MISSOURI PUBLIC SERVICE COMMISSION

STAFF'S
CLASS COST-OF-SERVICE
AND
RATE DESIGN REPORT

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2010-0130

Jefferson City, Missouri
March 9, 2010

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STAFF'S
CLASS COST-OF-SERVIVE
AND
RATE DESIGN REPORT

ER-2010-0130

THE EMPIRE DISTRICT ELECTRIC COMPANY

I. Executive Summary

Staff's Class Cost-of-Service and Rate Design objectives in this case are:

1. Provide a method to collect the Commission-ordered overall increase in revenues;
2. Retain all of the existing rate structures and important features of the current rate design;
3. To recommend that any Commission-ordered overall revenue increase be implemented as an equal percentage increase to each rate component of each rate schedule;
4. Staff does not support a separate line item on customer's bill for Rate Case Expense Recovery Rider;
5. Update rate schedules to reflect the results of a recent loss study;
6. To present the Staff's proposed changes to Empire's current Fuel Adjustment Clause tariffs; and
7. To present Staff's analysis of Empire's Experimental Low Income Program.

Staff's Revenue Requirement Cost-of-Service Report filed February 26, 2010 shows that an increase in revenue requirement for The Empire District Electric Company ("Empire") in the range of $4,763,672 to $10,685,845 is warranted (midpoint of range is $7,724,759), based upon a recommended rate of return range of 7.85% to 8.32%. Furthermore, the Staff's regulatory plan amortization calculation results in a further indicated increase in revenue requirement of $60,536,325. The Staff's calculated revenue requirement for Empire, combining both the cost-of-service (midpoint) and regulatory plan amortization, is $68,261,084. Based on Staff's revenue requirement of $68,261,084, the revenue impact to customers would be approximately a 19.3% increase.

II. Class Cost-of-Service Study

A Non-Unanimous Stipulation and Agreement filed in this case, Case No. ER-2010-0130, on February 25, 2010, and approved by the Commission on March 3, 2010, provides, in part, for the following:

- Empire does not seek to recover in rates resulting from the instant case the costs associated with its investment in Iatan 2; and
- This case is not the "Rate Filing" called for in Section III.D.7. of the Empire Experimental Regulatory Plan Stipulation And Agreement, Case No. EO-2005-0263.

The Non-Unanimous Stipulation and Agreement acknowledges that Empire is not required to file in this case the Class Cost-of-Service Study called for in the Regulatory Plan. It is anticipated that Empire will file another general rate case soon after this proceeding concludes, in order to obtain treatment of rate base investment for Iatan 2 now scheduled to be in-service in the fall of 2010, and any Plum Point, Iatan 1, and Iatan 1 and 2 Common Plant items necessary for operation of Iatan 1 that were not reflected in the revenue requirement in this case. Staff did not perform a CCOS study in this case. It intends to perform a CCOS study in the next case.

Staff Expert: Michael S. Scheperle

III. Rate Design

Staff's rate design objectives in this case are:

- To provide a method to collect the Commission ordered overall increase in revenues;
- To recommend retaining all of the existing rate structures and important features of the current rate design; and
- To recommend that any Commission-ordered overall increase be implemented as an equal percentage increase to each rate component of each rate schedule.

The last CCOS study conducted by Empire was filed in Case No. ER-2004-0570, using data from 2003. Staff believes the 2003 data is too old to use as a basis for recommending revenue-neutral shifts in class revenue responsibility. Since Staff did not perform a CCOS study in this case, it is not recommending any revenue-neutral shifts between classes. Staff proposes to allocate any allowed revenue increase among customer rate schedules as an equal percentage for each rate component.

