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Rate Design
Witness: Michael S. Scheperle
Sponsoring Party: MO PSC Staff
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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

SURREBUTTAL TESTIMONY

OF

MICHAEL S. SCHEPERLE

**UNION ELECTRIC COMPANY
d/b/a AmerenUE**

CASE NO. ER-2010-0036

**Jefferson City, Missouri
March 2010**

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

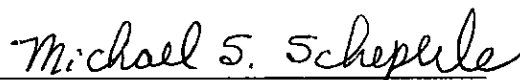
In the Matter of Union Electric Company)
d/b/a AmerenUE's Tariffs to Increase its)
Annual Revenues for Electric Service.)

Case No. ER-2010-0036

AFFIDAVIT OF MICHAEL S. SCHEPERLE

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Michael S. Scheperle, of lawful age, on his oath states: that he has participated in the preparation of the following Surrebuttal Testimony in question and answer form, consisting of 14 pages of Surrebuttal Testimony to be presented in the above case, that the answers in the following Surrebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.


Michael S. Scheperle

Subscribed and sworn to before me this 5th day of March, 2010.



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

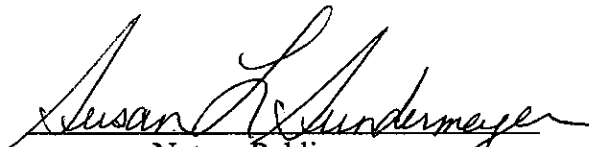

Notary Public

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MICHAEL S. SCHEPERLE

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CASE NO. ER-2010-0036

A. I respond to the rebuttal testimony of AmerenUE witness Weiss regarding AmerenUE's proposed Environmental Cost Recovery Mechanism (ECRM); AmerenUE witness Baxter regarding AmerenUE's rate design recommendations for low-income residential customers; AmerenUE witness Cooper regarding AmerenUE's residential tier charges; AmerenUE witness Cooper's, AmerenUE's witness Warwick's and MIEC witness Brubaker's responses to the Class Cost-of-Service (CCOS) allocators Staff presented in the direct case; Public Counsel witness Meisenheimer's recommendation on which peak load data should be used if the Commission relies on the Average & Peak 4 CP allocation

1 method for determining the production cost allocator; and The Municipals Group witness
2 Eastman's recommendation on street lighting.

3 **Executive Summary**

4 Q. Please summarize your surrebuttal testimony.

5 A. With regard to AmerenUE's proposed Environmental Cost Recovery
6 Mechanism, I present Staff's disagreement with AmerenUE that the language "No major
7 capital projects shall be included until the Commission determines that the project is
8 operational and useful for service as required by Section 393.135 RSMo 2000" should not be
9 part of the ECRM and Staff's agreement with certain other changes to the proposed ECRM
10 Rider rate schedules and customer bill language Staff presented in its direct case that are
11 presented by AmerenUE witness Weiss. With regard to the quoted language, to better match
12 it with the wording of Section 393.135, Staff is modifying its proposal slightly so that the
13 sentence would read, "No major capital projects shall be included until the Commission
14 determines that the project is fully operational and used for service, as required by Section
15 393.135 RSMo 2000."

16 With regard to AmerenUE's rate design recommendations for low-income residential
17 customers, I present Staff's nonsupport for the recommendations because they would provide
18 rate relief to all residential customers, not just low-income residential customers.

19 With regard to AmerenUE's, MIEC's and Public Counsel's criticisms and positions
20 stated in rebuttal regarding CCOS studies and allocators, I present Staff's disagreement with
21 the charge made by AmerenUE witness Cooper and MIEC witness Brubaker that the use of an
22 average and peak method for determining the production capacity allocator double counts the
23 average demand. I respond to MIEC witness Brubaker's assertion the average and peak

1 methods Staff used have not ever been adopted by the Commission, and Mr. Brubaker's
2 assertion Staff's production capacity allocation methodology gives only seven to thirteen
3 percent weighting to AmerenUE's highest summer peak demands. I present Staff's
4 agreement with AmerenUE witness Warwick's criticism of MIEC witness Brubaker's use of
5 the 4 NCP A&E allocation methodology to develop a cost allocator for AmerenUE's
6 transmission costs and agreement with Mr. Warwick that a 12 CP methodology is the
7 appropriate allocation methodology to use. I present Staff's disagreement with MIEC witness
8 Brubaker's position that net margins from off-system sales should be allocated to the classes
9 with an energy-based allocator rather than a production-capacity based allocator and his
10 position that fuel costs should be allocated to the classes based on higher load factor
11 customers receiving below average fuel costs and low load factor customers receiving above
12 average fuel costs, rather than allocating fuel costs to customer classes based on the energy
13 usage of each class. I present Staff's disagreement with Public Counsel witness
14 Meisenheimer's recommendation of the peak demand data that should be used if the
15 Commission relies on the Average & Peak 4 CP allocation method for determining the
16 production cost allocator.

