

Exhibit No.:
Issues: Fuel Adjustment Clause
Witness: Matthew J. Barnes
Sponsoring Party: MO PSC Staff
Type of Exhibit: Rebuttal Testimony
Case Nos.: ER-2012-0345
Date Testimony Prepared: January 16, 2013

MISSOURI PUBLIC SERVICE COMMISSION

REGULATORY REVIEW DIVISION

REBUTTAL TESTIMONY

OF

MATTHEW J. BARNES

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2012-0345

*Jefferson City, Missouri
January 2013*

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of The Empire District)
Electric Company of Joplin, Missouri)
Tariffs Increasing Rates for Electric)
Service Provided to Customers in the)
Missouri Service Area of the Company)

Case No. ER-2012-0345

AFFIDAVIT OF MATTHEW J. BARNES

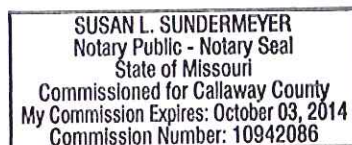
STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Matthew J. Barnes, of lawful age, on his oath states: that he has participated in the preparation of the following Rebuttal Testimony in question and answer form, consisting of 2 pages of Rebuttal Testimony to be presented in the above case, that the answers in the following Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.



Matthew J. Barnes

Subscribed and sworn to before me this 15th day of January, 2013.




Notary Public

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REBUTTAL TESTIMONY

OF

MATTHEW J. BARNES

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2012-0345

11 Q. Please state your name and business address.

12 A. My name is Matthew J. Barnes and my business address is Missouri Public
13 Service Commission, P.O. Box 360, Jefferson City, MO 65102.

14 Q. What is your position at the Commission?

15 A. I am a Utility Regulatory Auditor IV in the Energy Unit of the Regulatory
16 Review Division.

17 Q. Are you the same Matthew J. Barnes that contributed to Staff's Revenue
18 Requirement Cost of Service Report ("COS") filed on November 30, 2012 and to Staff's
19 Class Cost of Service Rate Design Report ("CCOS") filed on December 13, 2012?

20 A. Yes, I am.

21 Q. What is the purpose of your rebuttal testimony?

22 A. The purpose of my rebuttal testimony is to make corrections to Staff's
23 calculation of the net base energy cost per kWh for The Empire District Electric Company's
24 ("Empire") Fuel Adjustment Clause ("FAC") contained in the CCOS.

25 Q. What corrections does Staff make to its calculation of Empire's net base
26 energy cost per kWh in the CCOS?

Rebuttal Testimony of
Matthew J. Barnes

1 A. Staff removed fixed costs included in its calculation of the net base energy cost
2 per kWh in the CCOS, since fixed costs should not be included in the FAC. I removed some
3 fixed costs from the following cost categories:

- 4 1. Natural gas transportation;
- 5 2. Natural gas storage;
- 6 3. Plum Point purchased power agreement demand charges; and
- 7 4. Transmission costs.

8 Q. Were there costs that Staff inadvertently excluded that should have been
9 included in its calculation of net base energy cost per kWh?

10 A. Yes. Staff inadvertently excluded operation and maintenance costs for
11 Empire's 50 MW Plum Point purchased power contract.

12 Q. What is Empire's net base energy cost per kWh after the corrections?

13 A. Empire's net base energy cost per kWh after corrections is \$0.02786.

14 Q. What is the difference between Staff's original net base energy cost per kWh
15 filed in the CCOS and the net base energy cost per kWh for this rebuttal testimony?

16 A. Staff's net base energy cost per kWh filed in its CCOS was \$0.03223. The net
17 base energy cost per kWh for this rebuttal testimony is \$0.02786 for a decrease of \$0.00437
18 per kWh.

19 Q. Did Staff update Empire's tariff sheets that were filed in the CCOS?

20 A. Yes. Attached are Empire's updated tariff sheets to reflect the net base energy
21 cost per kWh.

22 Q. Does this conclude your testimony?

23 A. Yes.

THE EMPIRE DISTRICT ELECTRIC COMPANY

P.S.C. Mo. No. 5 Sec. 4 1st Revised Sheet No. 17h

Canceling P.S.C. Mo. No. 5 Sec. 4 Original Sheet No. 17h

For ALL TERRITORY

FUEL & PURCHASE POWER ADJUSTMENT CLAUSE
RIDER FAC
For service on and after XX-XX-XXXX.

The two six-month accumulation periods, the two six-month recovery periods and filing dates are set forth in the following table:

<u>Accumulation Periods</u>	<u>Filing Dates</u>	<u>Recovery Periods</u>
September - February	By April 1	June - November
March - August	By October 1	December – May

The Company will make a Fuel Adjustment Rate (“FAR”) filing by each Filing Date. The new FAR rates for which a filing is made will be applicable starting with the recovery period that begins following the Filing Date. All FAR 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 and revenues subject to this rider will be accumulated for the purpose of determining the FAR.

