, such as rail and/or ground transportation service charges and other miscellaneous fuel handling expenses. Staff reviewed GMO's 3 oil contracts that were in place during the review period. The contracts provide a primary delivery location and agreement on the price. The price is based on the market price at the time GMO purchases the fuel oil. The counterparties for the fuel oil contracts are:

** _____ **
** _____ ** and
** _____ **

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

2. Summary of Cost Implications

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

3. Conclusion

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

4. Documents Reviewed

- a. GMO's General Ledger;
- b. GMO's responses to Staff Data Request Nos. 0002, 0003, and 0024; and
- c. FAR and other supporting work papers in this case to determine the amount GMO paid for fuel oil as compared to the total cost of fuel oil GMO incurred during the review period.

Staff Expert: Matthew J. Barnes

H. Transmission Costs

1. Description

For the prudency review period, \$4,284,159 or 1% of GMO's total fuel cost, cost of purchased power, transmission costs and net emission costs was associated with transmission costs. GMO's FAC 2nd Revised Sheet No. 126, effective January 26, 2013, and thereafter, defines the "TC" component as:

- TC = Transmission Costs:
 - o The following costs reflected in FERC Account Number 565 (excluding Base Plan Funding costs and costs associated with the Crossroads generating station): transmission costs that are necessary to receive purchased power to serve native load and transmission costs that are necessary to make off system sales.

2. Summary of Cost Implications

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

3. Conclusion

Staff found no indication GMO's transmission costs were imprudent during the review period.

4. Documents Reviewed

- a. GMO's General Ledger;
- b. GMO's responses to Staff Data Request Nos. 0001 and 0002; and

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

Staff Expert: Matthew J. Barnes

I. SO₂ Allowances

1. Description

The U.S. Sulfur Dioxide (“SO₂”) Emission Allowance Trading Program was established by Title IV of the 1990 Clean Air Act Amendments (“CAAA”). The program is intended to reduce environmental and human health impacts associated with the release of sulfur emissions from coal-fired electric power plants. CAAA requires electric utilities to reduce their SO₂ emissions, or purchase allowances, to meet this standard. The program is phased in, with the final SO₂ cap set at about 50% from 1980 levels by 2010.

Under the CAAA, power plants are allocated a 30-year stream of tradable allowances, each worth one ton of SO₂. The allocation of allowances is based on an average capacity factor from the period 1985 to 1987. Allowances are awarded by the United States Environmental Protection Agency (“EPA”) every year, and are designated by vintage year. The vintage year denotes the first year the allowances may be used for compliance. Unused allowances can be sold or banked for use in subsequent years.

The EPA’s Clean Air Interstate Rule (“CAIR”), issued in 2005, was established to address the transport of pollutants from upwind states to downwind states. States in the eastern half of the country were required, over the compliance period (2009-2015), to participate in a federal program intended to reduce emissions of sulfur dioxide (“SO₂”) by 57% from 2003 levels and Nitrogen Oxides (“NO_x”) by 61% from 2003 levels.

A December 2008 court decision kept the requirements of CAIR in place temporarily, but directed EPA to issue a new rule to implement the Clean Air Act requirements concerning the transport of air pollution across state boundaries. The Cross-State Air Pollution Rule (CSAPR) was designed to implement these Clean Air Act requirements and respond to the court's concerns. In 2011, the EPA finalized the CSAPR that regulates power plant emissions of SO₂, NO_x, ozone and fine particulates. The CSAPR took effect January 1, 2015.

The requirements of CAIR were in effect for the first thirteen months of review period from December 1, 2013 through December 31, 2014. The requirements of CSAPR were in effect during the last five months of the review period, from January 1, 2015 through

May 31, 2015. Although the requirements of both CAIR and CSAPR were in effect at different times during the prudence review period, only CSAPR requirements will affect future accumulation periods.

