

Exhibit No.: _____
Issue(s): Fuel Adjustment Clause
Witness/Type of Exhibit: Mantle/Rebuttal
Sponsoring Party: Public Counsel
Case No.: ER-2014-0258

REBUTTAL TESTIMONY

OF

LENA M. MANTLE

Submitted on Behalf of the Office of the Public Counsel

**UNION ELECTRIC
D/B/A
AMEREN MISSOURI**

CASE NO. ER-2014-0258

**

**

Denotes Highly Confidential Information that has been redacted

January 16, 2015

NP

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

In the Matter of Union Electric)
Company d/b/a Ameren)
Missouri's Tariff to Increase Its)
Revenues for Electric Service)

Case No. ER-2014-0258

AFFIDAVIT OF LENA MANTLE

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

Lena Mantle, of lawful age and being first duly sworn, deposes and states:

1. My name is Lena Mantle. I am a Senior Analyst for the Office of the Public Counsel.
2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony.
3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.




Lena Mantle
Senior Analyst

Subscribed and sworn to me this 16th day of January 2015.



JERENE A. BUCKMAN
My Commission Expires
August 23, 2017
Cole County
Commission #13754037



Jerene A. Buckman
Notary Public

My Commission expires August 23, 2017.

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REBUTTAL TESTIMONY

OF

LENA MANTLE

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

CASE NO. ER-2014-0258

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Lena Mantle and my business address is P.O. Box 2230, Jefferson City,
3 Missouri 65102. I am a Senior Analyst for the Office of the Public Counsel (“OPC”).

4 **Q. ARE YOU THE SAME LENA MANTLE THAT PROVIDED DIRECT**
5 **TESTIMONY IN THIS CASE?**

6 A. Yes, I am.

7 **PURPOSE AND RECOMMENDATIONS**

8 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

9 A. In my direct testimony, I provided the Office of Public Counsel’s recommendation that the
10 Commission discontinue Ameren Missouri’s Fuel Adjustment Clause (“FAC”) because
11 Union Electric Company d/b/a Ameren Missouri (“Ameren Missouri”) did not meet the
12 Commission’s minimum filing requirements applicable for the continuation or modification
13 of its FAC. Specifically, Ameren Missouri did not meet the requirement to provide
14 *complete* descriptions of the costs and revenues that it is requesting be included in its FAC.
15 In this rebuttal testimony, I will give the Commission, based on data responses from
16 Ameren Missouri, a list of all of the costs and revenues that Ameren Missouri is requesting
17 be included in its FAC. While I do not have complete definitions of all of the costs and
18 revenues, I will provide to the Commission *limited* definitions of the costs and revenues

1 based on the information provided by Ameren Missouri in the monthly FAC reports it
2 submits to Staff, OPC and other parties.

3 I also will give the Commission information on the test year amounts of the
4 different costs and revenues that Ameren Missouri is proposing be included in its FAC
5 based on the costs and revenues from Ameren Missouri's monthly FAC reports. A
6 consideration of the magnitude of the costs is one of the requirements of the Commission in
7 4 CSR 240-20.090(2)(C) in determining what costs are to be allowed to flow through the
8 FAC. Ameren Missouri did not provide information in its direct testimony on the
9 magnitude of the costs and revenues that it is requesting be included in its FAC.

10 This rebuttal testimony also presents a revision in OPC's recommendation
11 regarding the costs and revenues to be included in the FAC. OPC now recommends that, if
12 the Commission approves the continued use of an FAC for Ameren Missouri, that the FAC
13 include only fuel and purchased power costs, the transportation costs of the fuel,
14 transmission costs of the purchased power and off-system sales revenues. This is
15 consistent with the position of Missouri Industrial Consumers ("MIEC") presented in the
16 direct testimony of James R. Dauphanais. This rebuttal testimony will show that the costs
17 and revenues that OPC and MIEC recommends be included in the FAC make up over 93%
18 of the costs and 90% of the revenues that are in the current FAC.

19 The Commission Staff ("Staff") showed in its Staff Report – Revenue Requirement
20 – Cost of Service filed on December 5, 2014, that even though the Net Base Energy Cost
21 was reset in the last rate case, the Actual Net Energy Costs has been considerably higher
22 than the Net Base Energy Costs. Ideally, if the Net Base Energy Cost is set correctly, the
23 difference between the Net Base Energy Cost and the Actual Net Energy Cost will be small

1 in the first accumulation period after the new Net Base Energy Cost is set, and in the case
2 of Ameren Missouri, the fuel costs should grow at a fairly certain rate. In this rebuttal
3 testimony, I will compare the results of Ameren Missouri's and Staff's estimates of the Net
4 Base Energy Cost and review the results of the fuel models of Ameren Missouri, Staff and
5 MIEC.

6 In his direct testimony, MIEC witness Maurice Brubaker asks the Commission to
7 remove the requirement to pay the fuel adjustment charge from Noranda Aluminum, Inc.
8 ("Noranda"). OPC recommends that if the Commission continues Ameren Missouri's
9 FAC, it not allow any one customer or class to be exempt from the fuel adjustment charge.
10 In this testimony, I will provide OPC's position regarding this request.

11 Finally, I will respond to the "Polar Vortex" adjustment made by Ameren
12 Missouri, Staff and MIEC.

13 **Q. WOULD YOU SUMMARIZE YOUR RECOMMENDATIONS TO THE**
14 **COMMISSION IN THIS TESTIMONY?**

15 **A.** I make the following recommendations in this testimony:

16 1. OPC recommends that the Commission not continue Ameren Missouri's FAC. If
17 the Commission decides to grant Ameren Missouri an FAC, it is OPC's recommendation
18 that fuel commodity costs, purchased power costs, the cost of transporting the fuel
19 commodity, purchased power transmission costs, off-system sales and the revenues from
20 capacity sales be the only costs and revenues included;

21 2. If the Commission decides to grant Ameren Missouri an FAC and decides to allow
22 costs other than the costs and revenues in OPC's first recommendation, OPC recommends

1 that no cost or revenue type that had an annual amount of less than \$390,000 in the test year
2 be included in Ameren Missouri's FAC;

3 3. It is OPC's recommendation that ** not be flowed through the
4 FAC;

5 4. It is OPC's recommendation that the Commission deny Noranda's request not to
6 pay the fuel adjustment charge; and

7 5. OPC agrees with MIEC witness Nicholas L. Phillips that, if the weather was so
8 extreme that a "Polar Vortex" adjustment needs to be made, adjustments need to be made
9 to natural gas prices and MISO Market Settlement Charge Types.