RECOVERY PERIOD:

The billing months during which a FAR is applied to retail customer usage on a per kilowatt-hour (kWh) basis.

BASE ENERGY COSTS AND REVENUES:

Base energy costs are ordered by the Commission in the last rate case consistent with the costs and revenues included in the calculation of the Fuel and Purchase Power Adjustment (“FPA”).

BASE FACTOR (“BF”):

The base factor is the base energy cost divided by net generation kWh determined by the Commission in the last general rate case. BF = \$0.02786 per kWh for each accumulation period.

APPLICATION

FUEL & PURCHASE POWER ADJUSTMENT

$$FPA = \{[(FC + PP + E + TC - OSSR - REC - B) * J] * 0.85\} + T + I + P$$

Where:

FC = Fuel Costs Incurred to Support Sales:

The following costs reflected in Federal Energy Regulatory Commission (FERC) Account Number 501: coal commodity and railroad transportation, switching and demurrage charges,

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applicable taxes, natural gas costs, alternative fuels (i.e. tires, bio- fuel and landfill gas), fuel additives, Btu adjustments assessed by coal suppliers, quality adjustments assessed by coal suppliers, fuel hedging costs, fuel adjustments included in commodity and transportation costs, broker commissions and fees associated with price hedges, oil costs, propane costs, combustion product disposal revenues and expenses, consumable costs related to Air Quality Control Systems (AQCS) operation, such as ammonia, lime, limestone, powder activated carbon, urea, sodium bicarbonate, and trona and settlement proceeds, insurance recoveries, subrogation recoveries for increased fuel expenses in Account 501.

The following costs reflected in FERC Account Number 547: natural gas generation costs related to commodity, oil, transportation, storage, fuel losses, hedging costs for natural gas, oil, and natural gas used to cross-hedge purchased power, fuel additives, and settlement proceeds, insurance recoveries, subrogation recoveries for increased fuel expenses, broker commissions and fees.

PP = Purchased Power costs:

The following costs or revenues reflected in FERC Account Number 555: purchased power costs, purchased power demand costs associated with purchased power contracts with a duration of one year or less, 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 (see note A. below)

E = Net Emission Costs:

The following costs and revenues reflected in FERC Account Numbers 509, 411.8 and 411.9 (or any other account FERC may designate for emissions expenses in the future): emission allowance costs offset by revenues from the sale of emission allowances including any associated hedging costs, broker commissions, fees, commodity based services, and margins.

TC = Transmission Costs:

The following costs reflected in FERC Account Number 565 (excluding Base Plan Funding costs): transmission costs that are necessary to receive purchased power to serve native load and transmission costs that are necessary to make off-system sales.

OSSR = Revenue from Off-System Sales:

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RIDER FAC
For service on and after XX-XX-XXXX.

A. 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 Empire, hedging costs, SPP EIS market charges, and SPP Integrated Market revenues (see note A. below)

REC = Renewable energy credit revenue:

Revenues reflected in FERC account 509 from the sale of Renewable Energy Credits that are not needed to meet the Renewable Energy Standard.

Hedging Costs = Hedging costs are defined as realized losses and costs (including broker commission fees and margins) minus realized gains associated with mitigating volatility in the Company's cost of fuel, fuel additives, fuel transportation, emission allowances, transmission and purchased power costs, including but not limited to, the Company's use of derivatives whether over-the counter or exchange traded including, without limitation, futures or forward contracts, puts, calls, caps, floors, collars, and swaps.

Note A. In anticipation of the implementation of the SPP Integrated Market, the Company and the Missouri Public Service Commission Staff (Staff) will meet quarterly to discuss and review the charge types proposed by SPP and the new market. The Company will provide a listing of charge types and definitions to discuss. Staff and other interested intervenors will provide feedback relating to those costs included in the Fuel Adjustment Clause. Documentation of the quarterly meetings will be filed with the most closely following monthly Section 5 report to be filed with the Commission.

Should FERC require any item covered by factors FC, PP, E or OSSR to be recorded in an account different than the FERC accounts listed in such factors, such items shall nevertheless be included in factor FC, PP, E or OSSR. In the month that the Company begins to record items in a different account, the Company will file with the Commission the previous account number, the new account number and what costs or revenues that flow through this Rider FAC are to be recorded in the account.

B = Net base energy cost is calculated as follows:

$$B = (S_{AP} * \$0.02786)$$

S_{AP} = Actual net system input at the generation level for the accumulation period.

For ALL TERRITORY

FUEL & PURCHASE POWER ADJUSTMENT RIDER FAC
For service on and after XX-XX-XXXX.

$$J = \frac{\text{Missouri retail kWh sales}}{\text{Total system kWh sales}}$$

Where Total system kWh sales includes sales to Missouri municipalities that are associated with Empire and excludes off-system sales.