The primary mechanism of CAIR and CSAPR is a cap-and-trade program that allows a major source of NO_x and/or SO₂ to trade excess allowances when its emissions of a specific pollutant fall below its cap for that pollutant. EPA issued a model cap-and-trade program for power plants, which could have been used by states as the primary control mechanism under CAIR. Under CAIR, starting in 2010, owners of power plants are required to submit two SO₂ allowances for each ton of SO₂ emitted. This ratio is further tightened in 2015 to 2.86 SO₂ allowances for each ton of SO₂ emitted.

Since the 1980's, the Sibley and Lake Road plants' generating capacities have more than doubled; Iatan 1 had a slight increase in generating capacity, while the Jeffrey Energy Center had a slight decrease in generating capacity. In addition, GMO's purchased power contract with the Nebraska Public Power District's Gerald Gentleman power plant requires GMO to provide SO₂ allowances to Nebraska Public Power for the energy purchased under contract. This contract was affective from January 1, 2005 through December 31, 2013. Costs for allowances from the final month of the contract are included in the review period. The net effect is that GMO does not have enough allowances to cover its SO₂ emissions requirements, and must purchase SO₂ allowances.

To comply with CAIR, and later CSAPR, GMO established an SO₂ inventory. This inventory is tracked in Company account 158.100 Emissions Allowance Inventory, and the cost for SO₂ allowances is tracked in FERC Account Number 509. The Company annually balances account 509 when the EPA yearly awards the additional SO₂ allowances.

For the 18 months of the prudence review period ending May 31, 2015, GMO's net emission allowance expense was \$273,865.

2. Summary of Cost Implications

If GMO imprudently used, purchased or banked its SO₂ allowances, ratepayer harm could result from an increase in GMO's FAC charges.

3. Conclusion

Staff found no indication GMO was imprudent in its purchases, banking, or usage of CAIR SO₂ allowances.

4. Documents Reviewed

- a. Company response to Staff's Data Request Nos. 0002, 0034, 0036, 0037, and 0038; and
- b. GMO monthly reports for the time period December 1, 2013 through May 31, 2015, required by 4 CSR 240-3.161(7).

Staff Expert: David Roos

J. Tire-Derived Fuel

1. Description

At GMO's Sibley Generating Station, which has cyclone-fired boilers, one type of alternative fuel was burned during the prudence review period—tire-derived fuel ("TDF"). Sibley Unit 3 has been burning TDF since 1997, and TDF is considered part of the normal fuel supply. TDF is a higher energy value fuel than the bituminous coal used at Sibley. TDF increases the overall heat input to the boiler. Cyclone-fired units require a certain amount of ash content in the fuel to maintain a slag layer in the cyclone unit. TDF is low in ash, and, therefore, the amount of TDF that can be blended with coal is limited. The cost of TDF includes material, transportation, labor, and equipment for material handling at the plant, including personnel to manage and load TDF during normal weekday hours.

At Unit 4/6 of the Lake Road Generating Station, TDF is the only type of alternative fuel that was burned during the prudence review period. Lake Road Unit 4/6 has been burning TDF since 2004.

During the prudence review period GMO's tire-derived fuel expense used for generation was \$811,660. This cost is included in the cost of coal in Tables 2 and 3.

2. Summary of Cost Implications

If GMO's use of tire-derived fuels was imprudent, ratepayer harm could result from an increase in FAC charges.

3. Conclusion

Staff found no indication GMO's use of tire-derived fuels were imprudent during the review period.

4. Documents Reviewed.

Company response to Staff's Data Request Nos. 0001 and 0043.

Staff Expert: Matthew J. Barnes

K. Off-System Sales Revenue

1. Description

Off-system sales revenues ("OSSR") are a component in the calculation of GMO's FAR used to charge or refund fuel and purchased power costs to its customers. The tariff language in effect during the review period includes:

GMO's FAC 2nd Revised Sheet No. 126, effective January 26, 2013, and thereafter, defines the "OSSR" component as:

- OSSR = Revenues from Off-system Sales:
 - o The following revenues or costs reflected in FERC Account Number 447: all revenues from off-system sales but excluding revenues from full and partial requirements sales to Missouri municipalities that are associated with GMO, hedging costs, SPP EIS market charges, and SPP Integrated Market revenues.