IV. Rate Case Expense Recovery Rider

Empire requested a change to customers' bills creating a separate line item for its proposed Rate Case Expense Recovery (RCER) Rider. In its Revenue Requirement Cost of

Service Report, Staff recommended that the Commission not approve the requested RCER. However, if the Commission does approve the RCER, Staff does not support the concept of having a separate line item on each customer's bill for this type of expense due to confusion associated with such expense appearing on customers' bills. Any amount included in Staff's revenue requirement should be reflected in base rates and not a separate line item on customer's bills. Staff is not aware that any electric utility in Missouri has a separate line item charge for rate case expense.

Staff Expert: Michael S. Scheperle

V. Rate Schedule Adjustments to Reflect Updated Losses

Management Applications Consulting Inc. performed a new system loss study and presented the results in the "Empire District Electric Company 2009 Analysis of System Losses" dated October 2009. This loss study provided in response to Staff Data Request No. 001 provides updated estimates of system losses for Empire's Missouri jurisdiction. It includes losses for the discrete voltage levels developed for use with metered sales data for Transmission, Primary Substation, Primary and Secondary voltages. In general, the reported losses represent a slight reduction from previously documented losses. A review of that loss study was made by Staff Engineer Alan J. Bax.

When a customer is metered at a voltage level other than the standard tariff voltage level, an adjustment for losses is made to the customer's metered demand (kilowatts) and energy (kilowatt-hours) prior to billing. Empire provides service to demand-metered Missouri commercial and industrial customers under three general application rate schedules:

General Power-Schedule GP
Large Power-Schedule LP
Special Transmission Service-Schedule STS

Each of these rate schedules is designed for customers within a certain range of sizes (maximum demand) and load factors (constancy of load over time), and assumes certain voltage level (secondary, primary, transmission) characteristics. However, none of these characteristics are mandatory requirements; each commercial or industrial customer can choose to take service under the provisions of any general application rate schedule. Voltage level, in particular, does not determine a customers' eligibility for service under any specific rate schedule, even those with restricted availability, since each rate schedule contains provisions to treat customers with non-standard voltage configurations.

In addition to the three general application rate schedules, Empire offers service to customers on two rate schedules with restricted availability:

Total Electric Buildings-Schedule TEB
Special Contract-Praxair-Schedule SC-P

TEB is the companion rate schedule to GP that is only available to all electric customers. SC-Praxair is a companion rate schedule to STS that is only available to Praxair.

The Table below summarizes the voltage options for current rate schedules:

Rate Schedule	Type of Rate Schedule	Standard Delivery & Metering Voltage	Non-Standard Delivery Voltages	Non-Standard Metering Voltages
General Power (GP)	General Application	Secondary	Primary	Primary
Total Electric Buildings (TEB)	Restricted Availability	Secondary	Primary	Primary
Large Power (LP)	General Application	Primary	Secondary, Transmission	Secondary, Transmission
Special Contract - Praxair (SC-P)	Restricted Availability	Transmission	Transmission	Primary Substation
Special Transmission Service (ST)	General Application	Transmission	Transmission	Primary Substation

Staff recommends replacing the existing factors in the current tariff sheets with the updated adjustment factors. The proposed change will provide a clear and consistent method for adjusting metered demand and energy for each rate schedule that contains a Meter Adjustment. In each case, the kilowatts and kilowatt-hours are increased (or decreased) by multiplying metered kilowatts and kilowatt-hours to reflect the results of Empire's most recent loss study. This will result in correct losses being embedded in permanent rates and consistency with the losses embedded in the proposed fuel adjustment charges.

The recommended metering adjustment factors are summarized below:

Rate Schedule	Voltage Level From:	Voltage Level To:	Recommended Factor
General Power	Primary	Secondary	0.9827
Large Power	Secondary	Primary	1.0176
Large Power	Transmission	Primary	0.9768
Special Transmission	Primary Substation	Transmission	1.0086

Staff Expert: Michael S. Scheperle

VI. Fuel and Purchased Power Adjustment Clause

In Staff's Revenue Requirement Cost of Service Report (Staff Report), Staff recommended that the Commission modify Empire's Fuel Adjustment Clause (FAC) concerning the following:

