PRUDENCE REVIEW OF COSTS RELATED TO THE FUEL ADJUSTMENT CLAUSE FOR THE ELECTRIC OPERATIONS OF THE EMPIRE DISTRICT ELECTRIC COMPANY

September 1, 2008 through August 31, 2009

MISSOURI PUBLIC SERVICE COMMISSION
STAFF REPORT

CASE NO. EO-2010-0084

Jefferson City, Missouri
February 26, 2010

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

NP

Table of Contents

Prudence Review of Costs Report

I. Executive Summary

The Missouri Public Service Commission (Commission) authorized a Fuel Adjustment Clause (FAC) for The Empire District Electric Company (Empire) in Case No. ER-2008-0093, its most recently completed general electric rate case.

Missouri statute, Section 386.266.4(4) RSMo (Supp. 2009), requires prudence reviews of an electric utility's FAC no less frequently than at eighteen-month intervals. In this prudence review, Staff analyzed items affecting Empire's total fuel and purchased power costs for the first two six-month accumulation periods of Empire's FAC. Thus, the period reviewed in this audit and documented in this report is from September 1, 2008 to August 31, 2009.

In evaluating decisional prudence, Staff reviews whether a reasonable person making the same decision would have found both the information the decision-maker relied on and the process the decision-maker employed reasonable, based on the circumstances at the time when the decision was made, i.e., without the benefit of hindsight. Staff disregards the decision actually made, and evaluates instead the decision-making process employed. If Staff determines the decision-making was imprudent, then Staff examines whether the imprudent decision caused any harm to ratepayers. Only if an imprudent decision resulted in harm to ratepayers, Staff will recommend a disallowance adjustment.

Staff analyzed a variety of items in examining whether Empire prudently incurred the fuel and purchased power costs associated with its FAC. Staff has found no evidence of decisional imprudence by Empire in the items it examined.

II. Introduction

A. General Description of Empire's FAC

The FAC approved by the Commission allows Empire to recover from its ratepayers ninety-five percent of its prudently incurred variable fuel and purchased power costs above a base amount. Fuel and purchased power costs accumulated during six-month accumulation periods are recovered during six-month recovery periods. Ninety-five percent (95%) of the actual fuel and purchased power costs relative to the base amount are flowed through to ratepayers by an increase or decrease in the Cost Adjustment Factor (CAF). Adjustments to the CAF are designed to offset that over- or under-recovery for a given accumulation period by the end of the six-month recovery period. Empire's FAC is also designed to true-up any over- or under recoveries during recovery periods. Any disallowance the Commission makes due to prudence reviews will be accounted for as a true-up item. Empire is expected to include its first true-up factor in its April 1, 2010 FAC filing.

Empire's first six-month accumulation period began on September 1, 2008 and ended February 28, 2009. Empire's fuel and purchased power costs were higher ($1,916.797) in the first accumulation period than the net base fuel and purchased power cost in Empire's FAC, so Empire's CAF's were adjusted to collect additional revenue effective June 1, 2009. The second accumulation period began March 1, 2009, and ended August 31, 2009. Empire's fuel and purchased power costs were lower ($820,443) in the second accumulation period than the net base fuel and purchased power cost in Empire's FAC so Empire's CAFs were adjusted to collect less revenue effective December 1, 2010. The table following reflects the changes to Empire's CAFs for its first two accumulation periods.

	Adjustment to Cost Adjustment Factor for 1st Accumulation Period	Adjustment to Cost Adjustment Factor for 2nd Accumulation Period
CAF - Primary and above Commercial and Industrial	$0.00085 per kWh	$-0.00039 per kWh
CAF - Secondary Residential	$0.00087 per kWh	$-0.00040 per kWh

The Staff reviewed for decisional prudence the areas listed below for Empire's first two accumulation periods

B. Prudence

1. Definition

The Commission has previously cited with approval a New York Public Service Commission statement regarding prudence:

> . . . the 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.[1]

2. Burden(s) of Convincing the Commission on the Issue of Prudence

In an October 2, 2007 Report and Order for Case Nos. GR-2003-0330 and GR-2002-348, the Commission wrote:

