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Issues: Fuel and Purchased Power
Witness: Matthew J. Barnes
Sponsoring Party: MO PSC Staff
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Case No.: ER-2010-0130
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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

SURREBUTTAL TESTIMONY

OF

MATTHEW J. BARNES

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2010-0130

**Jefferson City, Missouri
April 2010**

**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 following Surrebuttal Testimony in question and answer form, consisting of 9 pages of Surrebuttal Testimony to be presented in the above case, that the answers in the following Surrebuttal 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 22nd day of April, 2010.



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



Notary Public

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OF
MATTHEW J. BARNES
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SURREBUTTAL TESTIMONY

OF

MATTHEW J. BARNES

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2010-0130

Q. Please state your name and business address?

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

Q. What is your position with the Staff (Staff) of the Missouri Public Service Commission (Commission)?

A. I am a Utility Regulatory Auditor IV in the Energy Resource Analysis Section of the Energy Department of the Utility Operations Division.

Q. Are you the same Matthew J. Barnes that filed rebuttal testimony on April 2, 2010, and contributed to the Staff’s Cost of Service Report and the Staff’s Class Cost of Service Report?

A. Yes, I am.

Executive Summary

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of this surrebuttal testimony is to address the rebuttal testimony of The Empire District Electric Company (Empire or Company) witnesses Mr. Todd Tarter and Mr. W. Scott Keith in which they state concerns with Staff’s change in the base cost of fuel and purchased power for the Company’s Fuel Adjustment Clause (FAC) in the Staff’s Cost of Service Report filed in this case. I will also address Mr.

1 Keith's concerns with Staff's exemplar FAC tariff sheets in the Staff's Class Cost of
2 Service Report filed in this case.

3 **Staff's Response to Mr. Tarter's Rebuttal Testimony**

4 Q. In Mr. Tarter's rebuttal testimony he claims that it is not necessary to
5 rebase the FAC, since the actual costs during the test year approximately match the
6 current FAC base cost of fuel and purchased power (Tarter Rebuttal Page 1, Line 16
7 through Page 2, Line 9). Do you agree?

8 A. No. The FAC base cost of fuel and purchased power must be updated
9 every rate case to reflect the fuel and purchased power costs to be included in the total
10 revenue requirement approved in that case. In his surrebuttal testimony, Staff witness
11 Shawn Lange describes why fuel and purchased power costs should be re-calculated for
12 every rate case.

13 Q. Do you have an example of what would happen if the Commission did not
14 rebase the FAC in this case?

15 A. Yes. Schedule MJB-1 is a spreadsheet that shows a hypothetical fuel and
16 purchased power cost example with three scenarios. In these scenarios, the prior rate
17 case fuel and purchased power costs are higher than the fuel and purchased power costs
18 determined in the current rate case. The three scenarios in the example are:

19 Scenario (1). No FAC.

20 Scenario (2). FAC with FAC base cost of fuel and purchased
21 power set in prior case.

22 Scenario (3). FAC with FAC base cost of fuel and purchased
23 power set using FAC costs in revenue requirement. This is the
24 methodology recommended by Staff.

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1 The top table in Schedule MJB-1 shows the total revenues billed for the three
2 different scenarios. The actual fuel costs in the future were greater than the fuel costs in
3 the revenue requirement if there is no sharing mechanism. In Scenarios (1) and (2), the
4 total revenues collected would be less than the costs incurred. Scenario (3), Staff's
5 recommendation, is the only scenario in which the revenues that the utility bills equal the
6 costs incurred.

7 Q. In Mr. Tarter's rebuttal testimony he states that the Jeffrey Energy Center
8 contract and the Plum Point generating unit were not included in the Staff's fuel run and
9 as a result it is not representative of Empire's generating mix that will be in place when
10 rates are set in this case (Tarter Rebuttal Page 4, Lines 20 through 23 and Page 5, Lines 1
11 through 5). How do you respond?

12 A. Staff's direct-filed fuel run was not designed to capture events outside of
13 the test year period. However, Staff will conduct a true-up fuel run, which it will not
14 model the Jeffrey Energy Center contract, since it is due to expire in May 2010. If Plum
15 Point is determined to be in service on or before August 15, 2010¹, Staff will include the
16 Plum Point generating unit in its true-up fuel run.

17 Q. Will Staff's true-up fuel run likely indicate different base fuel and
18 purchased power costs for calculating Empire's FAC rates?

