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FILED⁴

DEC 29 2006

BY HAND DELIVERY

December 29, 2006

Cully Dale
Secretary/Chief Administrative Law Judge
Missouri Public Service Commission
200 Madison Street
Jefferson City, MO 65101

Missouri Public
Service Commission

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RE: Case No. ER-2007-0002

Dear Judge Dale:

Attached for filing on behalf of the Missouri Industrial Energy Consumers in the above-referenced case are an original and eight (8) copies each of the following:

- Direct Testimony of William Hinckley
- Direct Testimony of Gareth Kajander,
- Direct Testimony of Albert Owen
- Direct Testimony and Schedules of Maurice Brubaker on Cost of Service, Revenue Allocation and Rate Design
- Direct Testimony and Schedules of Maurice Brubaker on Fuel Adjustmemt, and
- Direct Testimony and Schedules of Jim Dauphinais (NP and HC versions)

Thank you for your assistance in bringing these filings to the attention of the Commission.

Very truly yours,

Diana M. Vuylsteke
DMV:ln

Attachments
cc: All Parties

Chicago
Hong Kong
Irvine
Jefferson City
Kansas City
Kuwait
Los Angeles
New York
Phoenix
Shanghai
St. Louis
Washington, DC

And Bryan Cave,
A Multinational Partnership,
London

Exhibit No.:
Witness: James R. Dauphinais
Type of Exhibit: Direct Testimony
Issue: Fuel Adjustment
Sponsoring Parties: Missouri Industrial Energy Consumers
Case No.: ER-2007-0002

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

**In the Matter of Union Electric Company)
d/b/a AmerenUE for Authority to File)
Tariffs Increasing Rates for Electric) Case No. ER-2007-0002
Service Provided to Customers in the)
Company's Missouri Service Area)**

Direct Testimony of

James R. Dauphinais

on Fuel Adjustment Issues

On Behalf of

Missouri Industrial Energy Consumers

December 29, 2006



BRUBAKER & ASSOCIATES, INC.
ST. LOUIS, MO 63141-2000

Project 8632

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Service Commission

**"NON-PROPRIETARY"
VERSION**

**BEFORE THE PUBLIC SERVICE COMMISSION
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In the matter of Union Electric Company)	
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STATE OF MISSOURI)
)
COUNTY OF ST. LOUIS) SS

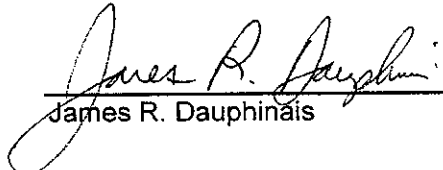
Affidavit of James R. Dauphinais

James R. Dauphinais, being first duly sworn, on his oath states:

1. My name is James R. Dauphinais. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

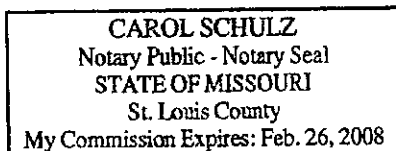
2. Attached hereto and made a part hereof for all purposes are my direct testimony and schedules on fuel adjustment issues which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2007-0002.

3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things they purport to show.



James R. Dauphinais

Subscribed and sworn to before me this 28th day of December, 2006.





Notary Public

My Commission Expires February 26, 2008.

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

<div style="border-bottom: 1px solid black; padding-bottom: 2px;">In the matter of Union Electric Company</div>)	
d/b/a AmerenUE for Authority to File)	
Tariffs Increasing Rates for Electric)	Case No. ER-2007-0002
Service Provided to Customers in the)	
Company's Missouri Service Area)	

Direct Testimony of James R. Dauphinais

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

2 A My name is James R. Dauphinais and my business address is 1215 Fern Ridge
3 Parkway, Suite 208, St. Louis, MO 63141.

4 **Q ARE YOU THE SAME JAMES R. DAUPHINAIS THAT FILED DIRECT TESTIMONY**
5 **ON REVENUE REQUIREMENT ISSUES IN THIS PROCEEDING?**

6 A Yes, I am.

7 **Q ON WHOSE BEHALF ARE YOU PRESENTING THIS DIRECT TESTIMONY ON**
8 **FUEL ADJUSTMENT ISSUES?**

9 A This testimony is presented on behalf of the Missouri Industrial Energy Consumers
10 (MIEC).

11 **Q WHAT IS THE SUBJECT OF YOUR TESTIMONY?**

12 A My testimony addresses issues related to AmerenUE's proposed Fuel Adjustment
13 Clause (FAC). I review AmerenUE's operations in the Midwest Independent
14 Transmission System Operator, Inc. (MISO) Day 2 Market and show the complexity

James R. Dauphinais
Page 1

1 of the allocation of costs and revenues between native load and off-system sales. I
2 also discuss the incentives to shift costs to native load and to shift revenues to off-
3 system sales if the Missouri Public Service Commission (Commission) approves
4 AmerenUE's proposed FAC.

5 I also discuss why no incentives are necessary to encourage AmerenUE to
6 make off-system sales in the MISO Day 2 Market environment. Finally, I provide an
7 off-system sales margin baseline based on the revenue requirement adjustment I
8 recommended in my revenue requirement direct testimony in this proceeding.

9 As I noted in my revenue requirement direct testimony, the fact that I do not
10 address an issue should not be interpreted as approval of any position taken by
11 AmerenUE.

12 **Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS.**

13 **A** I recommend that the Commission:

- 14 • Not adopt a fixed off-system sales margin component for AmerenUE's
15 revenue requirement.
- 16 • Assign 100% of AmerenUE's off-system sales margin to native load
17 customers.
- 18 • If despite my recommendations the Commission either fixes the off-system
19 sales margin component of AmerenUE's revenue requirement or assigns
20 less than 100% of AmerenUE's off-system sales margin to native load, the
21 Commission require AmerenUE to file a clear, complete, corrected and
22 detailed allocation method for all fuel and purchased power costs,
23 including MISO charges and credits. The corrections should include FAC
24 pass-through of MISO settlement charge adjustments to ratepayers, an
25 allocation of MISO Real-Time RSG Make Whole Payments to native load
26 customers, FAC pass-through of native load's allocation of both MISO
27 Day-Ahead and Real-Time RSG Make Whole Payments and allocation of
28 MISO Financial Transmission Rights (FTR) settlement amounts based on
29 the volume of FTRs actually obtained for native load and off-system sales.
30 Furthermore, as part of the FAC reconciliation process, the Commission
31 should conduct detailed audits of AmerenUE's conformance to these
32 methods.