Staff reviewed the off-system sales quantities and revenues over the prudence review period, and GMO's off-system sales revenue amount is \$16,303,810.

2. Summary of Cost Implications

GMO's revenues from off-system sales are an offset against total fuel and purchased power costs, transmission costs and net emission costs. This is because GMO's ratepayers pay for the resources used for any energy that GMO sells.¹⁹ If GMO did not make available its generating units in the SPP market for off-system sales to be made, ratepayers could be harmed by such imprudence by an increase in GMO's FAC charges²⁰.

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

²⁰ Beginning March 1, 2014 the SPP implemented the Integrated Marketplace that changed GMO's practice of making off-system sales. See the Utilization of Generation Capacity section above.

3. Conclusion

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

4. Documents Reviewed

- a. GMO's responses to Staff Data Request Nos. 0001 and 0002; and
- b. GMO's filings in this case and FAC tariff sheets.

Staff Expert: Matthew J. Barnes

L. MPower Rider and Energy Optimizer/Demand Response Programs

1. Description

There are two existing demand response programs that GMO had available during the reporting period to curtail GMO's load during the summer months when peak electric demand occurs. MPower is a voluntary load curtailment program for large commercial and industrial customers and provides a payment to customers for curtailing their load when requested to do so by GMO. Energy Optimizer is an air conditioning cycling program for residential and small commercial customers that allows the Company to cycle program participants' air conditioners off and on when the Company-provided thermostats receive a paging signal from GMO. These programs are designed to reduce customer load during peak periods to help defer future generation capacity additions and provide for additional capacity margin improvements in the energy supply.

On December 22, 2011, GMO filed a Missouri Energy Efficiency and Investment Act ("MEEIA") application for approval of fifteen (15) DSM programs, including the MPower and Energy Optimizer programs. A stipulation and agreement for GMO's MEEIA filing was filed in File No. EO-2012-0009 on October 29, 2012, and the Commission issued an order approving the stipulation and agreement on November 15, 2012. The demand response programs are described in the 10th revision of Electric Tariff Schedule No. 1; Tariff Sheet No. R-63.09 for the Energy Optimizer Program; and Tariff Sheet No. R-63.22 for the MPower program.

2. Demand-Side Program Discussion

Staff has reviewed GMO's records and promotional/marketing materials for its MPower and Energy Optimizer programs. Staff believes that demand response is a valuable

resource and should always be considered as one of the options to reduce the peak loading and thereby reduce the amount of generation and purchased power required to serve the native load. As a result of market fundamentals in SPP, GMO may acquire capacity in the open market at a lower price than through the MPower program.

In addition, there are additional factors and considerations that include reliability, contingency planning and scenarios, reserve requirements, NERC/SPP guidelines, and transmission congestion that impact the decision on the optimum mix of resources to utilize to meet the peak demand.

3. Summary of Cost Implications

Although Staff understands the current economic conditions and reduced load have generally depressed capacity prices and utilizing demand response may not be the least cost option for every peak load situation, these conditions can change. A robust MPower and Energy Optimizer program will position GMO to have these demand response options available to select the least-cost option when GMO meets its reliability requirements, to satisfy peak load conditions for the benefit of all its customers.

During the review period, GMO called no curtailment events.²¹

4. Conclusion

Staff's review did not find any imprudence with respect to GMO's decision process to not utilize the MPower demand response program to meet peak demand during the review period.

5. Documents Reviewed

- a. GMO's responses to Staff Data Requests Nos. 0044 and 0045;
- b. Order Approving Stipulation and Agreement for GMO's MEEIA Filing No. EO-2012-0009;
- d. GMO's filings in this case and FAC tariff sheets; and
- e. GMO MEEIA Filing No. EO-2012-0009.

Staff Expert: John A. Rogers

²¹ Company Response to Data Request 0045.

M. C.W. Mining Cost

1. Description

This issue involves any settlement payments for a breached coal contract between GMO and C.W. Mining, and the effect any settlement payments may have on FAC-related costs. A detailed description of this issue is provided in Staff's prudence review report for GMO in File No. EO-2009-0115. The following is a brief summary of the events related to this issue.