17 Finally, I present Staff's disagreement with The Municipal Group witness Eastman's
18 recommendation on street lighting.

19 **Environmental Cost Recovery Mechanism**

20 Q. On page 10, lines 2-7 of his rebuttal testimony, based on bill space limitations,
21 Mr. Weiss proposes modifying the Staff's proposed wording on customers' bills for the
22 ECRM to be "ENVIRONMENTAL COST RECOVERY ADJ" instead of

1 “ENVIRONMENTAL COST RECOVERY ADJUSTMENT.” Is AmerenUE’s proposed
2 change acceptable to Staff?

3 A. Yes.

4 Q. On page 10, lines 8-19 of his rebuttal testimony, Mr. Weiss proposes two
5 changes he characterizes as small corrections to Staff’s proposed ECRM Rider rate schedules
6 (Schedules MSS-9-1 through MSS-9-6). Does Staff agree with these two proposed changes?

7 A. Yes. Staff is in agreement with these changes, which are corrections.

8 Q. On page 10, lines 16-19 of his rebuttal testimony, Mr. Weiss discusses Staff’s
9 definition of “ERR” in the ECRM tariff sheets Staff provided in its direct case as exemplars
10 of how AmerenUE’s ECRM tariff sheets should be if the Commission authorizes AmerenUE
11 to use an ECRM. Does Staff agree with AmerenUE’s recommendation to change the
12 definition of “ERR” in these ECRM tariff sheets?

13 A. No. The last sentence in Staff’s definition reads, “No major capital projects
14 shall be included until the Commission determines that the project is operational and useful
15 for service as required by 393.135 RSMo. 2000.” AmerenUE believes the sentence is
16 problematic and unnecessary. To better match it with the wording of Section 393.135, Staff is
17 modifying its proposal slightly so that the sentence would read, “No major capital projects
18 shall be included until the Commission determines that the project is fully operational and
19 used for service, as required by Section 393.135 RSMo 2000.” On the advice of counsel,
20 Staff believes the sentence is both a requirement of Section 393.135, RSMo 2000 that must be
21 satisfied and a necessary safeguard to allow the Commission to determine the project is
22 actually providing benefit to AmerenUE’s ratepaying customers before any capitalized project
23 amount is billed to customers under the applicable ECRM Rider rate. Delaying AmerenUE’s

1 recovery of project costs from its retail customers is not Staff's goal, but in the opinion of
2 Staff's counsel such projects must satisfy the "fully operational and used for service"
3 requirement of Section 393.135 RSMo. 2000 before AmerenUE may lawfully recover the
4 costs of them through an ECRM, or any other means. If Staff or any other party has a concern
5 about whether a project is fully operational and used for service, that concern should be
6 addressed by the Commission before AmerenUE's retail customers make any ECRM
7 payments for that project.

8 **AmerenUE Rate Design Recommendation for Low-Income Residential Customers**

9 Q. On pages 3-4, lines 42-46 and 1-6, of his rebuttal testimony, AmerenUE
10 witness Baxter states, "[W]e recommend that the Commission consider adopting a rate design
11 that would help mitigate the impact of any increase that is ultimately approved in this case on
12 Missouri families (including our low income customers). As a consequence, the Commission
13 should consider shifting 1% of the total costs that would otherwise be borne by the residential
14 class to the Large Primary Service and Large Transmission Service classes, which currently
15 pay much lower rates than the Residential class." Does Staff support this recommendation?

16 A. No. Staff realizes AmerenUE made this recommendation to address residential
17 concerns expressed at the local public hearings in this case and Staff does support the concept
18 of a program addressing low-income customers. However, Staff is concerned with
19 AmerenUE's proposal that all residential customers receive a discounted rate, or an overall
20 revenue-neutral shift between rate classes to reduce rates for the residential class for the sole
21 goal of reducing the economic burden on all or part of those in that class, and not on a class
22 cost of service basis. As described in the rebuttal and surrebuttal testimony of Staff witness
23 Anne Ross, Staff would limit any such benefit to only low-income residential customers and,

1 at this time, provide it through an experimental program so any economic benefit of the
2 program can be evaluated before it is implemented on a broader basis.

3 **Residential Customer Charge**

4 Q. How did AmerenUE respond in rebuttal testimony to Staff's residential
5 customer charge recommendation of an increase from \$7.25 to \$8.50?