1. The form of electronic workpapers required to be provided by the Company to support its Cost Adjustment Factor (CAF) filings;
2. Deletion of true-up language in the prudence review section of the FAC tariff sheets;
3. Inclusion of revenues from renewable energy credits as an off-set to costs in the calculation of Empire's CAF;
4. Change in base cost per kWh for the summer months of June through September and a change in base cost per kWh for all the other months;
5. Order Empire to provide to Staff, or to make available to Staff, any and all information and/or documents reasonably required to assist Staff during the performance of CAF, true-up and prudence reviews; and
6. Order Empire to discontinue use of the word "Fuel Charge" on its customers' bills and to instead substitute the words "Fuel and Purchased Power Adjustment" in an effort to help reduce customer confusion.

Since filing its Staff Report, the Staff has identified a number of additional changes it desires to improve the clarity and efficiency of the FAC. The changes include:

7. Delete entirely the section on prudence review, since the Staff, and not the Company, is responsible for initiating and conducting the prudence review;
8. Add a new section to describe the timing and the process for true-up of the difference between the revenues billed and the revenues authorized for collection during each recovery period;
9. Redefine factor F to be total cost of fuel – FERC Accounts 501 and 547 (by deleting the words “net system input” in the current definition of factor F);
10. Redefine factor O to be off-system sales revenue (and not off-system sales margin); and;
11. Numerous grammatical changes.

Staff performed a fuel run in this case and Empire provided its line loss study in response to Staff Data Request 0001. Based on Staff’s fuel run and Empire’s line loss study, Staff recommends the Commission order changes to Empire’s FAC tariff sheets to reflect the following:

12. Change in base cost per kWh for the summer months of June through September to \$0.02979 and a change in base cost per kWh to \$0.02690 for all the other months; and
13. Change to loss factors consistent with Empire’s loss study.

Staff has prepared exemplar tariff sheets to effect these recommendations, and Staff recommends the exemplar tariff sheets in Schedule MJB-1 be approved in this case. Schedule MJB-1 specifies that the provisions of the current FAC tariff sheets be applicable for determining the Base Fuel Costs for service provided prior to the effective date of the new FAC tariff sheets approved in this case and that the provisions of the new FAC tariff sheets to be applicable to service provided on and after the effective date of the new FAC tariff sheets.

Staff Expert: Matthew J. Barnes

VII. Experimental Low Income Program

Empire’s Experimental Low-Income Program (ELIP) started in 2003 and ran through September 2009. It was developed to study the ability to pay one’s electric bill based on income and arrearage forgiveness with credits applied to the individual consumer’s bill. An independent evaluator (TecMarket Works) was retained by Empire to evaluate the program. Staff has not yet received a final program evaluation, although it has reviewed a draft of the evaluation. Staff provides the following preliminary recommendations and discussion based on the draft ELIP evaluation, and will provide any additional information or modification in subsequent rounds of testimony.

Recommendation

Based on the draft ELIP evaluation, ELIP has not been successful, and Staff does not recommend its continuation. While ELIP did assist consumers during their participation in ELIP, it did not appear to impact their payment behaviors outside of the program's duration. Consumers who were successful in the program paying their subsidized bills were unsuccessful following the elimination of the credits. This is indicative that these consumers can not continue to afford their utility service, and that financial ability is the key issue. Similar to the recommendation filed by Staff witness Anne E. Ross in her rebuttal testimony in AmerenUE's rate case (Case No. ER-2010-0036) regarding low-income programs, the Staff believes that the far reaching issues of poverty and financial education should be addressed outside of a rate case so that the Commission can participate to the extent that it wishes.