GMO entered into a coal supply contract with C.W. Mining in January 2004 to supply coal for the Sibley and Lake Road generating stations. In the early portion of the contract, C.W. Mining was unable to supply the contracted quantity of coal, ultimately breaching the contract. This resulted in GMO having to burn higher cost coal at these two generating stations. GMO is currently involved in litigation to recover the higher costs that it incurred as a result of the termination of the C.W. Mining coal contract.

The *Stipulation and Agreement as to Certain Issues* the Commission approved by its *Order Approving Stipulation and Agreement as to Certain Issues* in Case No. ER-2007-0004, effective on April 22, 2007, stated that settlement payments, net of certain GMO costs, were to flow back to customers through GMO's FAC if the Commission granted GMO a FAC. Since the Commission approved GMO's FAC with its *Report and Order* in Case No. ER-2007-0004, customers are to receive 95% of the C.W. Mining litigation proceeds, net of applicable legal and collection fees and costs as agreed to in the *Stipulation and Agreement as to Certain Issues*.

No garnishments or settlements from C.W. Mining have flowed through GMO's FAC as of May 31, 2015. Once all legal expenses have been recovered, 95% of any future settlements received will be refunded to customers through GMO's FAC.

2. Summary of Cost Implications

There are no cost implications to GMO's FAC from the C.W. Mining litigation during the 18-month period ending November 30, 2013. Since the C.W. Mining contract was set up to provide coal to both the Sibley and Lake Road stations, Staff recommended in a previous FAC Prudence Review Report (Case No. EO-2009-0115), and GMO concurred in its response to Staff Data Request 0055 in Case No. EO-2009-0115, that any net settlement payments be

split: 81% for ratepayers in the MPS rate district and 19% for ratepayers in the L&P rate district. If GMO were to imprudently flow the C.W. Mining settlements through its FAC, or did not flow them through its FAC, ratepayer harm could result from the ratepayers not receiving any of the benefit from the net settlement payments.

3. Conclusion

Staff found no indication that GMO has acted imprudently regarding the C.W. Mining settlements with respect to its FAC. Staff will continue to monitor this issue in future GMO FAC prudence audits. If GMO receives any future settlement proceeds, the appropriate allocation of the settlement amount between MPS and L&P rate districts will be reviewed at the time the settlement proceeds are flowed through GMO's FAC.

4. Documents Reviewed

- a. Direct Testimony of Staff witness Cary Featherstone in Case No. ER-2007-0004;
- b. *Stipulation and Agreement as to Certain Issues* filed April 4, 2007, in Case No.ER-2007-0004;
- c. *Order Approving Stipulation and Agreement as to Certain Issues* entered in Case No. ER-2007-0004, effective April 27, 2007;
- d. GMO Monthly and Quarterly Reports submitted in compliance to 4 CSR 240-3.161(5) and (6); and
- e. GMO responses to Staff Data Request No. 0042.

Staff Expert: David C. Roos

N. Renewable Energy Credit Purchases and Revenues

1. Description

The Missouri Renewable Energy Standard ("RES")²² was adopted through a voters' ballot initiative (Proposition C) on November 4, 2008,²³ and requires all investor-owned electric utilities in Missouri to provide at least two percent (2%) of their retail electricity sales using renewable energy resources in each calendar year 2011 through 2013, and to increase

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

²³ § 393.1030, RSMo. Supp. 2013.

that percentage over time to at least fifteen percent (15%) by 2021.²⁴ Commission rule 4 CSR 240-20.100, which first became effective September 30, 2010, contains the definitions, structure, operations, and procedures for implementing the RES.