> The Commission established its prudence standard in a 1985 case involving the costs incurred by Union Electric Company in constructing its Callaway nuclear plant. In determining how much of those costs were to be included in Union Electric's rate base, the Commission adopted a standard for determining the prudence of costs that had been established by the United States Court of Appeals, District of Columbia, in a 1981 case. The standard adopted by the Commission recognizes that a utility's costs are presumed to be prudently incurred, and that a utility need not demonstrate in its case-in-chief that all expenditures are prudent. "However, where some other participant in the proceeding creates a serious doubt as to the prudence of an expenditure, then the applicant has the burden of dispelling those doubts and proving the questioned expenditures to have been prudent."
>
> The Commission, in the Union Electric case, further recognized that the prudence standard is not based on hindsight, but upon a reasonableness standard. The Commission cited with approval a statement of the New York Public Service Commission that:
>
> . . . the 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.
>
> Since its adoption, the Commission's prudence standard has been recognized by reviewing courts.

3. Basis for Disallowance

Imprudence alone is not treated as a basis for a disallowance. However, when imprudence is coupled with harm to a utility's ratepayers, then a prudence disallowance is appropriate. Staff has previously recommended prudence disallowances based on the following standard, as enunciated by the Commission in the area of natural gas local distribution company regulation:

---

[1] *In the Mater of the Determination of In-Service Criteria for the Union Electric Company's Nuclear Plant and Callaway Rate Base and Related Issues* and *In the Matter of Union Electric Company of St. Louis, Missouri, for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customer in the Missouri Service Area of the Company,* Case Nos. EO-85-17 and ER-85-160, March 29, 1985 *Report and Order*, 27 Mo.P.S.C.(N.S.) 183, 194 (1985), quoting *Consolidated Edison Company of New York, Inc.*, 45 P.U.R. 4th 331 (1982).

> ANG is not alone in suggesting that, in order to disallow a utility's recovery of costs from its ratepayers, a regulatory agency must find both that (1) the utility acted imprudently (2) such imprudence resulted in harm to the utility's ratepayers.

State ex rel. Associated Natural Gas Co. v. Public Service Com'n of State of Mo., 954 S.W.2d 520, 530 (Mo.App. W.D., 1997)

4. Quantification of Financial Impact

The Commission has required a quantification of the financial impact to ratepayers caused by an imprudent action. This standard has also been enunciated in the context of a natural gas local distribution company, as follows:

> A prudence review of this type must focus primarily on the cause(s) of the *allegedly excessive gas costs*. Put another way, the proponent of a gas cost adjustment must raise a serious doubt with the Commission as to the prudence of the decision (or failure to make a decision) that caused what the proponent views as *excessive gas costs*. ... In addition, evidence about the particular controversial expenditures is needed for the Commission to determine the amount of the adjustment. ... In addition, it is helpful for the Commission to have evidence as to the *amount that the expenditures would have been if the local distribution company had acted in a prudent manner*. The critical matter of proof is the prudence or imprudence of the decision from which expenses result. ... *The amount of the proposed adjustment must be based on excessive expenditures incurred during the particular ACA period involved*. (Emphasis added.)

Id.

III. Fuel and Purchased Power Costs

A. Explanation of Fuel and Purchased Power Costs

Fuel and purchased power costs for the purpose of Empire's FAC is comprised of four major components; Fuel, Purchased Power, Off-System Sales Margin and Net Emission Allowances.

B. Financial Hedges

1. Description

Financial hedges can be described as:

> Making an investment to reduce the risk of adverse price movements in an asset. Normally, a hedge consists of taking an offsetting position in a related security, such as a futures contract. An example of a hedge would be if you owned a stock, then sold a futures contract stating that you will sell your stock at a set price, therefore avoiding market fluctuations. Investors use this strategy when they are

unsure of what the market will do. A perfect hedge reduces your risk to nothing (except for the cost of the hedge).[2]

Staff has reviewed Empire's activities to hedge against the fluctuations of natural gas prices.

2. Summary of Cost Implications

Empire employs hedging activities in an attempt to mitigate the impacts of market swings in natural gas prices.