T = True-up of over/under recovery of FAC balance from prior recovery period as included in the deferred energy cost balancing account. Adjustments by Commission order pursuant to any prudence review shall also be placed in the FPA for collection unless a separate refund is ordered by the Commission.

I = Interest applicable to (i) the difference between Total energy cost (FC + PP + E + TC – OSSR – REC) and Net base energy cost (“B”) multiplied by the Missouri energy ratio (“J”) for all kWh of energy supplied during an AP until those costs have been recovered; (ii) refunds due to prudence reviews (“P”), if any; and (iii) all under- or over-recovery balances created through operation of this FAC, as determined in the true-up filings (“T”) provided for herein. Interest shall be calculated monthly at a rate equal to the weighted average interest paid on the Company’s short-term debt, applied to the month-end balance of items (i) through (iii) in the preceding sentence.

P = Prudence disallowance amount, if any, as defined below.

FUEL ADJUSTMENT RATE

The FAR is the result of dividing the FPA by estimated recovery period S_{RP} kWh, rounded to the nearest \$0.00000. The FAR 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 1.0502 and 1.0686, respectively. Any FAR authorized by the Commission shall be billed based upon customers’ energy usage on and after the authorized effective date of the FAR. The formula for the FPA is displayed below.

$$FAR = \frac{FPA}{S_{RP}}$$

Where:

S_{RP} = Forecasted Missouri NSI kWh for the recovery period.

$$= \text{Forecasted total system NSI} * \frac{\text{Forecasted Missouri retail kWh sales}}{\text{Forecasted total system kWh sales}}$$

Where Forecasted total system NSI kWh sales includes sales to Missouri municipalities that are associated with Empire and excludes off-system sales.

THE EMPIRE DISTRICT ELECTRIC COMPANY

P.S.C. Mo. No. 5 Sec. 4 1st Revised Sheet No. 17j

Canceling P.S.C. Mo. No. 5 Sec. 4 Original Sheet No. 17j

For ALL TERRITORY

FUEL & PURCHASE POWER ADJUSTMENT RIDER FAC
For service on and after XX-XX-XXXX.

PRUDENCE REVIEW

Prudence reviews of the costs subject to this FAC shall occur no less frequently than every eighteen months, and any such costs which are determined by the Commission to have been imprudently incurred or incurred in violation of the terms of this rider shall be returned to customers. Adjustments by Commission order, if any, pursuant to any prudence review shall be included in the FAR calculation in P above unless a separate refund is ordered by the Commission. Interest on the prudence adjustment will be included in I above.

TRUE-UP OF FPA

In conjunction with an adjustment to its FAR, the Company will make a true-up filing with an adjustment to its FAC on the first Filing Date that occurs after completion of each recovery period. The true-up adjustment shall be the difference between the revenues billed and the revenues authorized for collection during the true-up recovery period, i.e. the true-up adjustment. Any true-up adjustments or refunds shall be reflected in item T above and shall include interest calculated as provided for in item I above.

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THE EMPIRE DISTRICT ELECTRIC COMPANY

P.S.C. Mo. No. 5 Sec. 4 3rd Revised Sheet No. 17k

Canceling P.S.C. Mo. No. 5 Sec. 4 2nd Revised Sheet No. 17k

For ALL TERRITORY

**FUEL & PURCHASE POWER ADJUSTMENT
RIDER FAC**
For service on and after XX-XX-XXXX.

	Accumulation Period Ending:		Month, Day, Year
1	Total Energy Cost(TEC) = (FC+PP+E+TC-OSSR-REC)		
2	Net Base Energy Cost (B)	-	
	2.1 Base Factor (BF)		
	2.2 Accumulation Period NSI (S _{AP})		
3	(TEC-B)		
4	Missouri Energy Ratio (J)	*	%
5	(TEC-B)*J		
6	Fuel Cost Recovery	*	%
7	(TEC-B)*J * 0.85		
8	True-Up Amount (T)	+	
9	Prudence Adjustment Amount (P)	+	
10	Interest (I)	+	
11	Fuel and Purchased Power Adjustment (FPA)	=	
12	Forecasted Missouri NSI (S _{RP})	÷	
13	Current Period Fuel Adjustment Rate (FAR) to be applied to bills Beginning XX-XX-XXXX	=	
14	Current Period FAR _{Prim} = FAR x VAF _{Prim}		
15	Prior Period FAR _{Prim}	+	
16	Current Annual FAR _{Prim}		
17	Current Period FAR _{Sec} = FAR x VAF _{Sec}		
18	Prior Period FAR _{Sec}	+	
19	Current Annual FAR _{Sec}		
	VAF _{Prim} = 1.0502		
	VAF _{Sec} = 1.0686		

Primary Voltage Adjustment Factor (VAF_{PRIM}) = 1.0502
Secondary Voltage Adjustment Factor (VAF_{SEC})= 1.0686

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