The RES rule creates two categories of energy-generating resources: non-renewable energy resources (including purchased power from non-renewable energy sources) and renewable energy resources (including purchased power from renewable energy sources).²⁵ Renewable energy resources produce electrical energy and are wind, solar sources, thermal sources, hydroelectric sources, photovoltaic cells and panels, fuel cells using hydrogen produced by one (1) of the above named electrical energy sources, and other sources of energy that become available after August 28, 2007, and are certified as renewable by the Missouri Department of Economic Development -- Division of Energy ("Division of Energy"). Once an energy resource is certified, it begins producing RECs, with one (1) REC representing one (1) megawatt-hour of electricity that has been generated from the renewable energy resource. These credits can be sold and/or traded in the market place bundled with or without the energy that generated the REC.²⁶ The cost of a REC (as a RES compliance cost) cannot be recovered through the FAC.²⁷ Revenues from the sale of RECs are recovered through the FAC as an off-set to fuel costs.

During the review period, GMO ** _____ ** and received non-solar RECs bundled with renewable energy from GMO's St. Joseph Landfill Gas Facility, and contractually through purchased power agreements with two renewable energy providers (Gray County and Ensign wind farms). Some of the RECs created by generation at Gray County and Ensign wind farms and the St. Joseph Landfill Gas Facility were used for 2013, 2014 and 2015 RES compliance. Some non-solar RECs were sold in December 2013 and recorded in Account 509000 as required by GMO's tariff. In Account 509000 the amount of \$8,757 of REC revenue was used as an offset net emission costs. Because the REC revenues

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

²⁵ 4 CSR 240-20.100(5)(B).

²⁶ 4 CSR 240-20.100(6)(B)(5)(J).

²⁷ 4 CSR 240-20.100(6)(A)(16).

were used as an offset, GMO's work papers do not itemize the REC revenues as a separate line item. As a result of Staff's discussions with GMO, GMO has agreed to report REC revenues as a separate line item in its supporting work papers beginning with the January 2016 monthly report. In Account 509000, no costs for purchasing the solar RECs were recovered through the FAC during the review period.

In Staff Data Request No. 0053, Staff requested "the dollar values assigned to RECs from energy purchases from Ensign Wind Farms accrued for the period December 1, 2013 through May 31, 2015, and included in calculating GMO's Fuel Adjustment Clause charges... ." GMO's responded, ** _____

_____ ** In Staff Data Request No. 0052, Staff requested the same information regarding Gray County and GMO provided a similar response, stating, ** _____

_____ **

2. Summary of Cost Implications:

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

3. Conclusion

With regards to FAC prudence, Staff did not find evidence that GMO's management of its RECs during the review period was imprudent.

4. Documents Reviewed

- a. Staff Data Request Nos. 0049 through 0054; and
- b. GMO 2013 and 2014 Annual Renewable Energy Standard Compliance Reports.

Staff Expert: David Roos

O. St Joseph Landfill Gas Facility

1. Description

GMO constructed a landfill gas generating plant at the St. Joseph city landfill. The St. Joseph Landfill Gas Facility consists of one (1) reciprocating internal combustion engine and associated generator, rated at a nominal one and six-tenths (1.6) MW. Landfill gas is extracted from wells in the landfill and supplied to the engine. This gas contains approximately fifty percent (50%) methane. The generator connects to the GMO distribution system through an on-site step-up transformer. Division of Energy certified the St. Joseph Landfill Gas Facility as a renewable energy resource on August 3, 2012. The plant satisfies the relevant Missouri statutes and regulations to qualify as a renewable energy resource located within the State of Missouri and, therefore, GMO receives one and twenty-five hundredths (1.25) credit for each MW generated available for in-state facilities.

Based on Staff's on-site observation of the facility, supplemented by review of test records and operating logs, Staff concluded that the generating unit has successfully met all of the in-service criteria and was fully operational and used for service by March 30, 2012.

The St. Joseph Landfill Gas Facility was deemed in-service March 30, 2012, by the Commission, at which time landfill gas fuel costs for it began to flow through GMO's FAC. Landfill gas costs that were included in the 18-month review period ending May 31, 2015 are \$99,150.