3. Empire's Natural Gas Hedging Policy

The treatment of natural gas hedging costs for Empire's FAC is detailed in Empire's Risk Management Policy (RMP) dated November 12, 2008:

> Section 4, page 11-12; The electric segment's specific hedge strategy goals are to provide for predictable fuel and purchased power costs over a multi-year period and to provide a framework to allow for management of its risk positions.
>
> The RMP is designed to provide the Supply Management Group (SMG) with a more comprehensive set of tools to mitigate the adverse impacts associated with changing natural gas or wholesale electricity prices.
>
> Risk management strategies involve and active "mark-to-market" assessment of market conditions to match its supply portfolio to its portfolio of retail and wholesale obligations.
>
> In effect, these strategies set out to determine how much market risk is reasonable to best minimize costs and volatility, while still providing the electric providing the electric segment's customers with reasonable fuel costs.
>
> An overview of the electric segment's hedging targets for natural gas is outlined below.
>
> At least yearly, the electric segment will model its electric system with a production cost model to establish an expensed gas burn for retail load for each of the next four years. This budgeted gas burn will be developed utilizing a consistent methodology as that utilized in the Company's financial projections.
>
> From time to time as conditions change (i.e. unit outages, gas commitments, purchase power commitments), the SMG shall assess the electric segment's system to establish a new "expected" gas burn for native load.
>
> For the electric segment's purposes hedging includes physical forward purchases, physical management tools such as pipeline imbalance tariffs, park and loan, interruptible storage, OTC swaps and exchange traded financial contracts.

[2] www.investopedia.com

The electric segment will utilize the following procurement guidelines:
Hedge a minimum of 10% of year four expected gas burn
Hedge a minimum of 20% of year three expected gas burn
Hedge a minimum of 40% of year two expected gas burn
Hedge a minimum of 60% of year one expected gas burn

The SMG will have the flexibility to hedge up to 100% of the current year's and 80% of any future year's expected requirements while being cognizant of volume risk. The 80% target is an annual target and volumes up to 100% can be hedged in any given month. For years beyond year four, additional factors of long term uncertainty in required volumes, counterparty credit, etc. should also be considered.
(By December 31 of current year we should have a minimum of 60% of the next years projected gas burn hedged.)

This progressive dollar cost averaging approach is intended to protect our customers and shareholders from volatility in the marketplace. In addition the progressive approach allows for increasing uncertainty of gas needs inherent in forecasting events occurring further in the future.

If changes in expected gas burns occur that make us more than 100% hedged in any given month, appropriate steps will be taken to reduce our hedged position to 100% or less following consideration of accounting guidance and review by the RMOC. Given that there is some uncertainty in our modeling efforts, an overhedged position of 50,000 MMBtu's or less would generally not be considered material and not subject to action."

4. Conclusion

Staff has reviewed Empire's hedging activities as it relates to compliance with Empire's RMP. Staff did not find that Empire had acted imprudently in the administration of its hedging activities.

5. Documents Reviewed

Empire's responses to Staff data requests No. 1, 2, 47 & 49

C. Natural Gas Expense

1. Description

For the time period of September 1, 2008 to August 31, 2009 it reviewed, Staff concluded that a total of approximately ** __________ ** of Empires fuel costs were associated with natural gas used in the generation of electricity. Approximately ** __________ ** of this total were associated with hedging activities and approximately ** __________ ** were associated with non-hedged purchases. This total excludes Empire's fuel costs for off system sales but it

NP

does include various miscellaneous charges such as firm transportation service charges and other miscellaneous fuel handling expenses. Staff found no indication of imprudence regarding Empire's costs associated with the natural gas hedging contracts it had in place for the time period in this case.

2. Summary of Cost Implications

If it was found that Empire had been imprudent in its purchasing decisions relating to natural gas, rate payer harm could result from an increase in rates.

3. Conclusion

Staff found no indication of decisional imprudence associated with Empire's purchases of natural gas for the first prudence review period.

4. Documents Reviewed

a. Empire's responses to Staff data requests related to Empire's hedging of natural gas prices during September 1, 2008 to August 31, 2009.

b. Empire's General Ledger, Cost Adjustment Factor Calculation, and other work papers to determine the amount that Empire paid for natural gas as compared to the total cost of natural gas that Empire claims it incurred during its first two accumulation periods.