6 A. AmerenUE opposes Staff's recommendation as detailed in AmerenUE witness
7 Cooper's rebuttal testimony on pages 11-12 asserting a greater increase to \$10.00 is warranted
8 by Staff's and AmerenUE's class cost-of-service studies. Staff believes the recommendation
9 by AmerenUE to increase the residential customer charge from \$7.25 to \$10.00 is too large
10 (37.9%) of an increase for residential customers. Staff continues to recommend a modest
11 increase in the residential customer charge to \$8.50, taking into consideration that
12 AmerenUE's residential customer charge has not increased since 2000 as well as the rate
13 impact to customers of increasing the customer charge. Staff's recommendation is based on
14 Staff's judgment of public acceptance and preference for rate stability.

15 **Accusation of Double Counting – Production Capacity Allocator**

16 Q. On page 4, lines 5-6 of his rebuttal testimony, AmerenUE witness Cooper
17 states that the use of the Average and Peak (A&P) method is inherently flawed because it
18 double counts the average demand of customer classes. Likewise, on page 14, lines 6-8 of his
19 rebuttal testimony, MIEC witness Brubaker makes the same assertion. What is Staff's
20 response to this same criticism by two different parties?

21 A. The Commission has seen and rejected this argument in the past. A
22 Commission decision in Case Nos. EO-85-17 and ER-85-60 notes that once one accepts the
23 A&P method, the question of double counting becomes academic. Under the A&P method

1 utilized by Staff and adopted by the Commission, there is no double-counting. The double
2 counting only occurs if the peak responsibility is accepted. Because the Commission
3 appropriately rejected the peak responsibility theory in favor of the utilization of capacity at
4 both peak and average loads approach, there is no double-counting. Each class is allocated
5 costs based on utilization of capacity at both peak and average loads. In a Commission Order
6 involving AmerenUE in Case Nos. EO-85-17 and ER-85-60, the Commission stated:

7 Industrials contend there is no evidence hourly average data accurately track
8 costs. They contend the AP method double-counts high load factor customers
9 and that Staff's cost of service study has serious technical flaws. Staff based
10 its position on the premise that capacity utilization throughout the year is the
11 proper method to allocate costs. Staff's method views the UE system from a
12 standpoint of what types and how much capacity would be purchased to meet
13 demands in every hour of the year if it assumed no production plant exists at
14 the beginning of the year (p. 142, 147).

15
16 Elsewhere in the Order the Commission stated:

17 Once one accepts the [Time of Use] TOU theory and adopts the AP method as
18 the closest approximation without the actual load, the question of double
19 counting as charged by Industrials becomes academic. The double counting
20 alleged by Industrials only occurs if the peak responsibility theory is accepted.
21 Under the TOU/AP method utilized by Staff and adopted by the Commission
22 herein, there is no double counting. Each class is allocated costs based on
23 utilization of capacity at both peak and average loads. The double counting
24 allegation comes from Industrials' position that specific demands cause
25 additional capacity to be constructed. The Commission finds that the existing
26 customers have no property rights in any particular rate or rate design and that
27 it is the Commission's responsibility to determine what method most
28 accurately tracks the cost of the UE system caused by customer classes. Staff
29 states the chronological occurrence of the load has nothing to do with the
30 principal of cost causation as it relates to cost responsibility. The Commission
31 agrees with this position (p. 149)."

32
33 Q. What is your conclusion based on the Commission's Report and Order in Case
34 Nos. EO-85-17 and ER-85-60?

35 A. Mr. Brubaker and Mr. Cooper's contention that Staff's CCOS studies are
36 flawed due to double counting are incorrect. In its Report and Order in Case Nos. EO-85-17

1 and ER-85-60 the Commission clearly states that under the TOU/A&P method, there is no
2 double counting.

3 **Importance of Precedence**

4 Q. On page 25-26, lines 14-24, 1-3, of his rebuttal testimony, MIEC witness
5 Brubaker states that CCOS studies that have not withstood the test of time must be viewed
6 with skepticism, and proponents of such methods bear a special burden of proving that they
7 do a more accurate job of identifying cost-causation than do recognized methods. Mr.
8 Brubaker also states on page 3 of his rebuttal testimony that Staff's A&P methods have not
9 ever been adopted by this Commission. Has this Commission previously adopted Staff's
10 Capacity Utilization A&P method?