19 A. Yes, but Staff does not know at this time if the base fuel and purchased
20 power costs will increase or decrease relative to current FAC rates with the inclusion of
21 the Plum Point generating unit and the removal of the Jeffrey Energy Center contract.
22 However, the fuel and purchased power costs used to determine the true-up revenue

¹ As described in the Stipulation and Agreement Section B, Subsection 2 Part (ii) filed in this case February 25, 2010.

1 requirement should be the same costs used to determine the FAC base cost of fuel and
2 purchased power.

3 **Staff's Response to Mr. W. Scott Keith's Rebuttal Testimony**

4 Q. Mr. Keith stated in his rebuttal testimony that 100 percent of Empire's
5 Renewable Energy Credits (REC) revenues should either be included in the revenue
6 requirement or the FAC base cost of fuel and purchased power, but not both as he claims
7 this would be double-counting (Keith Rebuttal Page 3, Lines 8 through Page 4, Line 12).
8 Is Mr. Keith's characterization of Staff's recommendation accurate?

9 A. No. Including REC revenues in the revenue requirement and the FAC are
10 necessary to pass the marginal variations in REC revenues through the FAC. While there
11 would be double-counting if the revenues were collected through two separate rates -
12 "fuel" and "non-fuel" rates, which is not how Empire's tariff operates. If, instead of a
13 FAC, Empire had distinct "fuel" and "non-fuel" rates and that the REC revenues off-set
14 both fuel and non-fuel costs, then there would be double-counting as described by Mr.
15 Keith.

16 Q. Since Staff is asking the Commission to approve a "FAC base" cost of
17 fuel and purchased power, isn't it asking the Commission to approve a "fuel" rate much
18 like the purchased gas adjustment (PGA) rates of the investor-owned natural gas utilities?

19 A. No. The recovery of fuel costs through an FAC is different for electric
20 utilities than the pass-through of natural gas costs through a PGA for natural gas utilities.
21 For natural gas utilities, the PGA is designed to recover the entire cost of the natural gas.
22 Non-fuel costs are recovered through separate rates, and no fuel costs are included in
23 those rates.

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1 For the electric utilities with an FAC, rates are set just as they were before they
2 had a FAC - to give the electric utility the opportunity to recover all of its costs
3 (including fuel and purchased power costs) and the opportunity to earn a fair rate of
4 return as approved by the Commission. The FAC is designed to collect/return the
5 difference between the base fuel and purchased power costs and the actual fuel and
6 purchased power costs incurred. The FAC base cost of fuel and purchased power is a
7 portion of the total revenue requirement.

8 Both Staff and Empire recommend this type of rate design in this rate case. With
9 this type of rate design it is important to set the FAC base cost of fuel and purchased
10 power using the same costs, revenues, and usage that are used in setting the non-FAC
11 rates. Otherwise the utility will not completely recover/return the difference between the
12 fuel and purchased power costs in the rate case and actual fuel and purchased power costs
13 incurred. An illustration of these relationships is shown on Schedule MJB-2.

14 Q. Do you have an example of what would happen if the REC's are included
15 in the revenue requirement and the FAC?

16 A. Yes. A spreadsheet presenting the effects of hypothetically including the
17 REC's in the revenue requirement and the FAC along with two other scenarios are shown
18 in Schedule MJB-3.

19 Q. Please summarize Schedule MJB-3.

20 A. Schedule MJB-3 presents two hypothetical examples with three different
21 scenarios each. Example 1 shows the actual REC revenues equal to the Rate Case REC
22 revenues in the revenue requirement. Example 2 shows the actual REC revenues less

1 than the Rate Case REC revenues in the revenue requirement. The three scenarios in
2 each example are:

3 Scenario (1). Rate case REC revenues in the revenue requirement
4 but not in the FAC at all. This is how the REC Revenues were
5 treated in the last rate case.

6 Scenario (2). Rate case REC revenues not in the revenue
7 requirement but in FAC Base. This is what Empire is requesting.

8 Scenario (3). REC revenues in the revenue requirement, FAC
9 Base, and Actual FAC for the Accumulation Period. This is what
10 Staff is recommending as the appropriate way to include the REC
11 revenues.