D. Coal and Pet Coke Expense

1. Description

For the first two of Empire's accumulation periods it reviewed (covering September 1, 2008 to August 31, 2009), Staff concluded that approximately ** __________ ** of Empire's fuel cost was associated with coal and pet coke it used in generating electricity. Empire's Riverton generating facility uses a blended coal mix (coal and pet coke) to achieve proper operational parameters. This cost of coal and pet coke fuel does not include the cost of fuel used for off-system sales, but it does include various miscellaneous charges such as rail and other ground transportation service charges and other miscellaneous fuel handling expenses. Staff found no indication of imprudence regarding Empire's costs associated with the coal and pet coke contracts Empire had in place for the time period in this case.

2. Summary of Cost Implications

If it was found that Empire had been imprudent in its purchasing decisions relating to coal and pet coke, rate payer harm could result from an increase in rates.

3. Conclusion

Staff found no indication of decisional imprudence by Empire for it's purchase of coal and pet coke for the two accumulation periods of Empire's FAC (which cover the period September 1, 2008 to August 31, 2009.

4. Documents Reviewed

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

b. Empire's General Ledger, Cost Adjustment Factor Calculation, and other work papers to determine the amount that Empire paid for coal and pet coke as compared to the total cost of coal and pet coke that Empire claims it incurred during its first two accumulation periods.

E. Other Fuel Type Costs

A. Fuel Oil

1. Description

For the first two accumulation periods of Empire's FAC Staff reviewed (which cover the period September 1, 2008 to August 31, 2009, Staff concluded that approximately ** _________ ** of Empire's cost of fuel was associated with fuel oil used in the generation of electricity. Empire's generating facilities use fuel oil mostly during startups to achieve proper operational parameters. This cost of fuel oil used to generate electricity does not include cost of fuel Empire used for off-system sales but it does include various miscellaneous charges, such as ground transportation service charges and other miscellaneous fuel handling expenses. Staff found no indication of decisional imprudence regarding Empire's costs associated with Empire's fuel oil contracts in place for September 1, 2008 to August 31, 2009 the time period in this case.

NP

2. Summary of Cost Implications

If it was found that Empire had been imprudent in its purchasing decisions relating to fuel oil, rate payer harm could result from an increase in rates.

3. Conclusion

Staff found no indication of imprudence for the purchase of fuel oil for the two accumulation periods.

4. Documents Reviewed

Empire's General Ledger, Cost Adjustment Factor Calculation and other supporting work papers to determine the amount Empire paid for fuel oil as compared to the total cost of fuel oil Empire claims it incurred during its first two accumulation periods.

F. Tire Derived Fuel (TDF)

1. Description

For the accumulation periods reviewed, the Staff concluded that approximately ** ________ ** of the cost of fuel was associated with TDF used in the generation of electricity. Asbury generating facility uses a blended coal mix (coal and TDF) in order to achieve proper operational parameters. This cost of TDF excludes the amount associated with the cost of fuel for off-system sales. The cost of TDF does include various miscellaneous charges such as rail and other ground transportation service charges and other miscellaneous fuel handling expenses. Staff found no indication of imprudence regarding costs associated with TDF contracts in place for the time period in this case.

2. Summary of Cost Implications

If it was found that Empire had been imprudent in its purchasing decisions relating to TDF, rate payer harm could result from an increase in rates.

3. Conclusion

Staff found no indication of imprudence for the purchase of TDF for the two accumulation periods.

4. Documents Reviewed

Empire's General Ledger, Cost Adjustment Factor Calculation, and other work papers to determine the amount Empire paid for TDF as compared to the total cost of TDF Empire claims it incurred during its first two accumulation periods.

Staff Expert: Dana Eaves

G. Purchased Power Contracts

1. Description

During the first two accumulation periods, Empire met some of its capacity and energy needs through long term contracts. Staff reviewed the relevant purchased power contracts. Empire had three Purchased Power Agreements (PPA) and one sale contract in effect for the accumulation periods reviewed. The contracts were provided as Highly Confidential responses by Empire to Staff's Data Request No. 24. Staff reviewed the following contracts for prudency:

a. Renewable Resource Energy Purchase Agreement between The Empire District Electric Company and Elk River Windfarm, LLC

b. Participation Power Agreement between Western Resources, Inc. and The Empire District Electric Company

c. Renewable Resource Power Purchase Agreement by and between Cloud County Wind Farm, LLC and The Empire District Electric Company

d. Kansas City Board of Public Utilities (BPU) and The Empire District Electric Empire.