10
11 **REBUTTAL OF AMEREN WITNESSES REGARDING THE FAC INFORMATION**
12 **PROVIDED**

13 **Q. WHICH AMEREN MISSOURI WITNESSES PROVIDED INFORMATION**
14 **REGARDING THE FAC?**

15 A. I found information regarding the FAC in the direct testimonies of Ameren Missouri
16 witnesses Laura Moore, Lynn Barnes and Jaime Haro. Laura Moore provided the
17 calculation of the FAC Net Base Energy Cost, Lynn Barnes provided general testimony
18 requesting the Commission continue the FAC and Jaime Haro provided information
19 regarding market prices and their effect on the FAC.

20 **Q. DID ANY OF THESE WITNESSES PROVIDE A COMPLETE EXPLANATION**
21 **OF ALL THE COSTS AND REVENUES THAT AMEREN MISSOURI IS**

1 **REQUESTING BE INCLUDED IN ITS FAC AS REQUIRED BY 4 CSR 240-**
2 **3.161(3)(H) AND (I)?**

3 A. No, they did not. Ms. Barnes included in Schedule 1 of her testimony tables that only
4 summarize the costs and revenues that Ameren Missouri is requesting that the Commission
5 approve to be included in its FAC.

6 **Q. CAN YOU IDENTIFY THE COSTS OR REVENUES THAT AMEREN MISSOURI**
7 **IS PROPOSING TO BE INCLUDED IN ITS FAC?**

8 A. No. Ms. Barnes included only a summary of the costs and revenues that Ameren Missouri
9 is proposing be included in its FAC. I reviewed Ms. Barnes direct testimony and the
10 proposed tariff sheets attached to Ms. Barnes testimony as Schedule LMB-3. From this
11 review, I am presuming that Ameren Missouri is proposing that all of the costs and
12 revenues that it is currently flowing through its FAC continue to flow through, with the
13 exception of the fuel costs for the Maryland Heights Energy Center; but without a complete
14 description as required by the rule, this is just a presumption.

15 **Q. DID YOU ASK AMEREN MISSOURI FOR A COMPLETE DESCRIPTION OF**
16 **THE COSTS AND REVENUES AMEREN MISSOURI IS REQUESTING BE**
17 **INCLUDED IN ITS FAC?**

18 A. Yes, I did. Attached as Schedule LM-R-1 are Ameren Missouri's responses to OPC data
19 requests 8005 and 8005.1 requesting a complete description of the costs and data requests
20 8006 and 8006.1 requesting a complete description of the revenues. A summary of the
21 responses from Ameren Missouri was that "A complete explanation of the costs was
22 provided in the [Minimum Filing Requirements] included in Ms. Barnes' testimony."

1 Therefore, I did not receive any more explanation through data request responses than what
2 was provided in Ms. Barnes' testimony.

3 **Q. WHY IS IT IMPORTANT FOR THE COMMISSION TO HAVE A COMPLETE**
4 **EXPLANATION OF ALL OF THE COSTS AND REVENUES THAT AN**
5 **ELECTRIC UTILITY IS REQUESTING FLOW THROUGH AN FAC?**

6 A. The Commission is required by 4 CSR 240-20.090(2)(C) to determine what costs will flow
7 through an FAC. A complete explanation of what costs Ameren Missouri is requesting be
8 included in the FAC is necessary to provide a basis for the Commission either to approve or
9 reject each cost that Ameren Missouri is requesting be included in an FAC.

10 **Q. WHY IS IT IMPORTANT FOR THE COMMISSION TO APPROVE OR REJECT**
11 **EACH COST AND REVENUE THAT FLOWS THROUGH AN FAC?**

12 A. Without a Commission-approved list of costs and revenues that are allowed to flow through
13 the FAC, the electric utility can, and has historically, taken advantage of generic cost and
14 revenue definitions in order to include costs that the Commission and other parties are not
15 aware are flowing through the FAC. A commission review of each cost and revenue is,
16 therefore, necessary to prevent an expanding interpretation of costs flowing through the
17 FAC – an exception to general ratemaking – and to ensure just and reasonable rates.

18 **Q. HAS THIS HAPPENED WITH AMEREN MISSOURI?**

19 A. Yes, it has. As described in my direct testimony, non-Ameren Missouri parties in the last
20 Ameren Missouri rate increase case were surprised to learn in rebuttal testimony that most

1 of Ameren Missouri's Midwest Independent System Operator ("MISO") costs were
2 flowing through the FAC.

3 **Q. IS THERE ANOTHER SOURCE OF INFORMATION SHOWING WHAT**
4 **AMEREN MISSOURI IS PROPOSING BE INCLUDED IN ITS FAC?**

5 A. Yes, there is. I found additional information regarding the costs that Ameren Missouri is
6 including in its current FAC in the monthly FAC reports submitted to Staff and OPC.
7 Using my unverified assumption that Ameren Missouri is proposing that current costs and
8 revenues flow through its FAC, with the exception of the Maryland Heights Energy Center
9 fuel costs, then to the best of my knowledge the monthly FAC reports contain all the costs
10 and revenues that Ameren Missouri is proposing be included in its FAC.

11 **Q. DO THESE MONTHLY FAC REPORTS CONTAIN COMPLETE**
12 **EXPLANATIONS OF THE COSTS THAT AMEREN MISSOURI IS**
13 **REQUESTING BE INCLUDED IN ITS FAC IN THIS CASE?**

14 A. No, they do not. Each report contains the costs incurred and revenues received for that
15 month that were included in Ameren Missouri's FAC. A brief description of the major
16 account, the minor account and some activity codes for the FAC costs and revenues are
17 available from the General Ledger Keys also provided in the report. These reports do not
18 provide a complete definition because the General Ledger Keys are limited to about fifty
19 (50) characters. A copy of the monthly FAC report for February 2014 is attached to this
20 testimony as Schedule LM-R-5.

1 **DETERMINE WHETHER OR NOT A COST OR REVENUE SHOULD BE**
2 **INCLUDED IN AMEREN MISSOURI'S FAC?**

3 A. Yes. Commission rule 4 CSR 240-20.090(2)(C) states that, when determining the costs to
4 include in an FAC, the Commission should consider the magnitude of the costs, the ability
5 of the utility to manage the cost, the volatility of the cost and the incentive provided to the
6 utility as a result of the inclusion or exclusion of a cost.