12 Q. Why is Staff supporting the methodology described in Scenario (3)?

13 A. As shown in the hypothetical Example 1 on Schedule MJB-3 where the
14 actual REC revenues equal the rate case REC revenues, Empire would recover the
15 appropriate revenues if REC revenues are in the revenue requirement and FAC base cost
16 of fuel and purchased power, i.e., if the actual REC revenues received during an
17 accumulation period were exactly equal to the rate case REC revenue, the total revenue
18 billed for Scenario (1) is the same as Scenario (3).

19 The Total Revenues Billed in Scenario (2), which is Mr. Keith's proposal, is
20 higher than the Total Revenues billed in Scenario (1), i.e., Empire would bill for more
21 revenue when the actual REC revenues were equal to the rate case REC revenues.

22 Example 2 on Schedule MJB-3 shows what would happen if the actual REC
23 revenues were less than the rate case REC revenues. In this example, the methodology
24 recommended by Empire Scenario (2) would result in billed revenues being higher than
25 both Scenarios (1) and (3).

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1 These two examples show why Staff's recommended methodology of accounting
2 for REC revenues in the revenue requirement, in the FAC Base, and in the actual FAC for
3 the accumulation period is the proper way to include REC revenues in the FAC.

4 Q. Mr. Keith states in his rebuttal testimony that the title boxes located at the
5 top of each tariff sheet are redundant and confusing (Keith Rebuttal Page 5, Lines 4
6 through 15). What is Staff's response?

7 A. Staff has had discussions with Empire concerning the inclusion of this
8 language in the title box of the Company's FAC tariff sheets. The intention of adding
9 dates in the title box of the tariff sheets is to show that there is a set of tariff sheets that
10 apply to service taken under the current FAC prior to the date of a Commission order in
11 this case and a separate set of tariff sheets for service taken under the revised FAC on the
12 date of and following the date of a Commission order in this case. If the Commission
13 order is effective in the middle of an accumulation period or recovery period, the
14 appropriate FAC tariff sheets for the FAC adjustment process, FAC true-up process, and
15 FAC prudence review process will be determined from the title box information and not
16 from the effective date of the tariff filing sheets. Staff has used this method with the
17 other utilities and it has reduced confusion.

18 Q. Mr. Keith states in his rebuttal testimony that the language in the exemplar
19 tariff sheets concerning workpaper support in electronic format is not needed because the
20 Commission's rule already governs the filing of workpapers (Keith Rebuttal Page 6, Line
21 11 through Page 7 Line 3). What is Staff's response?

22 A. Staff has 30 days to complete an analysis and file a recommendation in
23 response to each Empire FAC filing. When Empire files a change to its FAC, the

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1 workpapers are filed in PDF format, making it impossible to see the formulas that support
2 the FAC calculation.

3 The Commission, in the FAC rules, anticipated that additional
4 requirements/filings may be needed as the FAC process evolved. For example 4 CSR
5 240-3.161(3)(T), (4)(E), (5)(M), (7)(A)1.(H), (8)(A)4., and (8)(B)4 all require the utility
6 to provide any additional information ordered by the Commission. To facilitate a
7 smoother process and allow adequate time for Staff to complete its analysis within the
8 time frame the Commission rules allow, which is 30 days from the date of filing, Staff
9 recommends the Commission order Empire to also file the supporting FAC workpapers
10 in Excel format with formulas intact either in EFIS, an email to John Rogers, the
11 Manager of the Resource Analysis Section, or both so Staff will not have to send a data
12 request and wait for a response.

13 Q. Mr. Keith proposes to modify Staff's recommended billing language from
14 "Fuel and Purchased Power Adjustment" on customer bills to the abbreviated language
15 "Fuel and Purchased Power Adj." (Keith Rebuttal Page 7, Lines 7 through 14). Does
16 Staff have any concerns with Mr. Keith's suggested abbreviation?

17 A. No. Staff has no concerns with Mr. Keith's abbreviated language

18 Q. Mr. Keith states in his rebuttal testimony that Staff requests certain highly
19 confidential information such as internal policies to be kept at Staff's facilities for review
20 and that Staff currently has access to that information without the need for the Company
21 to provide a copy (Keith Rebuttal Page 8, Line 6 through Page 9, Line 6). What is Staff's
22 response?

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1 A. Staff's intent was to have the highly confidential information readily
2 available for review as necessary. Staff has no concerns with reviewing any internal
3 policies at Empire's facilities instead of requiring that information leaving the
4 Company's facilities. Staff has discussed this issue with Empire, and it believes that an
5 agreement has been reached to review the internal policies at Empire facilities.