The Staff notes that the Sale Agreement with BPU expired September 30, 2008, the first month of the first accumulation period, and was not renewed.

2. Summary of Cost Implications

If it was found that Empire had been imprudent by purchasing additional power or capacity to meet its demand, rate payer harm could result from an increase in rates.

3. Conclusion

Staff found no evidence of imprudence related to Empire's long-term purchased power contracts.

4. Documents Reviewed

Empire's Responses to Staff Data Requests 24

Staff Expert: Dana Eaves

H. Purchased Power Energy Costs

1. Description

Staff reviewed both the prices of and the amounts Empire paid for purchased power under the contracts listed in Section F. Over both accumulation periods September 1, 2008 to August 31, 2009 Empire's purchased power costs total ** __________ **. Empire's participation power agreement with Western Resources, Inc. is with a coal unit at a cost similar to that of other coal units, and below spot market prices. The contracts with the two wind farms mentioned in the preceding section are both "take or pay" contracts, and in addition to electricity, includes the associated Renewable Energy Credits (REC's). The Elk River Wind Farm contract is at a fixed price, which is below the current spot market average price during the September 1, 2008 to August 31, 2009 review period. The Cloud County Wind Farm contract is at a fixed price, which is above the current spot market average price during the September 1, 2008 to August 31, 2009 review period. This contract is "take or pay" at a fixed price and actually cost more in the current market to take this energy than it would to buy energy on the current spot market during the September 1, 2008 to August 31, 2009 review period. However, the current spot market average price is lower than in the recent past due to lower market prices for natural gas. Since natural gas prices are highly volatile in the long term, this contract does not appear to be imprudent but does deserve close evaluation in the future.

Any REC's that were purchased with these wind farm contracts also have a market value whose potential revenue should be credited back to offset Empire's purchased power costs. Presently REC's potential revenue is not recovered in the FAC. This issue will be addressed by Staff witness Matthew Barnes in the rate case ER-2010-0130.

In addition to the long term purchased power contracts discussed above Empire also purchases hourly energy in the market from other electric suppliers to help meet Empire's load during times of plant forced or planned outages and during times when the market price is below both the marginal cost of providing that energy from Empire's generating units and the cost of capacity purchases. Staff reviewed hourly and monthly purchased power information during the review period.

2. Summary of Cost Implications

If it was found that Empire had been imprudent by purchasing additional power or energy to meet its demand at a rate above which Empire could generate itself, rate payer harm could result from an increase in rates.

3. Conclusion

Staff found no evidence Empire acted imprudently with regard to the issue of its purchases of hourly energy in the market during the period September 1, 2008 to August 31, 2009 review period. It is likely that Empire's fuel and purchased power costs were higher in the period reviewed than they would have been had the wind power Empire used been economically dispatched instead of take-or-pay. However, these are long-term contracts and must be viewed in light of the long-term needs of Empire and the fact that generation sources can only be added in amounts greater than what is needed in the short-term to minimize the costs and risks over the long-run. Staff does not find Empire's decision to enter into the Cloud County Wind Farm contract to be imprudent.

However, Empire's wind contracts provide Empire with a revenue stream due to the Renewable Energy Credit (REC) associated with every megawatt-hour of electricity they produce. During the September 1, 2008 to August 31, 2009 time period of this prudency review, Empire sold the RECs associated with the electricity from these wind farms. In future prudency reviews, Staff will review Empire's process of maximizing the revenue that it receives from the sale of its RECs from its wind farm PPAs.

4. Documents Reviewed

a. Empire's responses to Staff Data Requests Data Request No. 1, 4, 12, 18, 21, 22, 25 & 37

b. Hourly purchased power data submitted by Empire in compliance with 4 CSR 240-3.190.

Staff Expert: Leon Bender

I. Off-System Sales

1. Description

Profit from off-system sales is a component of Empire's FAC, and is reflected as the "Actual total system off-system sales margin," or "O," listed on Empire Tariff Sheet No. 5 Original Sheet No 17a.