7 **Q. DID AMEREN MISSOURI PROVIDE THIS INFORMATION TO THE**
8 **COMMISSION FOR EACH OF THE COSTS AND REVENUES THAT IT IS**
9 **PROPOSING BE INCLUDED IN ITS FAC?**

10 A. No, it did not. In her testimony, Ameren Missouri's witness Ms. Barnes makes a blanket
11 statement regarding all of the costs and revenues that Ameren Missouri is proposing flow
12 through the FAC. She states "all the factors the Commission has generally considered in
13 evaluating FACs favor continuation of the FAC."¹ She also states in her Schedule LMB-1-
14 3 that fuel and purchased power costs "are often times" much more significant, volatile,
15 uncertain and much more difficult to control than other utility costs."² She goes on to state
16 that the FAC assists in addressing what she says is the "relentlessly increasing volatile and
17 uncertain fuel costs incurred by the Company in providing service to its customers."³
18 However, in her testimony she seemingly contradicts this assertion when she states that the
19 Company has in place long-term contracts for coal and coal transportation,⁴ which suggests
20 that coal and coal transportation costs, while increasing, are increasing at a certain and

¹ EFIS item 12, Direct testimony of Lynn M. Barnes, page 5, lines 9 – 10.

² EFIS item 12, Direct testimony of Lynn M. Barnes, Schedule LMB-1-3

³ EFIS item 12, Direct testimony of Lynn M. Barnes, Schedule LMB-1-3

1 identifiable rate. This is important because, in the test year, Ameren Missouri's coal plants
2 provided 76.31% of total generation. Coal commodity and coal transportation costs were
3 81.19% of the total fuel costs in the test year. Therefore, given Ms. Barnes' statement
4 regarding long-term contracts for coal and coal transportation, the biggest fuel costs for
5 Ameren Missouri are not uncertain.

6 **Q. DOES MS. BARNES OR ANY OTHER AMEREN MISSOURI WITNESS**
7 **PROVIDE ANY INFORMATION REGARDING THE MAGNITUDE OR THE**
8 **VOLATILITY OF THE TRANSMISSION COSTS AND REVENUES THAT**
9 **CURRENTLY FLOW THROUGH THE FAC?**

10 A. No. Mr. Haro provided direct testimony on the MISO costs and revenues used to calculate
11 the off-system sales revenues included in the FAC's Net Base Energy Cost. He did not,
12 however, provide testimony regarding other transmission costs, including but not limited to,

13 **

14
15 **

16 **Q. DID AMEREN MISSOURI INCLUDE IN ITS DIRECT TESTIMONY ANY**
17 **EXPLANATION REGARDING THE VOLATILITY AND UNCERTAINTY OF ITS**
18 **FUEL COSTS AS IT DID IN PAST CASES?**

19 A. No, it did not. The only testimony regarding the volatility and uncertainty of fuel prices is
20 contained in Ms. Barnes' testimony as described above.

⁴ EFIS item 12, Direct testimony of Lynn M. Barnes, Page 7, lines 6 – 7.

1 **Q. IN PAST CASES HAS AMEREN MISSOURI PROVIDED TESTIMONY ON THE**
2 **MAGNITUDE OF THE COSTS, ITS ABILITY TO MANAGE THE COSTS AND**
3 **THE VOLATILITY OF THE COSTS THAT IT IS REQUESTING BE INCLUDED**
4 **IN ITS FAC?**

5 A. Yes, it has. In the first rate increase case that Ameren Missouri filed after the FAC rules
6 went into effect, Case No. ER-2008-0318, Ameren Missouri filed direct testimony on coal
7 and coal transportation costs,⁵ gas for generation costs,⁶ off-system sales⁷ and the volatility
8 and uncertainty surrounding each of these and Ameren Missouri's ability to manage these
9 costs.⁸ In addition, Ameren Missouri provided testimony on nuclear fuel costs.⁹ Because
10 the only transmission costs that were included in the first FAC were transmission costs
11 associated with purchased power, there was no discussion regarding the magnitude or the
12 volatility of transmission costs or the ability of Ameren Missouri to manage transmission
13 costs.

14 In the next Ameren Missouri rate case, Case No. ER-2010-0036 filed on July 24,
15 2009, Ameren Missouri for the first time included in its summary description of the costs to
16 be included in this case, "MISO costs with the exception of certain MISO administrative
17 costs." No description was given in Ameren Missouri's testimony in this case of exactly
18 what "MISO costs" were or the magnitude or volatility of MISO costs or the ability of
19 Ameren Missouri to manage these costs. The only information provided was one sentence
20 in Schedule LMB-E1-6 attached to the direct testimony of Ameren Missouri witness Lynn

⁵ Case No. ER-2008-0318 EFIS Item 8, Direct testimony of Robert K. Neff.

⁶ Case No. ER-2008-0318 EFIS Item 9, Direct testimony of Scott A. Glaeser.

⁷ Case No. ER-2008-0318 EFIS Item 12, Direct testimony of Shawn E. Schukar.

⁸ Case No. ER-2008-0318 EFIS Item 13, Direct testimony of Ajay K. Arora.

1 M. Barnes.¹⁰ In that 2009 case the Commission issued an **Order Directing Parties To**
2 **Submit Testimony Concerning the Appropriateness of AmerenUE's Current Fuel**
3 **Adjustment Clause.**¹¹ Ameren Missouri did not provide information related to the
4 magnitude, volatility, and uncertainty of fuel, fuel transportation and off-system sales costs
5 until after the Commission's order.¹²

6 I could not find any testimony in Ameren Missouri's next rate case, Case No. ER-
7 2011-0028, relating to the magnitude, volatility and uncertainty of any of the costs or
8 revenues included in the FAC other than a general discussion on the volatility and
9 uncertainty of fuel in the direct testimony of Ameren witness Lynn M. Barnes¹³ and a
10 discussion on the volatility of off-system sales in the direct testimony of Ameren Missouri
11 witness Jaime Haro.¹⁴

12 In Ameren Missouri's last rate increase case, Case No. ER-2012-0166, Ms. Barnes
13 provided some information on the uncertainty and volatility of fuel prices in her rebuttal
14 testimony.¹⁵ Ameren Missouri provided its first testimony on why MISO costs should be
15 included in the FAC in that case in the rebuttal testimony of Jaime Haro¹⁶ on August 14,
16 2012. His testimony was in response to Staff's request in its direct report that the tariff
17 sheets be clarified so that only transmission associated with purchased power be included
18 in the tariff sheet. Information on the magnitude, uncertainty, and volatility of total MISO

⁹ Case No. ER-2008-0318 EFIS Item 10, Direct testimony of Randall J. Irwin.

¹⁰ Case No. ER-2010-0036 EFIS Item 7, Direct testimony of Lynn M. Barnes.