If the Commission re-authorizes a program similar to ELIP, or orders Empire to implement a similar low-income program, Staff recommends the following:

- The Community Action Agencies (CAAs) are the appropriate partner to qualify and enroll the participants into the program and to monitor their ongoing qualifications.
- It would be easier for the CAAs to administer ELIP if their participant threshold was set to match that of Low Income Home Energy Assistance Program (LIHEAP) participants.
- Better and more education/marketing on ELIP for CAAs and participants may better improve the level of participation and may help improve participation in all aspects of ELIP.
- Better communications and follow through from the utility and CAAs on all aspects of the program needs to be in place, in other word, periodic reviews in the form a meetings or conference calls to check the status of the program should be conducted to ensure that all parties' requirements and needs are being met.

Qualifying Criteria

Initially the qualifying criteria to be a participate in EILP was to be an active Empire residential consumer whose annual household income was no great than 100 percent (100%) of the federal poverty level (FPL). This was changed to 125 percent (125%) in 2006, in order to allow a greater number of participants.

For ease of consistency and administration, Staff would recommend that the qualifying criteria be the same as established for the LIHEAP which is currently 135 percent (135%). In addition, Staff recommends that participants be required to enroll in the arrearage forgiveness, the average payment plan, apply or be a recipient of LIHEAP, and apply for weatherization assistance, if applicable.

Tier Thresholds

ELIP, as designed, provides two tiers of credits. Customers between 0% and 50% FPL receive \$50.00 per month, and customers between 51% and 125% receive \$20.00 per month. Staff recommends that the tier thresholds be changed to 0-75% FPL and 76%-135% FPL. Participants would be eligible as long as they meet the necessary qualifying criteria.

Credits

The draft evaluation indicates that the rate of participation during the study period was lower than expected and that only about half of the annual funds were utilized. The evaluator concluded that the level of credits were not appropriately set. Staff agrees, and recommends that the credits for Tier 0-75% be \$50 per month, and the credits for Tier 76-135% be \$25 per month.

In addition, it appears from the study that the utility should provide a more clear and concise explanation of the "Pay Ahead" option and the advantage of making a payment ahead. Under this program, for every \$2 paid above the minimum monthly payment the participant is credited \$3. Therefore if the participant had no debt, yet paid \$20 more than what they owed on their current bill, they would actually see a credit of \$30. The study indicated that there were no participants in this feature of the program.

Arrearages

Due to the lack of data provided in the draft ELIP evaluation regarding arrearage status; Staff is not able at this time to make a determination on the success or lack of success of this component of the ELIP.

Billing Periods

Based on draft data regarding participants' behavior on bill payments, it appears the participants improved on making their payments on time during their participation in the program. However, post-ELIP, it appears the percentage of on-time payments was lower than pre-ELIP.

Education

Based on the draft ELIP evaluation, the education for participants and CAA partners should be improved. It appeared that CAAs need more and better marketing materials for promoting the program and that the CAA staff needs to be better educated on all aspects of the program. The evaluator recommended more information should be made available on the utility's website for the CAAs and participants. Staff concurs in this recommendation.

Staff Expert: Carol Gay Fred

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of The Empire District Electric Company for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Missouri Service Area of the Company	)))))	Case No. ER-2010-0130

AFFIDAVIT OF MICHAEL S. SCHEPERLE

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

Michael S. Scheperle, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report in pages 1 – 5; 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.

Michael S. Scheperle
Michael S. Scheperle

Subscribed and sworn to before me this 9th day of March, 2010.

NOTARY PUBLIC STATE OF MISSOURI NOTARY SEAL

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 Empire District Electric Company for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Missouri Service Area of the Company)	Case No. ER-2010-0130

AFFIDAVIT OF MATTHEW J. BARNES

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Matthew J. Barnes, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report in pages 5 + 6; 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.

Matthew J. Barnes

Matthew J. Barnes

Subscribed and sworn to before me this 9th day of March, 2010.

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 Empire District Electric Company for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Missouri Service Area of the Company	)))))	Case No. ER-2010-0130

AFFIDAVIT OF CAROL GAY FRED

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Carol Gay Fred, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Staff Report in pages 6 - 9; that she has knowledge of the matters set forth in such Report; and that such matters are true to the best of her knowledge and belief.