For the accumulation periods reviewed, the Staff concluded that the level of off-system sales margin was ** _________ **.

Staff reviewed the off-system sales quantity, revenues and costs over the review period. Staff compared the quantity and margins to historical information regarding Empire's off-system sales.

2. Summary of Cost Implications

Empire's pursuit of off-system sales at a profit offsets total fuel and purchased power costs, although serving native load is a higher priority. If it was found that Empire had been imprudent in making off-system sales, rate payer harm could result from an increase in rates.

3. Conclusion

Staff found no evidence Empire was imprudent with regard to off-system sales.

4. Documents Reviewed

a. Monthly reports submitted in compliance with 4 CSR 240-3.161(5)

b. Empire's response to Staff Data Request No. 1 & 2

c. Monthly Outage data submitted by Empire in compliance with 4 CSR 240-3.190

Staff Expert: Dana Eaves

J. SO2 Allowances

1. Description

The U.S sulfur dioxide (SO_2) 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. It requires electric utilities to reduce their SO_2 emissions by about fifty percent (50%) from 1980 levels or purchase allowances to meet this standard.

Under CAAA power plants are allocated a 30-year stream of tradable allowances, each worth one ton of SO_2. The allocations are based on an average capacity factor from the period 1985 to 1987. Allowances are awarded by the Environmental Protection Agency (EPA) every year and are designated by vintage year. The vintage year denotes the first year the allowances are usable for compliance. Unused allowances can be sold or banked for use in subsequent years.

The US EPA's Clean Air Interstate Rule (CAIR), issued in 2005, and was developed to address the transport of pollutants from upwind to downwind states. States in the eastern half of the country were required over a six-year compliance period (2009-2015) to participate in a federal program intended to reduce emissions of SO_2 by 57 percent (57%) from 2003 levels and Nitrogen Oxide (NOx) by 61 percent (61%) from 2003 levels.

The primary mechanism of the rule is a cap-and-trade program that will allow a major source of NOx and/or SO_2 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, the power plants are required to submit two SO_2 allowances for each ton of SO_2 emitted. This ratio is further tightened to 2.86 allowances for each ton of SO_2 emitted in 2015.

However, a number of petitions for judicial review of CAIR were filed in the D.C. Circuit Court, and on July 11, 2008, the D.C. Circuit Court of Appeals vacated the Clean Air Interstate Rule, and later has reversed the vacature. CAIR was in affect during the prudence review period, and this report assumes that CAIR will remain in affect in the future.

Empire receives its SO_2 allowances from the EPA on a yearly basis to meet its annual SO_2 emissions. These allowances have no cost and therefore they are banked at zero cost. Gains from disposition of allowances are credited to FERC account 254 with subsequent recognition of income in FERC 411. Since they are recorded at zero cost, there is no subsequent charge to expense, FERC accounts 509, as they are retired. In addition, Empire does not currently purchase SO_2 allowances.

The Asbury, Riverton and Iatan I coal plants collectively receive 11,723 allowances per year. These plants burn low sulfur Western coal (Powder River Basin), higher sulfur blend coal and/or petroleum coke. In addition, TDF is used as a supplemental fuel at the Asbury Plant. Currently, Empire finds itself in a position where, although Empire receives allowances and continues to carry a bank of allowances, that surplus has rapidly decreased in the previous five years and is projected to continue decreasing in the years ahead. When Empire's SO_2 allowance bank is exhausted, currently estimated to be mid-2011, Empire will need to purchase additional SO_2 allowances or build a flue gas desulphurization (FGD) scrubber system at the Asbury Plant.

2. Summary of Cost Implications:

At the point when the existing bank of SO_2 allowances is exhausted, Empire will be required to purchase additional credits to offset its emissions. These purchases of allowances could possibly increase fuel costs and will be included in the FAC calculation.

3. Conclusion

Based on the documents reviewed, Staff found no indication of imprudence. The variations of the number of allowances used during the accumulation periods are a function of the tons of coal burned during the accumulation periods and the sulfur content of the coal.