¹¹ Case No. ER-2010-0036, EFIS Item 369.

¹² Case No. ER-2010-0036, EFIS Item 406, Direct testimony of Jaime Haro; EFIS Item 411, Direct testimony of Robert K. Neff; EFIS Item 412, direct testimony of James Massman; and EFIS Item 413, direct testimony of Randall J. Irwin.

¹³ Case No. ER-2011-0028, EFIS Item 13.

¹⁴ Case No. ER-2011-0028, EFIS Item 15.

¹⁵ Case No. ER-2012-0166, EFIS item 115.

1 costs was first introduced into the case in sur-surrebuttal filed on September 19, 2012 –
2 over seven months after the case was filed. This information was not provided on each of
3 the individual MISO costs found in the FAC monthly reports.

4 **Q. SO THE MOST RECENT TESTIMONY FILED BY AMEREN MISSOURI**
5 **REGARDING THE UNCERTAINTY, VOLATILITY AND MANAGABILITY OF**
6 **FUEL COSTS WAS FILED ALMOST FIVE YEARS AGO?**

7 A. Yes. While Ameren Missouri always has filed testimony on market prices and how these
8 prices affect its off-system sales, there has not been any testimony filed showing the
9 uncertainty, volatility and manageability of fuel and fuel transportation costs since
10 February, 2010.

11 **Q. DO YOU HAVE ANY INFORMATION MORE RECENT THAN THE**
12 **TESTIMONY FILED ALMOST FIVE YEARS AGO ON THE FUEL, PURCHASED**
13 **POWER AND TRANSPORTATION COSTS AMEREN MISSOURI IS**
14 **REQUESTING FLOW THROUGH THE FAC?**

15 A. Yes. I have the magnitude of the costs and the revenues that Ameren Missouri flowed
16 through its FAC in the test year from the FAC monthly reports.

17 **Q. IS THE INFORMATION THAT YOU HAVE SUFFICIENT FOR THE**
18 **COMMISSION TO DETERMINE WHAT COSTS SHOULD BE INCLUDED IN**
19 **AMEREN MISSOURI'S FAC?**

¹⁶ Case No. ER-2012-0166, EFIS item 124.

1 A. No, it is not. The magnitude of the costs and revenues is only one piece of information that
2 the Commission should review. Rule 4 CSR 240-20.090(2)(C) requires the Commission to
3 consider the magnitude, volatility, Ameren Missouri's ability to manage the costs and the
4 incentive provided to the Ameren Missouri as a result of the inclusion or exclusion of a cost
5 when determining what costs are included in an FAC. While the test year costs and
6 revenues show the volatility of a cost or revenue across a twelve month time period, more
7 than one year of information is necessary to get a good understanding of the volatility of
8 each of the costs and revenues. Ameren Missouri is requesting that it be allowed to flow
9 *future* changes in FAC costs and revenues through its FAC and yet it has not provided the
10 Commission sufficient information regarding the expected volatility of the costs and
11 revenues. In addition, Ameren Missouri did not provide any testimony regarding its ability
12 to manage those costs and revenues in the future. Therefore, even though I was able to
13 gather certain information, that information alone is insufficient, in my opinion, for the
14 Commission to make its determination on what costs and revenues should be included in
15 Ameren Missouri's FAC. For this reason, OPC recommends the Commission not grant
16 Ameren Missouri's request for an FAC.

17
18 **Q. WOULD YOU PROVIDE THE COMMISSION THE INFORMATION THAT**
19 **YOU GATHERED REGARDING THE MAGNITUDE OF THE COSTS AND**
20 **REVENUES THAT AMEREN MISSOURI IS CURRENTLY INCLUDING IN ITS**
21 **FAC?**

1 A. Schedule LM-R-2 shows the magnitude of the costs and Schedule LM-R-3 shows the
2 magnitude of the revenues that I pulled from the FAC monthly reports for the test year.

3 **Q. WOULD YOU SUMMARIZE THE LARGEST AND THE SMALLEST COSTS IN**
4 **THE TEST YEAR?**

5 A. The largest cost in the test year is for ** **¹⁷ This cost of **
6 ** makes up 35.33% of the total costs. The second largest cost of **
7 ** is for ** ** (27.90%). The next four
8 largest costs are for ** ** (7.72%), **
9 ** (7.12%), ** ** (5.34%) and ** **
10 (3.92%). These six costs make up 87.33% of the total costs in Ameren Missouri's current
11 FAC. The natural gas, oil, and the transportation cost of natural gas and oil comprised
12 2.62% of the costs. The fuel and purchased power costs, along with the transportation of
13 these costs, emission allowances gains and replacement power insurance comprise only
14 twenty-six (26) of the seventy-nine (79) charge/revenue types but make up 93.23% of the
15 total costs.

16 **Q. HOW MANY COSTS WERE LESS THAN \$390,000 IN THE TEST YEAR?**

17 A. Listed below in Table 1 are the four accounts with no cost and the 19 cost types that totaled
18 less than \$390,000 in the test year:

19 **

¹⁷ Also referred to as native load.

1 **

2

3 **Q. WHAT IS SIGNIFICANT ABOUT \$390,000?**

4 A. One of the minimum filing requirements for an electric utility requesting an FAC is the
5 provision of a complete explanation of how the proposed FAC provides the electric utility a
6 sufficient opportunity to earn a fair return on equity.¹⁹ Therefore, I chose one (1) basis
7 point (one basis point is one one-hundreth of one percent) change in return on equity as an
8 appropriate measure of the size of cost which should be included in the FAC. According to
9 OPC witness Lance C. Schafer,²⁰ one basis point on Ameren Missouri's return on common
10 equity is over \$390,000. The costs of these 19 expense revenue accounts would have to

¹⁸ The General Ledger Key in the FAC monthly reports show that "AIC" stands for Ameren Illinois Company. If this is indeed a cost for Ameren Illinois, it should not be allowed to flow through to Ameren Missouri customers. OPC is hopeful that Staff will carefully look at this cost in it the FAC prudence audit that it is currently conducting.

¹⁹ 4 CSR 240-3.161(3)(E).

²⁰ Rebuttal testimony of OPC witness Lance C. Schafer, Page 69.

1 more than double in cost to even impact Ameren Missouri's return by one basis point. To
2 be sure, the FAC only tracks the difference between the costs included in permanent rates
3 and actual costs. Therefore, there is small likelihood that the change in any of these costs
4 would impact Ameren Missouri's return on equity.