On December 21, 2012, GMO filed in Case Nos. ER-2012-0175 and ER-2013-0341 an *Application for Waiver or Variance of 4 CSR 240-20.100(6)(A)16. for St. Joseph Landfill Gas Facility and Motion for Expedited Treatment*. Rule 4 CSR 240-20.100(6)(A)16. provides that RES compliance costs may only be recovered through a Renewable Energy Standard Rate Adjustment Mechanism ("RESRAM") or as part of a general rate proceeding, but not through a fuel adjustment clause. On December 28, 2012, Staff filed *Staff's Response to KCP&L Greater Missouri Operations Company's Application for Waiver or Variance of 4 CSR 240-20.100(6)(A)16. for St. Joseph Landfill Gas Facility*. In its response, Staff expressed that it did not oppose GMO's application for waiver because of GMO's commitment to work with the parties to resolve these issues before GMO files its next general electric rate case.

On January 3, 2013, the Commission issued an *Order Granting Waiver* with an effective date of January 4, 2013, granting GMO relief from Commission Rule 4 CSR 240-20.100(6)(A)16. for purposes of Case Nos. ER-2012-0175 and ER-2013-0341, allowing GMO to temporarily flow its St. Joseph Landfill Gas Facility's gas fuel costs through its FAC rather than through a RESRAM or as part of a general rate proceeding. This allows GMO to recover RES compliance costs from the *St. Joseph Landfill Gas Facility* through its FAC. Paragraph 5, on Page 3, of GMO's application for the waiver requests that the words "landfill gas" be included in its tariff sheet implementing the relief. The tariff the Commission approved in GMO's rate case where it granted the relief includes the words "landfill gas."

The relief the Commission granted is a temporary fix that allows time for all interested parties to attempt to come to agreement on a solution that complies with the Commission Rules. Based on the Commission's approval of GMO's request for relief from Commission Rule 4 CSR 240-20.100(6)(A)16., Staff will continue to work with GMO to reach a resolution concerning the treatment of the costs of landfill gas purchased for the Company's St. Joseph Landfill Gas Facility.

2. Summary of Cost Implications

If GMO's use of the FAC to recover RES compliance costs was imprudent, ratepayer harm could result from an increase in FAC charges.

3. Conclusion

The Commission granted a waiver to GMO that provides relief from Commission Rule 4 CSR 240-20.100(6)(A)16. that includes the audited period so that GMO can recover RES compliance costs from the *St. Joseph Landfill Gas Facility* through its FAC for this December 1, 2013 through May 31, 2015 audit period. Staff has found no indication that GMO has acted imprudently regarding the St. Joseph Landfill Gas Facility with respect to its FAC. Staff will continue to monitor this issue in future GMO FAC prudence audits.

4. Documents Reviewed

- a. Staff Data Request No. 0051;
- b. Staff Recommendation in File No. ER-2012-0175; and
- c. Waiver filings in File No. ER-2012-0175.

Staff Expert: David Roos

P. Gray County Wind Purchased Power Agreement

1. Description

GMO has a long-term (15-year) Purchased Power Agreement (“PPA”) with NextEra Energy Resources for energy and RECs generated by the Gray County Wind Farm located in Kansas. The contract is based on ** _____ ** of capacity that GMO (then known as Aquila, Inc.) began receiving in 2001. The Division of Energy certified the Gray County Wind farm as a renewable energy resource on November 23, 2011. During the review period, GMO retired some Gray County wind farm RECs to comply with RES requirements. The contract is a “take-or pay” contract (i.e., GMO has to receive and pay for the energy whether it needs the energy or not), which is a standard feature of many wind PPAs. The contract is for the energy and RECs generated by the wind farm. In its response to Staff Data Request No. 0051 GMO stated, ** _____

_____ ** Costs for purchasing the electricity under the Gray County Wind PPA are ** _____ ** for December 1, 2013 through May 31, 2015 .

2. Summary of Cost Implications

If GMO imprudently included RES compliance costs in its FAC calculations, resulting in increases to the Company’s FARs, ratepayer harm could result from an increase in FAC charges.

3. Conclusions

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

4. Documents Reviewed

- a. Staff Data Request Nos. 0002, 0049, 0050, and 0051;
- b. GMO 2013 Annual Renewable Energy Standard Compliance Plan; and
- c. GMO 2014 Annual Renewable Energy Standard Compliance Plan.