- 1 • Require AmerenUE to include an adjustment for the impact Taum Sauk
2 would have had on AmerenUE's actual fuel costs, purchased power costs
3 and off-system sales revenues if it had still been operational.
- 4 • Adopt an off-system sales margin baseline of not less than \$214 million for
5 AmerenUE. This margin level flows from the \$31.1 million revenue
6 requirement adjustment I recommended in my revenue requirement direct
7 testimony in this proceeding. The margin level does not include any
8 upward adjustment for off-system sales volume. Any such upward
9 adjustment would further raise the off-system sales margin baseline.

10 **I. OPERATION IN MISO DAY 2 MARKET**

11 **Q WHAT IS THE MISO DAY 2 MARKET?**

12 A The MISO Day 2 Market is the regional centrally dispatched day-ahead and real-time
13 electric energy market operated by the MISO under the principles of Locational
14 Marginal Pricing (LMP). The MISO Day 2 Market has had a significant impact on the
15 way AmerenUE operates its system. It has also added complexity to the accounting
16 of fuel costs, purchased power costs and off-system sales revenues.

17 **Q PLEASE EXPLAIN HOW THE MISO DAY 2 MARKET HAS CHANGED**
18 **AMERENUE'S OPERATION OF ITS SYSTEM.**

19 A Prior to the start of the MISO Day 2 Market on April 1, 2005, AmerenEnergy
20 dispatched AmerenUE's generation under the Joint Dispatch Agreement (JDA) to
21 meet AmerenUE's load. Short-term purchases and sales of power by AmerenUE
22 were made exclusively through bilateral contracts or coordination arrangements such
23 as the JDA. Purchased power costs and off-system sales revenues were delineated
24 by their governing arrangements. The assignment of fuel costs and purchased power
25 costs to native load and off-system sales was also relatively straightforward as it was
26 an assignment of the lowest cost sources to serve native load (including losses).

1 Under the MISO Day 2 Market, the MISO performs a region-wide economic
2 dispatch based on supply offers, demand bids and actual load. This requires
3 AmerenUE to either self-schedule or offer into the MISO day-ahead and real-time
4 energy markets all of the generation that it has designated as Network Resources
5 under the MISO tariff. Avoiding costly adjustments (known as Real-Time Revenue
6 Sufficiency Guarantee, or RSG, First Pass Distribution Amount charges) effectively
7 requires AmerenUE to also bid its day-ahead forecast of hourly load into the MISO
8 day-ahead market as a demand bid.

9 In effect, this requires AmerenUE to sell all of its generation into the MISO
10 Day 2 Market and then purchase all of its power for native load back from the MISO.

11 **Q PLEASE EXPLAIN HOW THE MISO DAY 2 MARKET HAS SIGNIFICANTLY**
12 **COMPLICATED AMERENUE'S ACCOUNTING OF FUEL COSTS, PURCHASED**
13 **POWER COSTS AND OFF-SYSTEM SALES REVENUES.**

14 **A** It has complicated the accounting in several ways:

- 15 • There are over 30 different line items that need to be settled with the
16 MISO.
- 17 • There are multiple settlement periods and subsequent resettlements with
18 the MISO due to settlement disputes and various Federal Energy
19 Regulatory Commission (FERC) rulings associated with the settlement of
20 revenues and costs with the MISO.
- 21 • Certain revenues received from the MISO need to be netted against
22 certain costs charged by the MISO.

23 **Q WHY ARE THESE ACCOUNTING COMPLICATIONS RELEVANT TO THIS**
24 **PROCEEDING?**

25 **A** In this proceeding, AmerenUE has proposed to move from a rate structure under
26 which all components of its revenue requirement are fixed to a structure under which

1 rates are periodically adjusted. As proposed, native load fuel and purchased power
2 costs would be determined periodically pursuant to an FAC. AmerenUE's off-system
3 sales margin (which equals its off-system sales revenues less its off-system sales fuel
4 and purchased power costs) would be handled in one of two ways. Either it could
5 remain fixed or variations could be recognized with a sharing of the margin between
6 AmerenUE stockholders and native load customers. Under these approaches, there
7 is an incentive to shift the assignment of costs from off-system sales to native load
8 and the assignment of revenues from native load to off-system sales. The additional
9 accounting complications of the MISO Day 2 Market will make it very difficult for the
10 Commission to ensure AmerenUE is not shifting such costs and revenues to the
11 benefit of stockholders and the detriment of AmerenUE's retail customers in Missouri.

12 **Q CAN YOU ELABORATE ON WHY AMERENUE'S PROPOSED FAC CREATES**
13 **INCENTIVES FOR SHIFTING COSTS AND REVENUES?**

14 **A** Yes. Under AmerenUE's current rate structure, the fuel cost, purchased power cost
15 and off-system sales revenue components of the revenue requirement are in effect
16 fixed in the rates. AmerenUE currently bears the risk of higher fuel and purchased
17 power costs and lower off-system sales revenues and receives the benefit of lower
18 fuel and purchased power costs and higher off-system sales revenues. Currently,
19 AmerenUE receives no benefit from shifting the assignment of costs and revenues
20 between native load and off-system sales because these rate components are both
21 fixed.

22 Under AmerenUE's proposal, an FAC would be adopted for native load fuel
23 and purchased power costs, but AmerenUE's off-system sales margin component of
24 its revenue requirement would be fixed. AmerenUE's ratepayers would take on the
25 risks of AmerenUE's native load fuel and purchased power costs while stockholders

1 would retain the risks and benefit associated with AmerenUE's off-system sales
2 margin.

3 Under AmerenUE's proposal, every dollar shifted from off-system sales fuel
4 and purchased power costs to native load fuel and purchased power costs is a dollar
5 AmerenUE can retain for stockholders. Likewise, under AmerenUE's proposal, every
6 dollar of revenue shifted from native load to off-system sales is a dollar AmerenUE
7 can retain for stockholders. This provides a very strong incentive to shift such costs
8 and revenues to the detriment of retail customers in Missouri. This incentive does not
9 exist currently.