5 In addition, one of the FAC minimum filing requirements of Ameren Missouri is to
6 describe how the FAC is compatible with the requirement for a prudence review²¹.
7 Including a great variety of expense and revenue accounts complicates the review process,
8 especially where the Company has not provided sufficient detail regarding each account.
9 Moreover, removing these expenses and revenues will have little impact on total costs and
10 will help simplify the prudence review process. Again, it is not OPC's recommendation
11 that Ameren Missouri should not recover prudently incurred costs; it is OPC's
12 recommendation that the non-fuel costs listed above not flow through the FAC.

13 **Q. YOU MENTIONED ** ** AS ONE OF THE EXPENSES**
14 **YOU DID NOT EXPECT TO SEE IN THE REPORTS. WHAT IS THE HARM OF**
15 **LEAVING ACCOUNTS IN THE FAC IF THERE ARE ZERO COSTS OR**
16 **REVENUES ASSOCIATED WITH THE ACCOUNT?**

17 **A.** There are at least two reasons to remove accounts with zero costs or revenues. First, it
18 reduces the number of accounts that have to be tracked and reviewed for prudence. Second,
19 by including it in the expenses that Ameren Missouri flows through the FAC, Ameren
20 Missouri may assume that whatever costs it puts in that account in the future have been
21 approved to flow through the account. Parties will be left to "discover" the costs in the

²¹ 4 CSR 240-3.161(3)(G)

1 monthly FAC reports and have to “discover” why the costs in that account have changed
2 significantly. At best, the Commission would only get notified in a rate case – sometimes
3 long after the costs were flowed through the FAC.

4 **Q. HAS THIS OR SOMETHING SIMILAR HAPPENED PREVIOUSLY WITH**
5 **AMEREN MISSOURI?**

6 A. While I am not aware of an example of Ameren Missouri including significant costs in an
7 account that had previously been zero, the parties have experienced a cost in an account
8 changing and increasing significantly.

9 **Q. WOULD YOU EXPLAIN?**

10 A. Sometime around June, 2010,²² Ameren Missouri began flowing MISO Schedule 26
11 Network Upgrade Charges associated with MISO’s Multi-Valued Projects (“MVP”)
12 through the FAC. According to the work papers of Staff witness Lisa Hanneken²³ in the
13 present case, Case No. ER-2014-0258, at that time the Schedule 26 costs for these projects
14 were between ** ** per month. In June, 2011, Ameren Missouri’s
15 costs jumped to over ** ** per month. In January, 2012, MISO saw a reason to
16 separate MVP charges and created Schedule 26A. Even though Ameren Missouri was
17 being charged under two different MISO Schedules (26 and 26A), the monthly FAC reports
18 did not show Schedule 26A costs until January 2013. Schedule 26A costs were included in
19 the costs of Schedule 26. In June, 2012, the combined Schedule 26 and Schedule 26A

²² Ameren began reporting minor account information in its monthly FAC reports in July, 2011 which included the Schedule 26 charges. Schedule 26A charges were incurred but reported as Schedule 26 through December, 2012.

²³ Hanneken WP – HC – MISO Revenue & Expense.xlsx

1 monthly costs jumped up to over **. In January, 2013, the sum of
2 the two Schedules jumped to over **. For the last month in Ms.
3 Hanneken's work papers, September, 2014, the cost was **. These costs
4 have gone from ** per month when they were first included in the FAC to
5 over ** in September 2014.

6 **Q. WHY DID THESE COSTS INCREASE SO DRAMATICALLY?**

7 A. It is my understanding that these costs are tied to transmission projects throughout MISO's
8 footprint. These costs have increased substantially as MISO utilities have begun upgrading
9 and building more transmission.

10 **Q. DID AMEREN MISSOURI PROVIDE INFORMATION REGARDING THE**
11 **SCHEDULE 26 COSTS AND EXPLAIN TO THE COMMISSION THAT THE**
12 **COSTS WERE GOING TO INCREASE DRAMATICALLY?**

13 A. Ameren Missouri provided some information in the last rate case, Case No. ER-2012-0166,
14 in the sur-surrebutal testimony of Jaime Haro²⁴ filed in that case on September 19, 2012.
15 Even though Ameren Missouri was being charged under two different MISO Schedules (26
16 and 26A), the monthly FAC reports did not show Schedule 26A costs until January 2013.
17 This is significant because Ameren Missouri did not begin to show Schedule 26A costs
18 separate from Schedule 26 cost until after the Commission's order in Case No. ER-2012-
19 0166. This was the first rate case where there had been a discussion regarding the inclusion
20 of MISO costs in the FAC and it came late in that case.

²⁴ Case No. ER-2012-0166, Item 272.

1 **Q. WHY?**

2 A. FAC monthly reports for prior to September 2012 show Ameren Missouri was paying for
3 insurance and that the cost for insurance was not variable, or uncertain. And as Ameren
4 Missouri has shown, it does have the ability to manage the costs. Leaving it out of the FAC
5 does not mean that the costs are not included as expenses on which permanent rates are set,
6 it just means that changes to the cost would not flow through the FAC. Since it was a
7 certain, constant cost, there is no reason for it to be included in the FAC.

8 **Q. WHAT IS THE MAGNITUDE OF THE REVENUES THAT AMEREN MISSOURI**
9 **IS CURRENTLY INCLUDING IN ITS FAC?**

10 A. By far, the largest source of revenues that flow through the FAC is ** **
11 from the ** **. The next largest sources of revenues are from **

12

13 **

14 There are three negative sources of income (cost) listed with the revenue – **

15

16 **

17 **Q. HOW MANY REVENUE ACCOUNTS WERE LESS THAN \$390,000 IN THE TEST**
18 **YEAR?**

19 A. Listed below are the two accounts with no revenues and the four revenue accounts that
20 totaled less than \$390,000 in the test year:

21 **

1 **

2 **Q. DOES OPC HAVE A RECOMMENDATION REGARDING REVENUE**
3 **ACCOUNTS WITH REVENUES OF LESS THAN \$390,000?**

4 A. Yes. It is OPC's recommendation that the Commission not continue Ameren Missouri's
5 FAC. If the Commission decides to grant Ameren Missouri an FAC, it is OPC's
6 recommendation that only fuel and purchased power costs and off-system sales be included
7 and that no non-fuel account that had revenues of less than \$390,000 in the test year be
8 allow to flow through the FAC.