Staff Expert: David Roos

Q. Ensign Wind Purchased Power Agreement

1. Description

The Division of Energy certified Ensign Wind Energy Center located in Kansas as a renewable energy resource on December 6, 2012. GMO has a long-term (20-year) PPA with NextEra Energy Resources for energy and RECs generated by the Ensign Wind Center beginning in November 2012. The contract is also a “take-or pay” contract for renewable wind energy and RECs and is based on a capacity of ** _____ ** During the prudence review period, GMO retired some Ensign Wind Energy Center RECs to comply with RES requirements. In its response to Staff Data Request No. 0050 GMO stated, ** _____

_____ ** Costs for purchasing the electricity under the Ensign Wind Center PPA are ** _____ ** for December 1, 2013 through May 31, 2015.

2. Summary of Cost Implications

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

3. Conclusions

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

4. Documents Reviewed

- a. Staff Data Request Nos. 0002, 0049, 0050, and 0051;
- b. GMO 2013 Annual Renewable Energy Standard Compliance Plan; and
- c. GMO 2014 Annual Renewable Energy Standard Compliance Plan.

Staff Expert: David Roos

R. Purchased Power Costs

1. Description

GMO’s FAC tariff 2nd Revised Sheet No. 125 through 2nd Revised Sheet No. 126, effective January 26, 2013, and thereafter, defines the Purchased Power Costs (“PP”) components as:

PP = Purchased Power Costs:

o The following costs or revenues reflected in FERC Account Number 555: purchased power costs, capacity charges for capacity purchases less than 12 months in duration, energy charges from capacity purchases of any duration, settlements, insurance recoveries, and subrogation recoveries for purchased power expenses, virtual energy charges, generating unit price adjustments, load/export charges, energy position charges, ancillary services including penalty and distribution charges, hedging costs, broker commissions, fees, and margins, SPP EIS market charges, and SPP Integrated Market charges.

Staff has determined GMO's total purchased power expense for the prudence review period, is \$202,831,723, as shown in Table 2. More detail for the cost of Purchased Power is shown in Table 5.

**

**This Table
Is Deemed
Highly Confidential
In Its Entirety**

**

GMO had four long term purchase power agreements in affect at the start of the review period: Nebraska Public Power District, Intercompany Purchases, WPE/Gray County and Ensign Wind.

Nebraska Public Power District

GMO had a ** _____ ** purchased power contract with the Nebraska Public Power District's Gerald Gentleman Station effective from January 1, 2005 through December 31, 2013. Costs of energy for the final month of the contract are included in the review period.

Intercompany Purchases

At certain times MPS will sell excess energy to L&P and at other certain times L&P will sell excess energy to MPS. The cost to purchase this energy is booked to Account 555. The revenue from the sale of energy is booked to Account 555.

WPE/Gray County and Ensign Wind

GMO had long-term purchased power contracts with two wind farms during the review period. A further description of these contracts can be found in sections N and O.

Non-firm Short Term Energy

GMO purchases hourly energy in SPP's Energy Imbalance Services ("EIS") market and after February 28, 2014, SPP's Integrated Market ("IM"). Since implementing the IM, SPP has controlled the economic dispatch of GMO's generation. During times that GMO's load exceeds GMO's generation, GMO becomes a net purchaser in the SPP market. These SPP market purchases are from other electric suppliers to help meet GMO's load during times of forced or planned plant outages and during times when the market price is below both the marginal cost of providing that energy from GMO's generating units and purchased power contracts. Costs for the EIS and IM purchases are included as "Non-Firm Short Term Energy" in Tables 2 and 5. Further discussion of GMO's participation in these markets can be found in Section A of this report.

Short Term Demand

Capacity charges for capacity purchases less than 12 months in duration are listed as Short-Term Demand on Tables 2 and 5.

2. Summary of Cost Implication

If GMO imprudently entered into firm long-term contracts or purchased non-firm short-term energy when the market price is above the marginal cost of providing energy from

GMO's generating units or purchased power contracts, ratepayer harm could result from an increase in costs collected through the FAC.