Carol Gay Fred
Carol Gay Fred

Subscribed and sworn to before me this 9th day of March, 2010.

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

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

(Applicable to Service Provided on Month Day, 2010 and Thereafter)

The two six-month accumulation periods, the two six-month recovery periods and filing dates will be as follows:

	ACCUMULATION PERIOD	RECOVERY PERIOD	ACCUMULATION PERIOD	RECOVERY PERIOD
	SEPTEMBER	JUNE	MARCH	DECEMBER
	OCTOBER	JULY	APRIL	JANUARY
	NOVEMBER	AUGUST	MAY	FEBRUARY
	DECEMBER	SEPTEMBER	JUNE	MARCH
	JANUARY	OCTOBER	JULY	APRIL
	FEBRUARY	NOVEMBER	AUGUST	MAY
Filing ~~date:~~Date:		April 1st		October 1st

The Company will make a Cost Adjustment Factor ("CAF") filing by each Filing Date. The new CAF rates for which the filing is made will be applicable starting with the Recovery Period that begins following the Filing Date. All CAF filings shall be accompanied by detailed workpapers supporting the filing in an electronic format with all formulas intact.

DEFINITIONS

ACCUMULATION PERIOD:
The six calendar months during which the actual costs subject to this rider will be accumulated for purposes of determining the ~~Cost Adjustment Factor~~CAF.

RECOVERY PERIOD:
The billing months during which ~~Cost Adjustment Factor (~~CAF~~)~~ is applied to retail customer billings on a per kilowatt-hour (kWh) basis.

COSTS:
Costs eligible for Fuel Adjustment Clause (FAC) will be the Company's total book costs as allocated to Missouri for fuel consumed in Company generating units, including the costs associated with the Company's fuel hedging program; purchased power energy charges, including applicable transmission fees; Southwest Power Pool variable costs, and emission allowance costs during the Accumulation Period. Eligible costs do not include the purchased power demand costs. These costs will be off-set by off-system sales ~~margin and~~revenue, any emission allowance revenues collected, and any renewable energy credit revenues in the Accumulation Period.

BASE COST:
Company generated energy and purchased energy cost per kWh at the generator, established by season in the most recent base rate case. The base cost per kWh for the summer months of June through September is $0.~~03001.~~02979. For all other months the base cost per kWh is $.0.~~02744~~02690.

DATE OF ISSUE ____________________ DATE EFFECTIVE ____________________
ISSUED BY Kelly S. Walters, Vice President, Joplin, MO

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

(Applicable to Service Provided on Month Day, 2010 and Thereafter)

APPLICATION

FUEL ADJUSTMENT CLAUSE

The average price per kWh of electricity generated or purchased will be adjusted subject to application of the FAC, and approved by the Public Service Commission. The price will reflect 95 percent of the accumulation period costs either above or below base costs specified below for:

1. ~~fuel~~Fuel consumed in Company electric generating plants,

~~2.purchased~~Purchased energy (excluding demand),

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

2. ~~off~~

3. Off-system sales ~~margin~~revenue,

4. ~~net of emission~~Emission allowance costs and revenues~~.~~, and

5. Renewable energy credit revenues.

It will also include:

~~5.~~6. ~~an~~An adjustment for the prior recovery ~~period sales variation~~period's over/under recovery.

~~6.~~7. ~~Interest:~~ Interest at a rate equal to the Company's short-term interest rate will be applied to the average monthly deferred electric energy costs and will be accumulated during the accumulation period. Deferred electric energy cost shall be determined monthly. The monthly deferred amount may be negative or positive during the accumulation period.

The formula and components are displayed below.