9 **Q. WHY?**

10 A. For the same reasons that costs below \$390,000 should not be included. Changes in these
11 revenues are very unlikely to impact Ameren Missouri's return on equity by even one basis
12 point and fewer revenue types should reduce the complexity of prudence reviews. Again, it
13 is not OPC's recommendation that these revenues not be included in Ameren Missouri's
14 revenue requirement; it is OPC's recommendation that revenues listed above not flow
15 through the FAC.
16

1 **REVISION TO OPC'S RECOMMENDATION SHOULD THE COMMISSION ALLOW**
2 **AMEREN MISSOURI TO HAVE AN FAC**

3 **Q. HAS OPC REVISED ITS RECOMMENDATION REGARDING WHAT COSTS**
4 **AND REVENUES SHOULD FLOW THROUGH AMEREN MISSOURI'S FAC?**

5 A. Yes, it has. Should the Commission grant Ameren Missouri an FAC, OPC recommends
6 that fuel commodity costs, purchased power costs, the cost of transporting the fuel
7 commodity, purchased power transmission costs, off-system sales and the revenues from
8 capacity sales be included. For the reasons previously stated, the FAC should not include
9 the cost of replacement power insurance and, for reasons described later in this testimony,
10 proceeds from financial swaps.

11 **Q. WHAT IS THE REVISION TO YOUR RECOMMENDATION IN DIRECT**
12 **TESTIMONY?**

13 A. OPC agrees with MIEC witness James R. Dauphanais that transmission costs associated
14 with purchased power to serve Ameren Missouri's customers or to make off-system sales
15 should flow through the FAC. In addition, OPC wants to make it clear that revenues from
16 capacity sales, including capacity sales through MISO or any other regional transmission
17 organization, also should be included in the FAC.

18 **Q. IS THIS DIFFERENT FROM WHAT WAS INCLUDED IN THE FAC IN THE**
19 **PAST?**

20 A. No. It is consistent with the costs and revenues in the first FAC that the Commission
21 approved for Ameren Missouri. Since that first FAC, MISO costs and RTO costs not

1 associated with purchased power have flowed through the FAC. After the last case, where
2 Ameren Missouri first presented testimony on RTO costs in sur-surrebuttal testimony, RTO
3 revenues were added to the FAC.

4 **Q. WHAT CONCLUSIONS CAN YOU MAKE FROM THE DATA PROVIDED IN**
5 **THE FAC MONTHLY REPORTS REGARDING OPC'S RECOMMENDATION**
6 **REGARDING THE COSTS TO BE INCLUDED IF THE COMMISSION ALLOWS**
7 **AMEREN MISSOURI TO CONTINUE TO HAVE AN FAC?**

8 A. Should the Commission allow the continuation of Ameren Missouri's FAC and the
9 Commission follows the OPC recommendation that only fuel, purchased power, fuel
10 transportation and transmission associated with purchased power costs and off-system sales
11 be included in Ameren Missouri's FAC, over 93% of the current costs would be included
12 in Ameren Missouri's FAC.

13 If the Commission allows the continuation of Ameren Missouri's FAC but restricts
14 the revenues that flow through the FAC to those revenues from off-system sales of energy
15 and demand, the allowed revenues would account for approximately 90% of the current
16 revenues that flow through the FAC.

17
18 **NET BASE ENERGY COST**

19 **Q. STAFF WITNESS MATTHEW J. BARNES SHOWS IN CHART 1 ON PAGE 165**
20 **OF THE STAFF REPORT THAT THE DIFFERENCE BETWEEN THE NET**
21 **BASE ENERGY COST AND THE ACTUAL NET ENERGY COST IS**
22 **INCREASING. WOULD YOU PROVIDE A GRAPH OF JUST THE**

**DIFFERENCE BETWEEN NET BASE ENERGY COSTS AND THE ACTUAL NET
BASE ENERGY COSTS SINCE THE NET BASE ENERGY COST WAS SET IN
CASE NO. ER-2011-0028?**

A. Chart 1 below gives the differences between the Net Base Energy Cost (“NBEC”) and the Actual Net Energy Cost (“ANEC”) for Accumulation Periods 8 through 16 and shows when the orders in the last two Ameren Missouri rate cases, Case Nos. ER-2011-0028 and ER-2012-0166 went into effect.

Chart 1

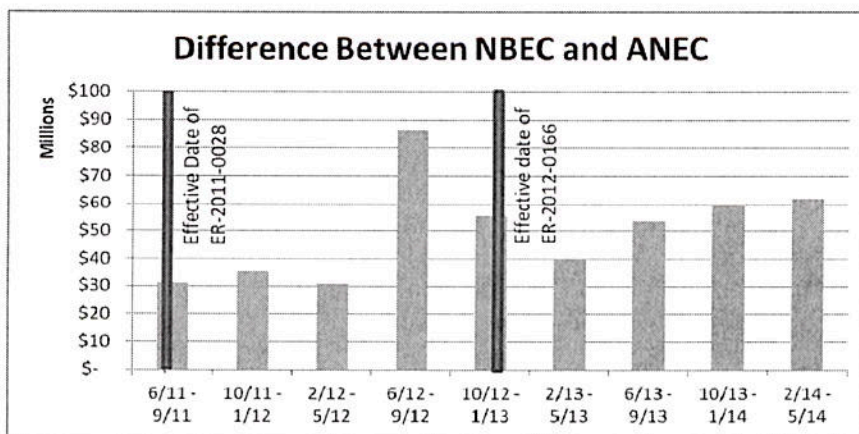


Chart 1 shows that even though the Net Base Energy Cost has been reset twice in this time period, the ANECs have been at least \$30 million higher than the NBECs and are on average \$50.5 million higher than the ANECs. The difference since the last rate case has been greater than \$40 million in every accumulation period.

Q. **DO YOU KNOW WHY THE ANEC HAS BEEN SO MUCH HIGHER THAN THE NBEC?**

1 A. No, I do not. However, there are two possibilities: 1) the NBEC was set too low in the rate
2 cases; or 2) the actual costs changed considerably from when rates were set.

3 **Q. TWO PARTIES TO THIS CASE – AMEREN MISSOURI AND STAFF – HAVE**
4 **RECOMMENDED TWO DIFFERENT NET BASE ENERGY COSTS IN THIS**
5 **CASE. HAVE YOU REVIEWED THESE NET BASE ENERGY COSTS?**

6 A. Yes, I have. A comparison of Staff's and Ameren Missouri's proposed NBECs is attached
7 as Schedule LM-R-4. Staff and Ameren Missouri's estimated "Total Fuel, PP and Other
8 Costs" are very close. However, Ameren Missouri's estimate for the fuel and purchased
9 power cost to meet base load is ** \ . ** less than Staff's estimate. But, this is
10 negated in the calculation because Ameren Missouri's estimate of fuel and power costs to
11 meet off-system sales is ** ^ ** more than Staff. Since the FAC includes both
12 fuel and purchased power for both base load and off-system sales, this is merely a
13 difference in how costs are allocated between base load and off-system sales.