10 **Q WOULD THE SHARING MECHANISM FOR OFF-SYSTEM SALES MARGIN**
11 **DISCUSSED IN MR. SCHUKAR'S DIRECT TESTIMONY (SCHUKAR DIRECT**
12 **TESTIMONY AT 20-22) ADDRESS THIS CONCERN?**

13 **A** No. The situation would not be much better. While the off-system sales margin
14 component of AmerenUE's revenue requirement would not be fixed, the off-system
15 sales margin would instead be shared between native load and AmerenUE
16 stockholders. For example, under AmerenUE's alternative off-system sales margin
17 mechanism, when off-system sales margin is between \$181 million and \$360 million,
18 AmerenUE stockholders would retain \$0.50 of every dollar of cost shifted from off-
19 system sales to native load within the limits of the sharing cap (Schukar Direct
20 Testimony at 22). Similarly, stockholders would retain \$0.50 of every dollar of
21 revenue shifted from native load to off-system sales within the limits of the sharing
22 cap.

1 **Q IS THERE ANY WAY TO REMOVE THESE INCENTIVES?**

2 A Yes. The Commission could either disallow AmerenUE's FAC and alternative off-
3 system sales mechanism as proposed or modify them such that 100% of the off-
4 system sales margin is assigned to native load customers. Under either approach,
5 AmerenUE would be neutral to the assignment of costs and revenues between native
6 load and off-system sales. This would also address the concerns I raised in my
7 revenue requirement direct testimony in regard to the uncertainty associated with the
8 level of AmerenUE's off-system sales revenues (Dauphinais Revenue Requirement
9 Direct Testimony at 4-5). Finally, it would address the basic philosophical problems
10 with AmerenUE's alternative off-system sales margin mechanism that Mr. Brubaker
11 outlined in his direct testimony (Brubaker Revenue Requirement Direct Testimony at
12 13-14).

13 **Q WHAT ARE YOU RECOMMENDING?**

14 A I am recommending that AmerenUE's FAC not be approved unless it is modified to
15 include a reasonable version of the alternative off-system sales margin mechanism
16 that assigns 100% of AmerenUE's off-system sales margin to native load customers.
17 Without such a change the Commission would have the very difficult task of ensuring
18 that AmerenUE's fuel and purchased power costs, including over thirty (30) MISO
19 charges and credits, are being properly allocated by AmerenUE between native load
20 and off-system sales. I also recommend the Commission establish a baseline for
21 AmerenUE's off-system sales margin of not less than \$214 million based on the
22 adjustments to fuel costs, purchased power costs and off-system sales revenues that
23 I presented in my direct testimony (Dauphinais Revenue Requirement Direct
24 Testimony at 11). Schedule JRD-FAC-1 attached to this testimony shows how my
25 \$214 million baseline was calculated. This figure does not include any adjustment for

James R. Dauphinais
Page 7

1 a higher volume of off-system sales. While I am not proposing any such volume
2 adjustment at this time, an upward adjustment to volume would further raise the
3 baseline margin for off-system sales.

4 Q MR. SCHUKAR INDICATES THE SHARING OF OFF-SYSTEM SALES MARGINS
5 COULD BE USED AS AN INCENTIVE TO STRIVE TO MAXIMIZE OFF-SYSTEM
6 SALES MARGINS (SCHUKAR DIRECT TESTIMONY AT 22). ARE SUCH
7 INCENTIVES NECESSARY?

8 A No. As shown in AmerenUE's response to Data Request MIEC 18-11, [Highly
9 Confidential begins]

10

11

12

13

14

15 [Highly Confidential ends] Furthermore, as I noted earlier,
16 AmerenUE is required to self-schedule or offer all of its designated Network
17 Resources into the MISO day-ahead and real-time markets. Unlike with bilateral
18 sales, AmerenUE does not need to actively market or enter into negotiations to make
19 off-system sales to the MISO. The relatively passive nature of MISO off-system sales
20 obviates any need for incentives.



James R. Dauphinais
Page 8

1 **Q IF DESPITE YOUR RECOMMENDATION THE COMMISSION EITHER ALLOWS**
2 **AMERENUE TO HAVE AN FAC AND A FIXED OFF-SYSTEM SALES MARGIN, OR**
3 **ALLOWS AMERENUE TO FLOAT THE OFF-SYSTEM SALES MARGIN BUT KEEP**
4 **A SHARE OF IT, WHAT DO YOU RECOMMEND?**

5 A I would recommend that the Commission require AmerenUE to file a clear, complete
6 and detailed method for the assignment of costs and revenues between native load
7 and off-system sales. The documents provided by AmerenUE in testimony and
8 discovery in this proceeding are unclear and inadequate. They also unreasonably
9 assign certain costs and revenues to the detriment of native load customers. Under
10 such a regime, I would also recommend that in each FAC reconciliation the
11 Commission conduct a detailed audit of AmerenUE to ensure it is adhering to the cost
12 and revenue assignment methods that have been approved by the Commission.

13 **Q WOULD THESE ADDITIONAL STEPS BE NECESSARY IF THE COMMISSION**
14 **EITHER REJECTED AMERENUE'S PROPOSED FAC OR ADOPTED THE FAC**
15 **WITH THE ALTERNATIVE OFF-SYSTEM SALES MARGIN MECHANISM**
16 **MODIFIED TO ASSIGN THE ENTIRE OFF-SYSTEM SALES MARGIN TO NATIVE**
17 **LOAD CUSTOMERS?**

18 A No. While errors in the assignment of costs and revenues between native load and
19 off-system sales should be corrected and a clear, complete and detailed method for
20 the allocation would be beneficial, it would not be necessary to adopt my additional
21 recommendations since native load fuel and purchased power costs and off-system
22 sales margin would be treated identically (i.e., either both fixed or both floated and
23 assigned entirely to native load customers). Under such circumstances, there would
24 be no significant detriment to Missouri ratepayers if certain cost and revenues were

1 mis-assigned between native load and off-system sales. In addition, there would not
2 be an incentive to allocate or assign costs and revenues to benefit stockholders.

3 **II. AMERENUE'S PROPOSED METHOD OF ALLOCATING COSTS**
4 **AND REVENUES BETWEEN NATIVE LOAD AND OFF-SYSTEM SALES**

5 **Q HAVE YOU REVIEWED THE DOCUMENTS THE COMPANY HAS PROVIDED IN**
6 **REGARD TO THE ALLOCATION OF COSTS AND REVENUES BETWEEN NATIVE**
7 **LOAD AND OFF-SYSTEM SALES?**

8 **A** Yes. AmerenUE has provided three major documents. The first is AmerenUE's
9 proposed FAC itself, Rider A, which was included with Mr. Lyons' direct testimony.
10 The second document is AmerenUE's post-JDA generation allocation process which
11 was provided as Ameren's Supplemental Response No. 1 to Data Request MIEC
12 7-07. For the convenience of the Commission, I have included a copy of this
13 document as my Schedule JRD-FAC-2. The third document, which summarizes
14 AmerenUE's allocation of the 35 MISO settlement charges between native load and
15 off-system sales, was provided by AmerenUE in its Supplemental Response No. 1 to
16 Data Request MIEC 7-2. For the Commission's convenience, I have provided a copy
17 of this document as my Schedule JRD-FAC-3.