FAC = {[(F + P + E ~~–~~ – O- R - B) * J] * 0.95} + C + I

Where:

F = Actual total ~~net system input~~ cost of fuel - FERC Accounts 501 & 547

P = Actual total net system input cost of purchased energy - FERC Account 555 (excluding purchase power demand charges)

E = Actual total system net emission allowance cost and revenues - FERC Accounts 509 & 254.103

O = Actual total system off-system ~~sales margin~~salesrevenue

B = Base cost of fuel and purchased power energy calculated as follows:

1. For the months of June through September	B = (NSI kWh * $0.~~03001~~02979)
2. For all other months	B = (NSI kWh * $0.~~02744)~~ 02690)

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

(Applicable to Service Provided on Month Day, 2010 and Thereafter)

R = Renewable energy credit revenues

J = Missouri energy ratio calculated as follows:

Missouri ~~Energy Ratio~~energy ratio = Missouri ~~Retail~~retail kWh sales / Total ~~System~~ system kWh sales

Where Total ~~System~~system kWh ~~Sales~~sales excludes off-system sales

C = True-up of ~~Under/Over~~over/under recovery of FAC balance from prior ~~Recovery~~recovery period as included in
the deferred energy cost balancing account. This factor will reflect any modifications

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

made due to prudence reviews.

I = Interest

COST ADJUSTMENT FACTOR

The ~~Cost Adjustment Factor (~~"CAF~~")~~ is the result of dividing the FAC by estimated recovery period Missouri net system input (NSI) kWh, rounded to the nearest $.00000. The CAF shall be adjusted to reflect the differences in line losses that occur at primary and above voltage and secondary voltage by multiplying the average cost at the generator by 1.0520 and 1.0728, respectively. Any CAF authorized by the Commission shall be billed based upon customers' energy usage on and after the authorized effective date of the CAF. The formula and components are displayed below.

$$CAF = \frac{FAC}{S}$$

Where:

S = Forecasted Missouri NSI kWh for the Recovery Period. Missouri NSI kWh is calculated as:

Missouri NSI = Forecasted NSI * Forecasted Missouri ~~Retail~~retail kWh sales / Forecasted ~~Total System~~total system kWh sales

Where Forecasted Total System kWh Sales excludes off-system sales

~~PRUDENCE REVIEW~~

~~There shall be a periodic review of fuel and energy costs subject to the FAC, and a comparison of the FAC revenue collected. In addition, the review shall determine if the costs subject to the FAC were prudently incurred by the Company. FAC cost and the FAC charges are subject to adjustment if found to be imprudent by the Commission. The normal true-up of over/under recovery of FAC cost occurs at the end of each Recovery period. Prudence reviews shall occur no less frequently than at eighteen (18) month internvals.~~

TRUE-UP OF FAC

Within one month after completion of each Recovery Period, the Company will make a true-up filing detailing the revenues billed in the Recovery Period to the revenues authorized for collection in the Recovery Period, i.e. the true-up adjustment. Any true-up adjustments or refunds shall be reflected in item C above and shall include interest calculated as provided for in item I above.

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

(Applicable to Service Provided on Month Day, 2010 and Thereafter)

ACCUMULATION PERIOD ENDING, ~~Feb-28-2009~~MON-DAY-YEAR

1. Total energy cost (F + P + E ~~–~~ _ O~~)~~ ~~$74,904,898~~ - R) $00,000,000

2. Base energy cost (B) $~~75,974,254~~00,000,000

3. Missouri ~~Energy Ratio~~energy ratio (J) 0.~~8205~~0000

4. Fuel ~~Cost Recovery~~ cost recovery [(F + P + E ~~–~~ _ O - R) – B] * J ~~$ (832,640)~~ * 0.95 $ 000,000

~~5.~~Adj for ~~Over/Under~~over/under recovery for the

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

5. ~~Recovery~~
recovery period ending 00-00-0000 (C) $0

6. Interest (I)
$~~12,197~~00,000

7. Fuel Adjustment Clause (FAC) $
(~~820,443)~~000,000)

8. Forecasted Missouri NSI for the ~~Recovery Period~~ recovery period (S)
~~2,238,156,299~~0,000,000,000

9. Cost Adjustment Factor (CAF) to be applied to bills beginning 00-00-0000 $(0.~~00037~~00000) / kWh

10. CAF - Primary and above (Line 9 x Primary Expansion Factor) $(0.~~00039~~00000) / kWh

11. CAF - Seconday (Line 9 x Secondary Expansion Factor) $(0.~~00040~~00000) / kWh

Primary Expansion Factor = 1.~~0520~~0502
Secondary Expansion Factor = 1.~~0728~~0686