14 The largest difference between Staff and Ameren Missouri is the inclusion of
15 Bilateral Energy Sales Margin and Financial Swaps revenues. Staff has included these
16 revenues and Ameren Missouri did not.

17 **Q. DO THE NET BASE ENERGY COSTS PROPOSED BY EITHER AMEREN**
18 **MISSOURI OR STAFF IN THIS CASE SEEM APPROPRIATE?**

19 A. No, they are both too low. To understand whether or not the NBECs proposed by Ameren
20 Missouri and Staff are appropriate, I compared the estimated fuel and purchased power
21 costs and off-system sales of Ameren Missouri, Staff and the Missouri Industrial Energy
22 Consumers ("MIEC") to actual costs and off-system sales revenues of the test year. While

1 I do not recommend using the actual fuel costs to set rates or the NBEC, it is a measure to
2 test whether or not the normalized fuel and purchased power numbers are reasonable. This
3 comparison is shown in the table below.

4 **

5 **

6 What this table shows is that all three models do a good job of estimating nuclear and coal
7 costs. Because of their fuel low costs, these plants tend to run every hour that they can and
8 the models successfully estimated these costs.

9 Differences between Ameren Missouri, Staff, and MIEC occur when modeling
10 natural gas generation. These are typically the marginal units that may or may not run

1 based on load and market prices. MIEC estimated higher natural gas and oil costs. This is
2 consistent with its estimates of higher off-system sales revenues.

3 All three parties estimate a normalized net fuel and purchased power cost of at
4 least ** ** below what the test year actual costs were. While MIEC's model
5 does estimate considerably more natural gas and oil costs, the biggest difference from
6 actual for all three model results is in off-system sales revenue and purchased power costs.
7 As compared to the actual test year, all three models over-estimate off-system sales and
8 under-estimate the cost of purchased power.

9 **Q. COULD YOU DETERMINE A PROBLEM WITH THE MODELING?**

10 A. No, I could not. One red flag to me was, according to a response to MIEC Data Request
11 1.2, Ameren Missouri did not bench-mark its fuel model. Since both MIEC and Staff
12 bench-mark their models to Ameren Missouri's model, perhaps Ameren Missouri's model
13 needs to be benchmarked.

14 **Q. IS THE MODELLING THE ONLY POSSIBLE PROBLEM?**

15 A. No, it is not. The actual costs may not be prudently incurred costs.

16 **Q. ARE YOU AWARE OF ANY IMPRUDENT COSTS?**

17 A. Not at this time. However, in looking at the individual costs in the FAC monthly reports, at
18 least one revenue labeled ** " ** was negative ** **
19 during the test year. In fact, for the twenty-one (21) months from January, 2013, when the
20 last rate increase went into effect, through September, 2014, Ameren Missouri only passed
21 on a profit of ** ** on its ** ** to its customers through its

1 FAC in only four (4) of the twenty-one (21) months. In contrast, Ameren Missouri passed
2 on a total of ** " ** losses to its customers through the
3 FAC during seventeen (17) of those twenty-one (21) months.

4 I do not have any information on whether or not any imprudence occurred, but I am
5 hopeful that Staff carefully reviews these losses in its current FAC prudence review.

6 **Q. SHOULD ** "FINANCIAL SWAPS" ** BE INCLUDED IN THE FAC?**

7 A. No, they should not. In the past, Ameren Missouri generally came out with a **
8 ** and it seemed logical to include it in the FAC. However, with
9 the ** **, OPC recommends that ** ** not be flowed
10 through the FAC because there is very little incentive for Ameren Missouri to make a
11 profit. Its reward and risk is minimal – it only gets to keep 5% of any profits and it can
12 flow 95% of any losses through to the customers.

13 **Q. DO THESE ** ** CONTRIBUTE TO THE**
14 **DIFFERENCES BETWEEN THE FUEL MODELS AND THE ACTUAL COSTS?**

15 A. No. ** ** are not included in the actual test year off-system sales
16 amount compared to the fuel modeling results.

17 **Q. BACK TO THE NBEC. IF THE NBEC IS HIGHER, SHOULD THERE BE A**
18 **CORRESPONDING INCREASE IN THE EXPENSES IN THE RATE CASE?**

19 A. Yes. If NBEC is increased, it is very important for the fuel and purchased power expenses
20 included in rates to be increased.

21 **Q. WHY?**

1 A. Because of the sharing mechanism adopted by this Commission, it is important that
 2 Ameren Missouri’s customers do not pay more than intended and it is equally important
 3 that Ameren Missouri recovers the cost that it is entitled. If the Net Base Energy Cost
 4 (“NBEC”) is set below what the actual costs are in the permanent rates, then the customers
 5 pay more than intended. If the NBEC is set higher than the costs in the permanent rates,
 6 then the electric utility does not recover the costs that it should. Below is a table that shows
 7 examples of how setting the NBEC incorrectly impacts either the customers or the electric
 8 utility.

Table 4						
Scenario	Net Energy Cost in Permanent Rates	FAC Net Base Energy Costs (NBEC)	Actual Net Energy Costs (ANEC)	Diff	FAC amount (95% of Diff)	Total Fuel Recovered
1A	\$10,000	\$10,000	\$10,000	\$0	\$0	\$10,000
1B	\$10,000	\$9,000	\$10,000	\$1,000	\$950	\$9,950
1C	\$10,000	\$11,000	\$10,000	(\$1,000)	(\$950)	\$10,050
2A	\$10,000	\$10,000	\$11,000	\$1,000	\$950	\$10,950
2B	\$10,000	\$9,000	\$11,000	\$2,000	\$1,900	\$10,900
2C	\$10,000	\$11,000	\$11,000	\$0	\$0	\$11,000
3A	\$10,000	\$10,000	\$9,000	(\$1,000)	(\$950)	\$9,050
3B	\$10,000	\$9,000	\$9,000	\$0	\$0	\$9,000
3C	\$10,000	\$11,000	\$9,000	(\$2,000)	(\$1,900)	\$9,100

9

10 **Q. PLEASE EXPLAIN TABLE 4.**

11 A. In Scenario 1A, 2A, and 3A the NBEC is equal to the energy costs in the permanent rates.
 12 For each of these scenarios, the electric utility recovers the correct amount and the
 13 customers are billed the correct amount. In Scenario 1A the actual net energy costs are

1 equal to the NBEC, so the FAC amount is zero and the electric utility recovers all of its fuel
2 costs through its permanent rates. In Scenario 2A, the actual net energy cost is higher than
3 the NBEC. The FAC amount is 95% of the difference or \$950. The electric utility bills the
4 amount that it is entitled to – in this scenario \$10,950. In Scenario 3A, the actual net
5 energy cost is lower than the NBEC. According to the sharing mechanism, \$950 is
6 returned to the customers and the electric utility recovers the \$10,000 that is in permanent
7 rates, thus spending \$9,000 for fuel but getting to recover \$9,050 because it managed its
8 fuel costs. This is the way that the Commission’s current sharing mechanism works.