18 **Q PLEASE DESCRIBE HOW AMERENUE'S PROPOSED RIDER ASSIGNS COSTS**
19 **AND REVENUES BETWEEN NATIVE LOAD AND OFF-SYSTEM SALES.**

20 **A** Rider A calls for a periodic adjustment through an FAC of fuel and purchased power
21 costs for all energy supplied to Missouri retail customers to the extent the cost per
22 kWh vary from the Base Fuel Cost (BFC) that is included in AmerenUE's base rates.

23 In regard to the Cost of Purchased Power (CPP) specifically, the FPA includes
24 FERC Account Numbers 555, 565 and 575, excluding MISO administrative fees

1 arising under MISO Schedules 10, 16, 17 and 24, and excluding capacity charges for
2 contracts with terms in excess of one (1) year (Rider A at 98.2). No 400 series FERC
3 accounts (revenue) are included in the FPA under Rider A, despite the fact that
4 offsetting MISO credits will be booked to these accounts on occasion. Furthermore,
5 Rider A does not identify how AmerenUE will assign costs and credits in each FERC
6 account between native load and off-system sales.

7 **Q PLEASE DESCRIBE THE POST-JDA GENERATION ALLOCATION PROCESS**
8 **DOCUMENT.**

9 A This document (Schedule JRD-FAC-2) provides a very high level summary of how
10 AmerenUE proposes to assign its resources and power purchases to its native load
11 and off-system sales in each hour. [Highly Confidential begins]

12
13
14 [Highly
15 Confidential ends]

16 **Q DO YOU HAVE ANY CONCERNS WITH AMERENUE'S PROPOSED ALLOCATION**
17 **PROCESS?**

18 A Yes. I have several concerns. AmerenUE proposes to periodically vary native load
19 fuel and purchased power costs under the FAC while keeping the off-system sales
20 margin component of its revenue requirement fixed. As I have noted, this introduces
21 an incentive to shift costs and revenues to the detriment of AmerenUE's retail
22 customers in Missouri, making it imperative for the Commission to review and
23 specifically approve exactly how AmerenUE will assign costs and revenues between
24 native load and off-system sales.



James R. Dauphinais
Page 11

1 In addition, the allocation method should not be deemed confidential. The
2 generation allocation document in question contains no actual cost or revenue
3 information. Furthermore, it does not in any way identify how AmerenUE purchases
4 or sells power. Nor does it describe AmerenUE's future needs. It simply describes
5 how AmerenUE proposes to assign its overall fuel and purchased power cost
6 between native load and off-system sales. The information should be available to
7 AmerenUE's retail customers in Missouri. The release of this information will in no
8 way affect AmerenUE's costs or revenues outside of any regulatory changes made
9 by this Commission to AmerenUE's allocation method.

10 **Q WHAT ARE SOME OF YOUR OTHER CONCERNS WITH AMERENUE'S**
11 **PROPOSED GENERATION ALLOCATION PROCESS DOCUMENT?**

12 **A** The document lacks clarity and completeness. For example, the terms utilized in the
13 document are not defined. [Highly Confidential begins]

14

15

16

17 [Highly Confidential ends]

18 **Q CAN YOU OFFER OTHER EXAMPLES?**

19 **A** Yes. AmerenUE has not identified how it develops the values for its Day-Ahead
20 MISO purchases, Day-Ahead MISO sales, Real-Time MISO purchases and Real-
21 Time MISO sales. [Highly Confidential begins]

22

23 [Highly Confidential ends] But it is



James R. Dauphinais
Page 12

1 completely unclear how it develops a price for those day-ahead and real-time sales
2 from MISO settlement statements. From the document it is not possible to determine
3 whether AmerenUE is developing such prices in a reasonable manner.

4 **Q DESPITE THE LACK OF COMPLETENESS AND CLARITY IN AMERENUE'S**
5 **PROPOSED GENERATION ALLOCATION PROCESSES, HAVE YOU IDENTIFIED**
6 **ANY SPECIFIC PROBLEMS WITH THE DOCUMENT?**

7 **A** Yes. As an example, AmerenUE has not addressed its treatment of the Taum Sauk
8 pumped storage facility under its proposed FAC and the alternative off-system sales
9 margin mechanism. Mr. Baxter indicates in his direct testimony that AmerenUE did
10 model Taum Sauk in its PROSYM runs to develop its revenue requirement as if Taum
11 Sauk were still operational. He also argues customers are not affected by any
12 increased purchased power costs AmerenUE is actually incurring to replace energy
13 lost due to the unavailability of the plant, and are credited with margins from off-
14 system sales the Taum Sauk plant would have provided if it had remained in service
15 (Baxter Direct Testimony at 34-35).

16 This may be true if AmerenUE's FAC is rejected and the fuel cost, purchased
17 power cost and off-system sales revenue components of AmerenUE's revenue
18 requirement are fixed. However, if an FAC is adopted this will no longer be the case.
19 Neither will it be the case if AmerenUE's alternative off-system sales margin
20 mechanism were to be adopted. If AmerenUE's FAC, alternative off-system sales
21 margin mechanism or both are adopted, specific adjustments will need to be made to
22 AmerenUE's fuel cost, purchased power cost and off-system sales revenue to
23 account for the effect Taum Sauk would have had on these amounts if Taum Sauk
24 were still operational. Despite an outstanding data request (MIEC 17-5), AmerenUE

1 has not proposed any adjustment to these amounts to account for Taum Sauk nor
2 committed in any way to make such adjustments for Taum Sauk.

3 **Q PLEASE DESCRIBE AMERENUE'S DOCUMENT THAT ADDRESSES THE**
4 **ALLOCATION OF THE 35 MISO SETTLEMENT ITEMS THAT YOU HAVE**
5 **INCLUDED AS YOUR SCHEDULE JRD-FAC-3.**

6 **A** This document consists of a table which provides a general description of how each
7 MISO settlement item is allocated between native load and off-system (i.e.,
8 interchange) sales. AmerenUE has not deemed this document to be confidential.
9 However, the concerns I had with clarity, completeness and detail with AmerenUE's
10 proposed generation allocation process I also have with this table. The allocation
11 process for MISO settlement charges needs to be reviewed and approved by the
12 Commission to assure cost and revenues are appropriately being assigned by
13 AmerenUE.