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

(Applicable to Service Provided Prior to Month Day, 2010)

The two six-month accumulation periods, the two six-month recovery periods and filing dates will be as follows:

	ACCUMULATION PERIOD	RECOVERY PERIOD	ACCUMULATION PERIOD	RECOVERY PERIOD
	SEPTEMBER	JUNE	MARCH	DECEMBER
	OCTOBER	JULY	APRIL	JANUARY
	NOVEMBER	AUGUST	MAY	FEBRUARY
	DECEMBER	SEPTEMBER	JUNE	MARCH
	JANUARY	OCTOBER	JULY	APRIL
	FEBRUARY	NOVEMBER	AUGUST	MAY
Filing date:		April 1st		October 1st

DEFINITIONS

ACCUMULATION PERIOD:
The six calendar months during which the actual costs subject to this rider will be accumulated for purposes of determining the Cost Adjustment Factor.

RECOVERY PERIOD:
The billing months during which Cost Adjustment Factor (CAF) is applied to retail customer billings on a per kilowatt-hour (kWh) basis.

COSTS:
Costs eligible for Fuel Adjustment Clause (FAC) will be the Company's total book costs as allocated to Missouri for fuel consumed in Company generating units, including the costs associated with the Company's fuel hedging program; purchased power energy charges, including applicable transmission fees; Southwest Power Pool variable costs, and emission allowance costs during the Accumulation Period. Eligible costs do not include the purchased power demand costs. These costs will be off-set by off-system sales margin and any emission allowance revenues collected in the Accumulation Period.

BASE COST:
Company generated energy and purchased energy cost per kWh at the generator, established by season in the most recent base rate case. The base cost per kWh for the summer months of June through September is $0.03001. For all other months the base cost per kWh is $0.02744.

APPLICATION

FUEL ADJUSTMENT CLAUSE
The average price per kWh of electricity generated or purchased will be adjusted subject to application of the FAC, and approved by the Public Service Commission. The price will reflect 95 percent of the accumulation period costs either above or below base costs specified below for:

1. fuel consumed in Company electric generating plants,

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

2. purchased energy (excluding demand),

THE EMPIRE DISTRICT ELECTRIC COMPANY

P.S.C. Mo. No.	5	Sec.	4	~~6~~7th	Revised Sheet No.	17a
Canceling P.S.C. Mo. No.	5	Sec.	4	~~5~~6th	Revised Sheet No.	17a

For ALL TERRITORY

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

(Applicable to Service Provided Prior to Month Day, 2010)

3. off-system sales margin,

4. net of emission allowance costs and revenues.

It will also include:

5. an adjustment for the prior recovery period sales variation.

6. Interest: Interest at a rate equal to the Company's short-term interest rate will be applied to the average monthly deferred electric energy costs and will be accumulated during the accumulation period. Deferred electric energy cost shall be determined monthly. The monthly deferred amount may be negative or positive during the accumulation period.