9 In Scenarios 1B, 2B, and 3B the net base energy costs is set lower than the base
10 correct energy costs. For Scenario 1B, the actual net energy costs are the same as the
11 correct energy cost, but because the NBEC was set lower than the correct energy cost, the
12 electric utility only gets to bill \$9,950. In Scenario 2B, the actual net energy costs are
13 higher than the NBEC. The customers pay 95% of the difference between the NBEC and
14 the actual costs. However, if the NBEC had been set correctly, the electric utility would
15 have been able to bill the correct amount. In Scenario 3B, the actual energy costs are less
16 than the level at which the NBEC should have been set, but equal to the NBEC. This
17 results in the electric utility not getting any incentive for saving fuel costs.

18 In Scenario 1C, 2C, and 3C, the NBEC is set higher than the correct net energy
19 cost. In the situation where the actual costs are equal to what the level at which the NBEC
20 should have been set, Scenario 1C, the electric utility actually bills more than it should
21 because it gets to keep 5% of savings that did not actually occur. In Scenario 2C, the
22 electric utility does not have to share in the increase in costs because the NBEC was set too

1 high. Lastly, in Scenario 3C, the electric utility again gets to bill more than it should
2 because the calculated savings is greater than the actual savings.

3 **Q. WOULD INCREASING THE NBEC AND THE COST IN THE TOTAL REVENUE**
4 **REQUIREMENT RESULT IN A LARGER RATE INCREASE?**

5 A. Yes, it would. However, a desire to keep permanent rates artificially low should not drive
6 the fuel and purchased power expense or the off-system sales revenue set in the rate case
7 because the customers are going to end up paying the actual cost anyway through the FAC.
8 While they only have to pay 95% of the difference in the fuel cost through the FAC,
9 customers also have to pay interest on that difference.

10 In addition, Ameren Missouri has considerable testimony on the detriment of the
11 lag of getting the fuel costs repaid. An increase in the amount of fuel and purchased power
12 costs and off-system sales revenues would reduce that lag.

13 Moreover, maintaining an artificially low NBEC increases the differences between
14 actual net energy cost resulting in the appearance that the FAC costs and revenues have
15 substantially changed since the last rate case which has the subtle effect of bolstering the
16 supposed need for an FAC the next time the electric utility comes in for a rate case.

17 Also, a consistently large difference between the NBEC and actual net energy costs
18 indicates that the portion of the costs that the electric utility is absorbing is not great
19 enough. If the sharing mechanism was changed to give Ameren Missouri a greater share of
20 the risk, as recommended by OPC in my direct testimony, then Ameren Missouri would
21 have a greater incentive to properly estimate fuel and purchased power costs and off-system
22 sales.

1 | **Q. WHAT WOULD BE THE IMPACT ON THE FAC RATE IF THE NBEC WAS**
2 | **INCREASED?**

3 | A. The FAC rate would decrease, ideally to close to zero in at least the first accumulation
4 | period after new rates went into effect. It would be considerably less for subsequent
5 | accumulation periods.

6 | **Q. DO YOU HAVE AN ESTIMATE OF HOW MUCH THE NBEC SHOULD**
7 | **INCREASE?**

8 | A. No, I do not. However, I am aware that at least Staff will be providing an update to its fuel
9 | and purchased power costs and off-system sales revenues in its rebuttal testimony. OPC
10 | urges all parties engaged in fuel modeling to continue to consider carefully the results of
11 | their fuel runs to see what changes may need to be made.

12 |

13 | **DENY NORANDA'S REQUEST NOT TO PAY THE FUEL ADJUSTMENT CHARGE**

14 | **Q. SHOULD THE COMMISSION GRANT NORANDA'S REQUEST NOT TO PAY**
15 | **THE FUEL ADJUSTMENT CHARGE?**

16 | A. No, it should not. Noranda, like every other Ameren Missouri customer, is served by an
17 | integrated production system with varied resources ideally designed and built to meet that
18 | load. Resource variety is the key to providing low cost, reliable supply of energy to all
19 | customers; even customers as large as Noranda. The energy used by Noranda contributes
20 | to the cost of fuel to meet Ameren Missouri's system requirements just as the usage of
21 | Ameren Missouri's other customers contributes to the cost of fuel. And just as the existence
22 | of the other customers reduces the amount of energy and capacity Ameren Missouri can

1 sell on the market, the existence of Noranda as a customer of Ameren Missouri reduces the
2 amount of energy and capacity that Ameren Missouri can sell as purchased power.
3 Therefore, neither Noranda nor any other Ameren Missouri customer should be excluded
4 from the FAC, should the Commission determine that the FAC should continue for Ameren
5 Missouri.

6
7 **POLAR VORTEX ADJUSTMENTS**

8 **Q. WHAT IS THE POLAR VORTEX ADJUSTMENT?**

9 A. Ameren Missouri, Staff and MIEC made adjustments that they labeled a “Polar Vortex”
10 adjustment due to a period of cold weather in January through March 2014. All three made
11 adjustments to their normalized market prices used in their fuel models. MIEC proposes
12 “Polar Vortex” adjustments to more than just market prices.

13 **Q. WHAT IS OPC’S RECOMMENDATION REGARDING THESE ADJUSTMENTS?**

14 A. OPC agrees with MIEC witness Nicholas L. Phillips that, if the weather was so extreme
15 that a “Polar Vortex” adjustment needs to be made, adjustments need to be made to natural
16 gas prices and MISO Market Settlement Charge Types as well.

17 **Q. WHAT IS THIS RECOMMENDATION BASED ON?**

18 A. In addition to Mr. Phillips testimony, I reviewed the natural gas prices Staff used to
19 determine the natural gas cost input in its fuel model. The natural gas prices increased in
20 January, 2014, and decreased after March, 2014, which is consistent with the time period of

1 the Polar Vortex weather event. This shows that the Polar Vortex impacted not only
2 market prices but natural gas prices too.

3 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

4 **A. Yes, it does.**