14 **Q HAVE YOU IDENTIFIED ANY SPECIFIC PROBLEMS WITH AMERENUE'S**
15 **PROPOSED ALLOCATION?**

16 **A** Yes. Preliminarily, I have identified the following problems with AmerenUE's
17 proposed allocation of MISO settlement items:

- 18 • It is unclear whether MISO asset energy and non-asset energy amounts
19 are being reasonably allocated by AmerenUE between native load and off-
20 system sales.
- 21 • AmerenUE's allocation of certain credits related to MISO adjustments to
22 rates, volumes and calculations to FERC Account 447 rather than as
23 offsets against Account 555 charges is preventing the flow of these credits
24 back to ratepayers through AmerenUE's FAC.
- 25 • AmerenUE is unreasonably allocating MISO Real-Time Revenue
26 Sufficiency Guarantee (RSG) Make Whole Payment amounts entirely to
27 off-system sales.

- 1 • It is not clear if AmerenUE is properly netting MISO RSG Make Whole
2 Payment amounts from RSG Distribution amounts.
- 3 • AmerenUE's allocation of MISO virtual energy amounts between native
4 load and off-system sales is not sufficiently defined.
- 5 • AmerenUE is unreasonably allocating MISO Financial Transmission Right
6 (FTR) charges and credits between native load and off-system sales on
7 the basis of sales volumes rather than the basis of how FTRs are
8 allocated by MISO to AmerenUE.

9 **Q PLEASE EXPLAIN YOUR CONCERN WITH THE ALLOCATION OF ASSET**
10 **ENERGY AND NON-ASSET ENERGY AMOUNTS.**

11 **A**Asset energy is energy associated with physical generation and load. Non-asset
12 energy is associated with purchases of energy at locations where AmerenUE does
13 not have generation or load. My concern with AmerenUE's table entries for asset
14 energy and non-asset energy is that it is unclear how these amounts are reflected in
15 AmerenUE's proposed generation allocation procedure.

16 In each hour, there are Day-Ahead Asset Energy and Real-Time Asset Energy
17 settlement volumes at each of AmerenUE's over 80 generation and load nodes.
18 Under FERC Order No. 668, AmerenUE is required to net energy transactions such
19 that it is either a net seller or a net buyer from the RTO in each hour (FERC Order No.
20 668 at Paragraphs 80-84). It is not clear from AmerenUE's table (Schedule JRD-
21 FAC-3) how AmerenUE performs the FERC required netting of these energy
22 amounts. Furthermore, it is not clear how AmerenUE then allocates each net amount
23 between native load and off-system sales.

24 For example, AmerenUE's table appears to suggest the net Day-Ahead Asset
25 Energy amount is allocated in each hour to native load by transforming the amount
26 into a per kWh charge and applying it to AmerenUE's day-ahead forecasted load kWh

1 for that hour. However, this would appear to be counter to AmerenUE's generation
2 allocation document (Schedule JRD-FAC-2), [Highly Confidential begins]

3
4
5 [Highly Confidential ends] This lack of clarity makes
6 it impossible to determine the reasonableness of AmerenUE's proposed allocation of
7 MISO asset energy and non-asset energy settlement amounts.

8 **Q PLEASE EXPLAIN YOUR CONCERN WITH THE ASSIGNMENT OF CERTAIN**
9 **CREDITS RELATED TO MISO ADJUSTMENTS TO FERC ACCOUNT NO. 447**
10 **RATHER THAN AS OFFSETS AGAINST ACCOUNT NO. 555.**

11 **A** AmerenUE in its MISO allocation table (Schedule JRD-FAC-3) has indicated that it
12 will assign to FERC Account No. 447 any credit provided by the MISO for the Day-
13 Ahead RSG Distribution Amount, Real-Time Miscellaneous Amount and Real-Time
14 RSG First Pass Distribution Amount. In my experience, these three amounts are
15 generally charges except when the MISO makes an adjustment to past charges.
16 AmerenUE's response to Data Request MIEC 5-59/Staff 132 generally confirms this
17 to be the case.

18 AmerenUE's response to Data Request MIEC 5-59/Staff 132 also indicates
19 that adjustments to these charges were reflected in Account No. 447 rather than as
20 an offset to Account No. 555 charges because the computer system AmerenUE uses
21 to record MISO invoices only recognizes broad categories of MISO charges (RSG,
22 losses, congestion, etc.) and not individual charge types. AmerenUE goes on to
23 explain that since RSG as a broad category can be a credit (Account No. 447) or
24 charge (Account No. 555), its computer system assigned the MISO adjustment to
25 charges to Account No. 447 as a credit.



James R. Dauphinais
Page 16

1 This is unreasonable because any credits received from the MISO for the
2 Day-Ahead RSG Distribution, Real-Time Miscellaneous and Real-Time RSG First-
3 Pass Distribution settlement amounts are generally adjustments to past charges in
4 these categories – not revenues. As I have noted, none of the FERC's 400 series
5 accounts flow through AmerenUE's proposed FAC. Therefore, under AmerenUE's
6 approach these adjustments to charges paid under AmerenUE's proposed FAC in
7 past periods would not flow back to ratepayers.

8 **Q DO YOU HAVE A RECOMMENDATION TO ADDRESS THIS ISSUE?**

9 A Yes. AmerenUE should be required to either assign any credits received from the
10 MISO for the three aforementioned MISO settlement amounts as offsets to Account
11 No. 555 charges or alternatively modify its proposed FAC to flow through native
12 load's share of these credits booked under Account No. 447.

13 **Q PLEASE EXPLAIN YOUR ISSUE WITH AMERENUE'S PROPOSAL TO ENTIRELY**
14 **ALLOCATE THE REAL-TIME RSG MAKE WHOLE PAYMENT AMOUNTS TO OFF-**
15 **SYSTEM SALES.**

16 A MISO provides a revenue sufficiency guarantee to generators it brings on-line in
17 either the Day-Ahead or Real-Time market. Under the revenue sufficiency guarantee,
18 the MISO guarantees the generator will earn sufficient revenue to cover its startup, no
19 load and operating level energy offers. To the extent the applicable Locational
20 Marginal Price (LMP) paid to the generator does not meet the guarantee, the MISO
21 provides an RSG Make Whole Payment to the generator in either the day-ahead or
22 real-time market. MISO funds the RSG Make Whole Payments by collecting RSG
23 Distribution amounts.