6 Q. Does this conclude your surrebuttal testimony?

7 A. Yes it does.

Hypothetical Fuel Cost

Assumptions:

Prior Rate Case FAC base higher than costs in current rate case.

Current Rate Case:

| | |
|--------------------------------------|---------------|
| Revenue Requirement | \$ 11,000,000 |
| FAC Costs in Revenue Requirement | \$ 6,000,000 |
| Non-FAC Costs in Revenue Requirement | \$ 5,000,000 |

Previous FAC Base:

\$ 6,500,000

Actual FAC for Accumulation Period:

\$ 7,000,000

Scenarios:

- (1) No FAC
- (2) FAC with FAC base set in prior case
- (3) FAC with FAC base set using FAC costs in Revenue Requirement

No Sharing Mechanism

| Scenario | (1) | (2) | (3) |
|------------------------|---------------|---------------|---------------|
| Revenue Requirement | \$ 11,000,000 | \$ 11,000,000 | \$ 11,000,000 |
| FAC Base | | \$ 6,500,000 | \$ 6,000,000 |
| Cost Adjustment | | \$ 500,000 | \$ 1,000,000 |
| Total Revenues Billed | \$ 11,000,000 | \$ 11,500,000 | \$ 12,000,000 |
| % Fuel Costs recovered | 85.71% | 92.86% | 100.00% |

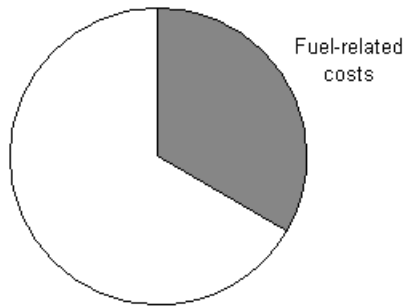
95/5 Sharing Mechanism

| Scenario | (1) | (2) | (3) |
|------------------------|---------------|---------------|---------------|
| Revenue Requirement | \$ 11,000,000 | \$ 11,000,000 | \$ 11,000,000 |
| FAC Base | | \$ 6,500,000 | \$ 6,000,000 |
| Cost Adjustment | | \$ 475,000 | \$ 950,000 |
| Total Revenues Billed | \$ 11,000,000 | \$ 11,475,000 | \$ 11,950,000 |
| % Fuel Costs recovered | 85.71% | 92.50% | 99.29% |

Relationship of Fuel-related Costs included in Permanent Rates to the Fuel Adjustment Clause Base Rates

Permanent Rates

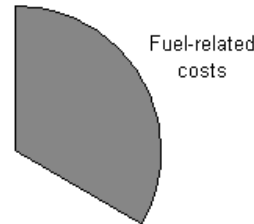
Permanent Rates include all of the utility's costs of doing business, plus its allowed return. Permanent Rates include Fuel-related costs.



\$0.1400 per kWh Permanent Rates include \$0.0400 per kWh in Fuel-related costs.

FAC Base Rates

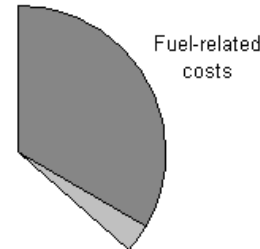
The Fuel Adjustment Clause (FAC) Base Rate is the level of Fuel-related costs included in Permanent Rates.



The FAC Base Rate is \$0.0400 per kWh.

Actual Fuel-related Costs Incurred

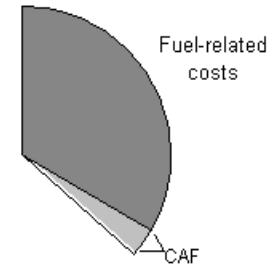
Actual Fuel-related costs incurred in a given 6-month Accumulation Period may be more or less than the Fuel-related costs included in Permanent Rates in the preceding rate case.



In this example, Actual Fuel-related costs incurred in the Accumulation Period were \$0.0440 per kWh.

Cost Adjustment Factor

The Company is allowed to collect 95% of the difference between the FAC Base and the Fuel-related costs incurred in a given 6-month Accumulation Period if that cost was more than the level of Fuel-related costs included in Permanent Rates. The Company is required to return 95% of the difference if the incurred costs were less than those included in Permanent Rates. The resulting Adjustment is the Cost Adjustment Factor (CAF).