4. Documents Reviewed:

Empire response to Staff Data Request No. 41, 44, 45, 46, & 50

Staff Expert: David Roos

IV. Interest Costs

1. Description

During the accumulation periods Empire is required to calculate interest costs associated with the under-recovered or over-recovered of fuel and purchased power costs. Empire applies the Company's short term interest rate to the over- or under-recovered balance on a monthly basis. This interest cost is component "I" of the Cost Adjustment Factor Calculation.

2. Summary of Cost Implications

If it was found that Empire had been imprudent during the calculation of interest cost or using a rate that did not fairly represent the actual cost of Empire's short term interest rate, ratepayer harm could result from an increase in rates or not the correct decrease.

3. Conclusion

Staff found no evidence Empire acted imprudently with regard to the issue of interest expense.

4. Documents Reviewed

Empire's interest calculation work papers in support of the interest calculation on the over- under-recovered balance.
Staff Expert: Dana Eaves

V. Outages

1. Description

Empire generates much of its energy with its own generating stations. Outages taken at any of the generating units can have an impact on how much Empire will pay for fuel and purchased power and could result in Empire asking for more fuel and purchased power cost than is necessary. Outages can be either planned or unplanned. Staff examined the outages and the timing of these outages to determine if these outages were prudently taken. An example of an imprudent outage would be planning an outage of a large coal unit during peak demand times.

Staff found that during the period of this prudence review the Iatan Unit 1 plant was forced to extend its outage from a planned end on February 7, 2009 to March 17, 2009. State Line Combined Cycle (SLCC) commenced a major planned outage on February 27, 2009. These two outages overlapped each other by 18 days during which time Empire had to purchase energy to meet its load. Empire stated that it was unable to delay the outage of SLCC due previous commitments with material and labor and delay would have meant SLCC would have been unavailable for the start off the summer peak times. In Staff's production cost model by Staff witness Shawn Lange in case ER-2010-0130, SLCC dispatches at approximately the same price as the spot market price therefore purchasing energy from the market rather than running SLCC during the overlap period did not adversely affect the cost of service. The impact of the overlap of the outages was also mitigated by abnormally low demand during this period and the addition of energy from Meridian wind farm. Therefore, the financial impact of these overlapping outages was less than if the units had been down during a period of high demand.

2. Summary of Cost Implications

An imprudent outage could result in Empire purchasing expensive spot power or running its more expensive gas units to meet demand. Thus, Empire would purchase more natural gas than necessary and, consequently, have higher fuel costs.

3. Conclusion

Staff did not find any evidence of imprudent outages during the time period examined in this review. Even though Empire owns a portion of Iatan I, the majority owner of the Iatan I plant, Kansas City Power & Light Company, manages the plants and determines the timing of the planned outages. Empire planned outage of SLCC to occur after Iatan I was scheduled to come on line after its planned outage. Staff does not find that Empire acted imprudently in the scheduling of the planned outage of SLCC. Because Empire does not determine the planned outage of Iatan I, Staff does not find that Empire acted imprudently with respect to the Iatan I outage.

4. Documents Reviewed

a. Empire's responses to Staff Data Requests 4 & 5

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

c. Contracts regarding Iatan I

Staff Expert: Leon Bender

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the First Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of The Empire District Electric Company	)))))	Case No. EO-2010-0084

AFFIDAVIT OF LEON C. BENDER

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Leon C. Bender, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report in pages 11, 12, 16 & 17; that he has knowledge of the matters set forth in such Report; and that such matters are true to the best of his knowledge and belief.

Leon C. Bender

Leon C. Bender

Subscribed and sworn to before me this 26th day of June, 2009.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086

Susan L. Sundermeyer

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the First Prudence Review of Costs Subject to the Commission-Approved Fuel Adjustment Clause of The Empire District Electric Company	)))))	Case No. EO-2010-0084

AFFIDAVIT OF DANA E. EAVES

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Dana E. Eaves, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report in pages 2, 4-11, 13, 15 + 16; that he has knowledge of the matters set forth in such Report; and that such matters are true to the best of his knowledge and belief.

Dana E. Eaves

Dana E. Eaves

Subscribed and sworn to before me this 26th day of June, 2009.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086

Susan L. Sundermeyer

Notary Public