1 In AmerenUE's MISO allocation table (Schedule JRD-FAC-3), AmerenUE is
2 proposing to allocate a substantial portion of its Real-Time RSG First Pass
3 Distribution Amount to native load while allocating all of the Real-RSG Make Whole
4 Payments it receives from the MISO to off-system sales. This is unreasonable.
5 Because Real-Time RSG Make Whole Payments are primarily funded by Real-Time
6 RSG First Pass Distribution Amount charges¹, AmerenUE's Real-Time RSG Make
7 Whole Payments should be allocated between native load and off-system sales in the
8 same manner as AmerenUE's Real-Time RSG First Pass Distribution Amounts are
9 allocated between native load and off-system sales.

10 Furthermore, the Real-Time RSG Make Whole Payments allocated to native
11 load should either be assigned as an offset against Account No. 555 charges or the
12 AmerenUE FAC needs to be modified to flow through native load's share of these
13 payments that are booked in Account No. 447. Otherwise, native load's share of
14 these off-setting payments will not flow through to AmerenUE's retail customers in
15 Missouri.

16 **Q IS THERE ALSO A NETTING PROBLEM WITH DAY-AHEAD RSG MAKE WHOLE**
17 **PAYMENTS FROM DAY-AHEAD RSG DISTRIBUTION AMOUNT CHARGES?**

18 **A** Yes. It appears from AmerenUE's MISO allocation table that Day-Ahead RSG Make
19 Whole Payments allocated to native load are being assigned to Account No. 447.
20 These credits either need to be recorded as an offset to Account No. 555 charges or
21 AmerenUE's FAC needs to be modified to flow through to ratepayers those

¹ The lesser, secondary source of funding Real-Time Make Whole Payments are Real-Time Second Pass Distribution Amounts which are collected by MISO as part of its Real-Time Miscellaneous Amount.

1 Day-Ahead RSG Make Whole Payments that are allocated to native load in Account
2 No. 447.

3 **Q WHAT IS YOUR ISSUE WITH AMERENUE'S TREATMENT OF THE DAY-AHEAD**
4 **VIRTUAL ENERGY AMOUNT AND REAL-TIME VIRTUAL ENERGY AMOUNT?**

5 A The virtual amounts are associated with virtual offers and bids in the MISO day-
6 ahead market. A virtual offer is a financial position taken in the MISO Day-Ahead
7 market to inject power at a particular location. A virtual bid is a financial position
8 taken in the MISO Day-Ahead market to extract power at a particular location. Virtual
9 bids and offers are generally utilized as hedging instruments.

10 My problem with AmerenUE's proposed treatment of virtual energy amounts is
11 that it is insufficiently detailed to determine whether it is reasonable. It is insufficient
12 for the treatment to simply stand as "Depends on nature of virtual," as proposed in
13 AmerenUE's MISO allocation table (Schedule JRD-FAC-3). AmerenUE needs to
14 specifically detail when it would use virtual transactions and how it would allocate the
15 MISO amounts associated with these transactions between native load and off-
16 system sales.

17 **Q WHAT IS YOUR ISSUE WITH THE FTR AMOUNTS?**

18 A The MISO FTR amounts are credits and charges associated with AmerenUE's
19 Financial Transmission Rights portfolio. My issue is that AmerenUE is proposing to
20 allocate these credits and charges between native load and off-system sales on a
21 volumetric basis. The MISO allocates FTRs to AmerenUE based on AmerenUE's

1 nominations for FTRs. These nominations are in turn based on AmerenUE's
2 designated Network Resources and Network load. It is likely that nearly all of FTRs
3 allocated by the MISO to AmerenUE are associated with transmission service for
4 native load. Therefore, the FTR amounts should be allocated to native load based on
5 the volume of FTRs allocated by the MISO to AmerenUE on behalf of native load
6 customers or purchased by Ameren on behalf of native load. The FTR amounts
7 should not be allocated based on the volume of native load sales activity. Otherwise,
8 the allocation of the FTR amounts will inappropriately shift credits and charges to off-
9 system sales to the detriment of AmerenUE's retail customers in Missouri.

10 **Q CAN YOU PLEASE SUMMARIZE YOUR CONCLUSIONS IN REGARD TO**
11 **AMERENUE'S PROPOSED ALLOCATION OF FUEL AND PURCHASED POWER**
12 **COSTS, INCLUDING MISO SETTLEMENT AMOUNTS, BETWEEN NATIVE LOAD**
13 **AND OFF-SYSTEM SALES?**

14 **A** AmerenUE's proposed FAC, generation allocation process (Schedule JRD-FAC-2)
15 and MISO allocation table (Schedule JRD-FAC-3) are unclear, incomplete and not
16 sufficiently detailed in regard to the allocation of fuel and purchased power costs
17 between native load and off-system sales. In addition, they fail to make an
18 adjustment to account for the impact Taum Sauk would have had on fuel and
19 purchased power costs if Taum Sauk were still operational. It is not possible to tell
20 from the documents whether AmerenUE is reasonably allocating MISO asset energy,
21 non-asset energy and virtual energy settlement amounts. It is also not clear from the
22 documents whether AmerenUE is properly netting RSG Make Whole Payments
23 allocated to native load from RSG Distribution amounts allocated to native load.

1 Preliminarily, it is clear from the documents that AmerenUE's proposed
2 allocation of certain MISO settlement amounts is unreasonable. These are as
3 follows:

- 4 • AmerenUE is proposing to assign MISO adjustments to previously
5 incurred MISO charges to Account 447 rather than as offsets to Account
6 555 charges. This prevents the flow of these adjustments back to
7 ratepayers since AmerenUE's FAC does not pass through any FERC 400
8 series account amounts. AmerenUE should be required to either assign
9 these adjustments to Account 555 or modify its FAC to pass through
10 native load's allocation of Account 447 amounts.
- 11 • AmerenUE is unreasonably proposing to entirely allocate MISO Real-Time
12 RSG Make Whole Payments to off-system sales. These payments are
13 offsets to MISO Real-Time RSG First Pass Distribution and Real-Time
14 Miscellaneous settlement amounts. The payments should be allocated
15 between native load and off-system sales in the same manner as the
16 MISO Real-Time RSG First Pass Distribution amount is allocated between
17 native load and off-system sales. Furthermore, native load's allocation of
18 both Real-Time and Day-Ahead RSG Make Whole Payments should
19 either be assigned as an offset to Account 555 charges or AmerenUE's
20 FAC should be modified to pass through native load's allocation of these
21 payments booked in Account 447 to ratepayers.
- 22 • AmerenUE is unreasonably allocating its MISO FTR settlement amounts
23 between native load and off-system sales on the basis of sales activity.
24 AmerenUE should instead be allocating MISO FTR settlement amounts
25 between native load and off-system sales on the basis of the volume of
26 FTRs obtained on behalf of native load and off-system sales by
27 AmerenUE.