The formula and components are displayed below.

$$FAC = \{[(F + P + E - O - B) * J] * 0.95\} + C + I$$

Where:

F = Actual total net system input cost of fuel - FERC Accounts 501 & 547

P = Actual total net system input cost of purchased energy - FERC Account 555 (excluding purchase power demand charges)

E = Actual total system net emission allowance cost and revenues - FERC Accounts 509 & 254.103

O = Actual total system off-system sales margin

B = Base cost of fuel and purchased power energy calculated as follows:

1. For the months of June through September	B = (NSI kWh * $0.03001)
2. For all other months	B = (NSI kWh * $0.02744)

J = Missouri energy ratio calculated as follows:

$$\text{Missouri Energy Ratio} = \frac{\text{Missouri Retail kWh sales}}{\text{Total System kWh sales}}$$

Where Total System kWh Sales excludes off-system sales

C = True-up of Under/Over recovery of FAC balance from prior Recovery period as included in

DATE OF ISSUE ~~August 8, 2008~~ DATE EFFECTIVE ~~September 1, 2008~~
ISSUED BY Kelly S. Walters, Vice President, Joplin, MO

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

the deferred energy cost balancing account. This factor will reflect any modifications

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

(Applicable to Service Provided Prior to Month Day, 2010)

made due to prudence reviews

I = Interest

COST ADJUSTMENT FACTOR

The Cost Adjustment Factor (“CAF”) is the result of dividing the FAC by estimated recovery period Missouri net system input (NSI) kWh, rounded to the nearest $.00000. The CAF shall be adjusted to reflect the differences in line losses that occur at primary and above voltage and secondary voltage by multiplying the average cost at the generator by 1.0520 and 1.0728, respectively. Any CAF authorized by the Commission shall be billed based upon customers’ energy usage on and after the authorized effective date of the CAF. The formula and components are displayed below.

$$CAF = \frac{FAC}{S}$$

Where:

S = Forecasted Missouri NSI kWh for the Recovery Period. Missouri NSI kWh is calculated as:

$$\text{Missouri NSI} = \text{Forecasted NSI} * \frac{\text{Forecasted Missouri Retail kWh sales}}{\text{Forecasted Total System kWh sales}}$$

Where Forecasted Total System kWh Sales excludes off-system sales

PRUDENCE REVIEW

There shall be a periodic review of fuel and energy costs subject to the FAC, and a comparison of the FAC revenue collected. In addition, the review shall determine if the costs subject to the FAC were prudently incurred by the Company. FAC cost and the FAC charges are subject to adjustment if found to be imprudent by the Commission. The normal true-up of over/under recovery of FAC cost occurs at the end of each Recovery period. Prudence reviews shall occur no less frequently than at eighteen (18) month internvals.

ACCUMULATION PERIOD ENDING, Feb-28-2009

1.	Total energy cost (F + P + E - O)	$74,904,898
2.	Base energy cost (B)	$75,974,254
3.	Missouri Energy Ratio (J)	0.8205
4.	Fuel Cost Recovery [(F + P + E - O) – B] * J	$ (832,640)

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

5. Adj for Over/Under recovery for the

THE EMPIRE DISTRICT ELECTRIC COMPANY

P.S.C. Mo. No. 5 Sec. 4 ~~6~~7th Revised Sheet No. 17c

Canceling P.S.C. Mo. No. 5 Sec. 4 ~~5~~6th Revised Sheet No. 17c

For ALL TERRITORY

FUEL ADJUSTMENT CLAUSE
SCHEDULE FAC

(Applicable to Service Provided Prior to Month Day, 2010)

	Recovery period ending 00-00-0000 (C)	$0
6.	Interest (I)	$12,197
7.	Fuel Adjustment Clause (FAC)	$ (820,443)
8.	Forecasted Missouri NSI for the Recovery Period (S)	2,238,156,299
9.	Cost Adjustment Factor (CAF) to be applied to bills beginning 00-00-0000	$(0.00037) / kWh
10.	CAF - Primary and above (Line 9 x Primary Expansion Factor)	$(0.00039) / kWh
11.	CAF - Seconday (Line 9 x Secondary Expansion Factor)	$(0.00040) / kWh

Primary Expansion Factor = 1.0520
Secondary Expansion Factor = 1.0728

DATE OF ISSUE ~~August 8, 2008~~ DATE EFFECTIVE ~~September 1, 2008~~
ISSUED BY Kelly S. Walters, Vice President, Joplin, MO