3. Conclusion

Staff found no indication of imprudence by GMO for purchasing short-term capacity, entering into long-term purchased power contracts, or participating in the SPP marketplace. Section A of this report provides further discussion of how GMO met its load requirement during the review period.

4. Documents Reviewed

- a. GMO's responses to Staff Data Requests 0003, 0012, 0020, 0021, and 0023 issued in this case; and
- b. Section A of this report.

Staff Expert: Matthew J. Barnes and David Roos

IV. Interest

1. Description

During each accumulation period, GMO is required to calculate a monthly interest amount based on GMO's short-term debt borrowing rate that is applied to the under-recovered or over-recovered fuel and purchased power costs. GMO's short-term debt rate is calculated using the daily one-month United States Dollar London Interbank Offered Rate ("LIBOR"), using the last previous actual rate for weekends and holidays or dates without an available LIBOR, and the Applicable Margin for Eurodollar Advances as defined in the Pricing Schedule of the current GMO Revolving Credit Agreement. A simple mathematical average of all the daily rates for the month is then computed. For the prudence review period, GMO's interest amount applied to the under-recovered or over-recovered fuel and purchased power costs were \$499,199 and \$152,485 for MPS and L&P, respectively. The interest amount is component "I" of GMO's FAC.

2. Summary of Interest Implications

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

3. Conclusion

Staff found no evidence GMO imprudently determined the monthly interest amount that was applied to the under-recovered or over-recovered fuel and purchased power costs.

4. Documents Reviewed

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

Staff Expert: Matthew J. Barnes

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Sixth Prudence)
Review of Costs Subject to the)
Commission-Approved Fuel Adjustment)
Clause of KCP&L Greater Missouri)
Operations Company)

File No. EO-2016-0053

AFFIDAVIT OF MATTHEW J. BARNES

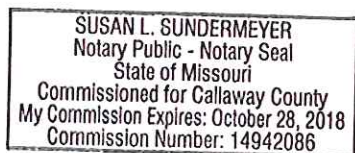
STATE OF MISSOURI)
) ss
COUNTY OF COLE)

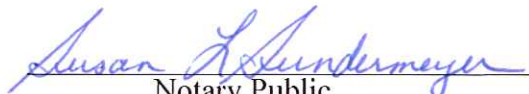
COMES NOW Matthew J. Barnes, and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached Prudence Report; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.


Matthew J. Barnes

Subscribed and sworn to before me this 29th day of February, 2016.




Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Sixth Prudence)
Review of Costs Subject to the)
Commission-Approved Fuel Adjustment)
Clause of KCP&L Greater Missouri)
Operations Company)

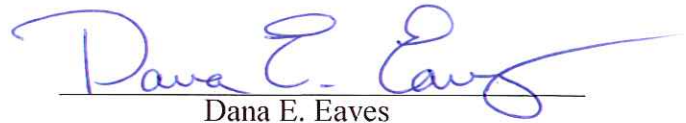
File No. EO-2016-0053

AFFIDAVIT OF DANA E. EAVES

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

COMES NOW Dana E. Eaves, and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached Prudence Report; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.


Dana E. Eaves

Subscribed and sworn to before me this 29th day of February, 2016.

SUSAN L. SUNDERMEYER Notary Public - Notary Seal State of Missouri Commissioned for Callaway County My Commission Expires: October 28, 2018 Commission Number: 14942086
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Notary Public

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Sixth Prudence)
Review of Costs Subject to the)
Commission-Approved Fuel Adjustment)
Clause of KCP&L Greater Missouri)
Operations Company)

File No. EO-2016-0053

AFFIDAVIT OF DAVID C. ROOS

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

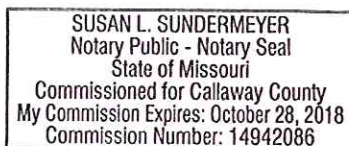
COMES NOW David C. Roos, and on his oath declares that he is of sound mind and lawful age; that he contributed to the attached Prudence Report; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.



David C. Roos

Subscribed and sworn to before me this 29th day of February, 2016.





Notary Public