28 **Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY ON FUEL ADJUSTMENT**
29 **ISSUES?**

30 **A Yes, it does.**

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Non-Proprietary

Missouri Public Service Commission
Case No. ER-2007-0002

Union Electric Company
d/b/a AmerenUE

Estimate of the Impact of Adjusting AmerenUE's Fuel Oil, Natural Gas and Wholesale Electricity Spot Prices to Historic 2006 Levels

Line	Description	Amount	Notes
1	Total Production Cost Model Fuel Oil and Natural Gas Cost - Native Load Case	\$***	From AmerenUE's response to Data Request MPSC - 0140
2	Total Production Cost Model Non-APL Purchased Power Cost - Native Load Case	\$***	From AmerenUE's response to Data Request MPSC - 0140
3	Average Production Cost Model Panhandle Eastern Natural Gas Price	\$*** per MMBtu	From AmerenUE's response to Data Request MPSC - 0140
4	Average Production Cost Model Wholesale Electricity Price	\$*** per MWh	From AmerenUE's response to Data Request MPSC - 0140
5	Average Historic January - November 2006 Henry Hub Natural Gas Price	\$*** per MMBtu	From Platts Gas Daily's "Daily Price Survey"
6	Average Historic January - November 2006 Panhandle Eastern Basis Differential	\$*** per MMBtu	From Platts Gas Daily's "Daily Price Survey"
7	Average Historic January - November 2006 MISO DA Electricity Price for AMRN.MERAMEC1	\$*** per MWh	From www.midwestiso.org
8	Estimated Increase in AmerenUE Fuel Oil and Natural Gas Cost - Native Load Case	***	Line 1 * (Line 5 + Line 6) / Line 3) - Line 1
9	Estimated Increase in AmerenUE Purchased Power Cost - Native Load Case	***	Line 2 * (Line 7 / Line 4) - Line 2
10	Estimated Increase in AmerenUE Off-System Sales Revenue - Wholesale Sales Case	\$***	From Schedule JRD-1, Line 9
11	Estimated Increase in AmerenUE Fuel Oil and Natural Gas Cost - Wholesale Sales Case	\$***	From Schedule JRD-1, Line 10
12	Estimated Increase in AmerenUE Purchased Power Cost - Wholesale Sales Case	\$***	From Schedule JRD-1, Line 11
13	Increase in Margin	***	Line 10 - Line 11 - Line 12 + Line 8 + Line 9
14	Total Production Cost Margin	\$***	From AmerenUE Workpaper, TDF-WP2 -19
15	Recommended Minimum Margin Baseline	***	Line 13 + Line 14

Schedule JRD-FAC-1

Non-Proprietary

AmerenUE's Response to
MIEC Data Request
MPSC Case No. ER-2007-0002
AmerenUE's Tariff Filing to Increase Rates for Electric Service
Provided to Customers In the Company's Missouri Service Area

Requested From: Diana Vuylsteke

Data Request No. MIEC 7-07

Does the Company allocate generation between native load and off-system sales on an hourly basis? Please explain the Company's answer in detail and describe in detail how the allocation occurs.

Supplemental Response No. 1:

See the attached information.

Non-Proprietary

Prepared By: Kent Crnokrak

Title: Managing Supv, RTO, Mkts and Derivatives

Date: December 11, 2006

Non-Proprietary

AmerenUE's Response to
MIEC Data Request
MPSC Case No. ER-2007-0002
AmerenUE's Tariff Filing to Increase Rates for Electric Service
Provided to Customers In the Company's Missouri Service Area

Requested From: Bob Kaiser

Data Request No. MIEC 7-02

For each of the MISO settlement items listed below, please indicate whether the Company proposes to include the item in its proposed Fuel Adjustment Clause (FAC) and how the Company proposes to allocate the item between the Company's native load customers and the Company's off-system sales.

- a. Day-Ahead Market Administration Amount
- b. Day-Ahead Asset Energy Amount
- c. Day-Ahead Financial Bilateral Transaction Congestion Amount
- d. Day-Ahead Financial Bilateral Transaction Loss Amount
- e. Day-Ahead Congestion Rebate on Carve Out Grandfathered Agreements
- f. Day-Ahead Losses Rebate on Carve Out Grandfathered Agreements
- g. Day-Ahead Congestion Rebate on Option B Grandfathered Agreements
- h. Day-Ahead Losses Rebate on Option B Grandfathered Agreements
- i. Day-Ahead Non-Asset Energy Amount
- j. Day-Ahead Revenue Sufficiency Guarantee Distribution Amount
- k. Day-Ahead Revenue Sufficiency Guarantee Make Whole Payment Amount
- l. Day-Ahead Schedule 24 Allocation Amount
- m. Day-Ahead Virtual Energy Amount
- n. Financial Transmission Rights Market Administration Amount
- o. Financial Transmission Rights Hourly Allocation Amount
- p. Financial Transmission Rights Monthly Allocation Amount
- q. Financial Transmission Rights Transaction Amount
- r. Financial Transmission Rights Yearly Allocation Amount
- s. Real-Time Market Administration Amount
- t. Real-Time Asset Energy Amount
- u. Real-Time Financial Bilateral Transaction Congestion Amount
- v. Real-Time Financial Bilateral Transaction Loss Amount
- w. Real-Time Congestion Rebate on Carve Out Grandfathered Agreements
- x. Real-Time Losses Rebate on Carve Out Grandfathered Agreements
- y. Real-Time Distribution of Losses Amount
- z. Real-Time Miscellaneous Amount
- aa. Real-Time Non-Asset Energy Amount
- bb. Real-Time Net Inadvertent Distribution Amount
- cc. Real-Time Revenue Neutrality Uplift
- dd. Real-Time Revenue Sufficiency Guarantee First Pass Distribution Amount
- ee. Real-Time Revenue Sufficiency Guarantee Make Whole Payment Amount
- ff. Real-Time Schedule 24 Allocation Amount
- gg. Real-Time Schedule 24 Distribution Amount
- hh. Real-Time Uninstructed Deviation Amount
- ii. Real-Time Schedule 24 Allocation Amount Virtual Energy Amount