$\$0.0440 - \$0.0400 = \$0.0040$. The Company is allowed to apply a CAF to recover 95% of \$0.0040, which is \$0.0038 per kWh.

Hypothetical Renewable Energy Credit Revenues

Example 1: Actual REC Revenues equal to the Rate Case REC Revenues

Assumptions:

Rate Case:

| | |
|---|--------------|
| Revenue Requirement without REC Revenues | \$11,000,000 |
| Rate case REC Revenues | \$ 250,000 |
| Revenue Requirement with Rate Case REC Revenues | \$10,750,000 |

FAC Base:

| | |
|--------------------------------------|--------------|
| FAC Base without REC Revenues | \$ 6,000,000 |
| FAC Base with Rate Case REC Revenues | \$ 5,750,000 |

Actual FAC for Accumulation Period:

| | |
|---------------------------------|--------------|
| Actual FAC without REC Revenues | \$ 7,000,000 |
| Actual REC Revenues | \$ 250,000 |
| Actual FAC with REC Revenues | \$ 6,750,000 |

Example 2: Actual REC Revenues Less than Rate Case REC Revenues

Assumptions:

Rate Case:

| | |
|---|--------------|
| Revenue Requirement without REC Revenues | \$11,000,000 |
| Rate case REC Revenues | \$ 250,000 |
| Revenue Requirement with Rate Case REC Revenues | \$10,750,000 |

FAC Base:

| | |
|--------------------------------------|--------------|
| FAC Base without REC Revenues | \$ 6,000,000 |
| FAC Base with Rate Case REC Revenues | \$ 5,750,000 |

Actual FAC for Accumulation Period:

| | |
|---------------------------------|--------------|
| Actual FAC without REC Revenues | \$ 7,000,000 |
| Actual REC Revenues | \$ 200,000 |
| Actual FAC with REC Revenues | \$ 6,800,000 |

Scenarios:

- (1) Rate Case REC Revenues in Revenue Requirement, No REC revenues in calculation of FAC Base, No REC revenues included in actual FAC for Accumulation Period.
- (2) Rate Case REC Revenues not included in Revenue Requirement but included in calculation of FAC Base. REC revenues included in actual FAC for Accumulation Period.
- (3) Rate Case REC Revenues included in Revenue Requirement and in calculation of FAC Base, REC revenues included in actual FAC for Accumulation Period.

No sharing mechanism

| Scenario | (1) | (2) | (3) |
|-----------------------|--------------|--------------|--------------|
| Revenue Requirement | \$10,750,000 | \$11,000,000 | \$10,750,000 |
| FAC Base | \$ 6,000,000 | \$ 5,750,000 | \$ 5,750,000 |
| Cost Adjustment | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 |
| Total Revenues Billed | \$11,750,000 | \$12,000,000 | \$11,750,000 |

No sharing mechanism

| Scenario | (1) | (2) | (3) |
|-----------------------|--------------|--------------|--------------|
| Revenue Requirement | \$10,750,000 | \$11,000,000 | \$10,750,000 |
| FAC Base | \$ 6,000,000 | \$ 5,750,000 | \$ 5,750,000 |
| Cost Adjustment | \$ 1,000,000 | \$ 1,050,000 | \$ 1,050,000 |
| Total Revenues Billed | \$11,750,000 | \$12,050,000 | \$11,800,000 |

95/5 Sharing Mechanism

| Scenario | (1) | (2) | (3) |
|-----------------------|--------------|--------------|--------------|
| Revenue Requirement | \$10,750,000 | \$11,000,000 | \$10,750,000 |
| FAC Base | \$ 6,000,000 | \$ 5,750,000 | \$ 5,750,000 |
| Cost Adjustment | \$ 950,000 | \$ 950,000 | \$ 950,000 |
| Total Revenues Billed | \$11,700,000 | \$11,950,000 | \$11,700,000 |

95/5 Sharing Mechanism

| Scenario | (1) | (2) | (3) |
|-----------------------|--------------|--------------|--------------|
| Revenue Requirement | \$10,750,000 | \$11,000,000 | \$10,750,000 |
| FAC Base | \$ 6,000,000 | \$ 5,750,000 | \$ 5,750,000 |
| Cost Adjustment | \$ 950,000 | \$ 997,500 | \$ 997,500 |
| Total Revenues Billed | \$11,700,000 | \$11,997,500 | \$11,747,500 |