Supplemental Response No. 1:

See the attached information

Prepared By: Paul Mertens
Title: Assistant Manager of Fuel Planning
Date: December 11, 2006

MISO Charge Types	Native Load	Interchange Sales	Allocation Method	FERC Major	Comments
DA Asset Energy Amount	Forecasted Load	Excess above Forecasted Load	Volumetric charge	447 (credit) / 555 (charge)	Charge for participation in Energy Market
DA Congestion Rebate on Carve-out GFA	n/a	n/a		555	UE - No GFAs
DA Congestion Rebate on Option B GFA	n/a	n/a		555	UE - No GFAs
DA Financial Bilateral Transaction Congestion Amount	Forecasted volume for forecasted load	Forecasted volume for sales	Volumetric charge	555	Charge for participation in Energy Market
DA Financial Bilateral Transaction Loss Amount	Forecasted volume for forecasted load	Forecasted volume for sales	Volumetric charge	555	Related to transmission of energy but with Energy Market, charged to Energy
DA Loss Rebate on Carve-out GFA	n/a	n/a		555	UE - No GFAs
DA Loss Rebate on Option B GFA	n/a	n/a		555	UE - No GFAs
DA Market Administration Amount	Forecasted Load	Excess above Forecasted Load	Volumetric charge	575	Charge for participation in Energy Market
DA Non-Asset Energy Amount	Purchases for Native Load	Purchases for Interchange Sales	Volumetric charge	447 (credit) / 555 (charge)	Charge for participation in Energy Market
DA Revenue Sufficiency Guarantee Distribution Amount	Forecasted Load	Excess above Forecasted Load	Volumetric charge	447 (credit) / 555 (charge)	Charge for participation in Energy Market
DA Revenue Sufficiency Guarantee Make Whole Payment Amount	Ratio of (Gen. for Native Load/Total Gen) * MWP	Ratio of (Gen. for Interchange/Total Gen) * MWP	Based on credits received	447 (credit) / 555 (charge)	Credited to Generators only
DA Schedule 24 Allocation Amount	Forecasted Load	n/a	Volumetric charge	551	Charge for participation in Energy Market (essentially an admin charge)
DA Virtual Energy Amount	Depends on nature of virtual	Depends on nature of virtual		555	Dependent on Virtual Strategy
FTR Hourly Allocation Amount	Native Load Activity	Interchange Sales Activity	Volumetric charge	565 (initial annual congestion)	Based on characteristics for FTRs load
FTR Market Administration Amount	Native Load Activity	Interchange Sales Activity	Volumetric charge	565 (initial annual congestion)	Based on characteristics for FTRs load
FTR Monthly Allocation Amount	Native Load Activity	Interchange Sales Activity	Volumetric charge	565 (initial annual congestion)	Based on characteristics for FTRs load
FTR Monthly Allocation Amount	Native Load Activity	Interchange Sales Activity	Volumetric charge	565 (initial annual congestion)	Based on characteristics for FTRs load
FTR Transmission Amount	Native Load Activity	Interchange Sales Activity	Volumetric charge	565 (initial annual congestion)	Based on characteristics for FTRs load
FTR Yearly Allocation Amount	Actual Native load volume - Forecasted DA Load	Actual Interchange volume - DA interchange volume	Deviation from DA Volume	447 (credit) / 555 (charge)	Charge for participation in Energy Market
RT Asset Energy Amount	n/a	n/a		555	UE - No GFAs
RT Congestion Rebate on Carve-out GFA	Actual native load volume	Forecasted Physical Schedule volume	Volumetric charge	555	Related to transmission of energy but with Energy Market, charged to Energy
RT Distribution of Losses Amount	n/a	n/a		555	RT Financials not currently used. Charge for participation in Energy Market
RT Financial Bilateral Transaction Congestion Amount	n/a	n/a		555	RT Financials not currently used. Related to transmission of energy but with Energy Market, charged to Energy
RT Financial Bilateral Transaction Loss Amount	n/a	n/a		555	UE - No GFAs
RT Loss Rebate on Carve-out GFA	n/a	n/a		555	UE - No GFAs
RT Market Administration Amount	Actual Native load volume - Forecasted DA Load	Actual Interchange volume - DA interchange volume	Deviation from DA Volume	575	Charge for participation in Energy Market
RT Miscellaneous Amount	Actual native load volume	Actual Interchange volume	Volumetric charge	447 (credit) / 555 (charge)	Charge for participation in Energy Market
RT Net Inadvertent Distribution Amount	Ratio of (Actual native load volume/total load) * Charge	Ratio of (Actual Interchange volume/total load) * Charge		447 (credit) / 555 (charge)	Charge for participation in Energy Market
RT Non-Asset Energy Amount	Purchases for Native Load	Purchases for Interchange Sales	Deviation from DA Volume	447 (credit) / 555 (charge)	Charge for participation in Energy Market
RT Revenue Neutrality Uplift Amount	Actual native load volume	Ratio of (Interchange Sales - Generation for Sales (25%))	Volumetric charge	555	Charge for participation in Energy Market
RT Revenue Sufficiency Guarantee First Pass Distribution	Ratio of (Native Load - Generation for Native Load (60%)) * Total RSS	Total RSS	Ratio times total charge	447 (credit) / 555 (charge)	Credited to Generators only
RT Revenue Sufficiency Guarantee Make Whole Payment Amount	n/a	Total MWP Received	Based on credits received	447 (credit) / 555 (charge)	Charge for participation in Energy Market (essentially an admin charge)
RT Schedule 24 Allocation Amount	Actual Native load volume - Forecasted DA Load	n/a	Deviation from DA Volume	551	Charge for participation in Energy Market
RT Schedule 24 Distribution Amount	Actual Native load volume - Forecasted DA Load	n/a	Deviation from DA Volume	551	Credit to Balancing Authority only
RT Uninstructed Deviation Amount	Ratio of (Generation for Native Load/Total Generation) * Total UD	Ratio of (Generation for Interchange Sales/Total Generation) * Total UD	Deviation from DA Volume	555	Credit to Generators only
RT Virtual Energy Amount	Depends on nature of virtual	Depends on nature of virtual	Ratio times total charge	555	Dependent on Virtual Strategy