11 A. Yes. This Commission, in 1983, issued a decision in *Re Kansas City Power &*
12 *Light Company*, Case No. EO-78-161, February 28, 1983, Report and Order, in which it
13 expressly stated:

14 ... As will be discussed in greater detail, *infra*, based on the evidence
15 presented in this case, the commission finds the time-of-use method to be the
16 most theoretically appropriate approach for allocating generation costs and,
17 further, finds the average and peak allocation method for fixed generation cost
18 as the most reasonable alternative to a full time-of-use procedure. As a result
19 of these findings, the updated cost-of-service study to be submitted by KCPL
20 shall contain either: (a) a full hourly time-of-use allocation of both fixed and
21 variable generation costs to the customer classes, or (b) an average and peak
22 allocation of fixed generation costs and an allocation of variable generation
23 costs on the basis of annual class energy usage adjusted for losses.
24

25 Therefore, based on the findings that fixed generation and bulk transmission
26 costs should be allocated to the customer classes based on class demand levels
27 and that the average and peak method gives a degree of consideration to off-
28 peak usage of generation facilities, the commission concludes that the average
29 and peak method, as proposed by the staff, provides the most reasonable
30 alternative to the time-of-use procedure for allocating the costs involved.
31

1 In addition, in *Re Arkansas Power & Light Company*, Case No. ER-81-364, 25
2 Mo.P.S.C.(N.S.) 101, 113 Report and Order (1982) and *Re Union Electric Company*, Case
3 Nos. EO-85-17 and ER-85-160, 27 Mo.P.S.C.(N.S.) 183, 274 – Report and Order (1985) the
4 Commission approved the TOU method and adopted the A&P method as a practical
5 alternative to approximate the TOU method which at that time was impractical to implement.

6 Q. Is MIEC witness Brubaker correct that Staff's A&P methods have never been
7 adopted by this Commission?

8 A. No. Mr. Brubaker's statement is not true. Staff outlined at least three cases
9 above where this Commission adopted the **A&P** method.

10 Q. Has this Commission ever adopted the Four Non-Coincidental Class Peak,
11 Average and Excess (4 NCP A&E) method proposed by MIEC witness Brubaker?

12 A. Not to my knowledge. The Capacity Utilization A&P Method proposed by
13 Staff expressly has been adopted by this Commission at least three times as detailed above,
14 but if this Commission has ever adopted the Four Non-Coincidental Class Peak, Average and
15 Excess (4 NCP A&E) method, I am unaware of it.

16 **Importance of Summer Peaks**

17 Q. On page 15, lines 9-15, of his rebuttal testimony, MIEC witness Brubaker
18 states that it is the summer peak demands that drive the need for additional generation
19 capacity and that an allocation methodology which gives only 7% to 13% weighting to the
20 highest summer peak demands cannot be reasonable. Mr. Brubaker further contends that
21 Staff's allocations skew the results so that high load factor customers are allocated a
22 significant amount of costs for which they have no responsibility for causing. Do you agree?

1 A. No. Staff disagrees with Mr. Brubaker's percentages. Staff agrees that
2 AmerenUE is a summer peaking utility. In AmerenUE's territory, the highest peak demands
3 have typically occurred in the summer due to air conditioning load. Both of Staff's CCOS
4 studies (4 CP A&P; Capacity Utilization A&P) give more weight to the summer months in
5 deriving allocation factors. The production-capacity "Peak" component of the 4 CP A&P
6 method provides a 100% "Peak" component as it considers the four months with the highest
7 peak demand, which occur during the summer months (June – September). The Capacity
8 Utilization A&P method also considers the summer months by allocating approximately 48%
9 of costs to the summer months (June – September). Mr. Brubaker is incorrect when he states
10 in his rebuttal testimony that Staff uses a 7% to 13% weighting of the highest summer peak
11 demands.

12 **Transmission Costs Allocation**

13 Q. On pages 2-3, lines 16-19 and 1-12 of his rebuttal testimony AmerenUE
14 witness Warwick disagrees with MIEC witness Brubaker on how transmission costs should be
15 allocated. Does Staff agree with AmerenUE witness Warwick on how transmission costs
16 should be allocated?

17 A. Yes. Staff and AmerenUE have used the same method for allocating
18 transmission system costs. AmerenUE witness Warwick explains that the 4 NCP A&E
19 allocation method MIEC uses for deriving production allocators has little justification for use
20 to derive a transmission allocator as MIEC proposed. Mr. Warwick and Staff believe it is
21 more appropriate that transmission system costs be allocated using a method which employs
22 class demands during peak periods, and that a 12-month CP method is appropriate. As stated

1 earlier, Staff used and supports the same method as AmerenUE for deriving the transmission
2 system costs allocator.

3 **Revenues from Off-System Sales**

4 Q. On page 26, lines 14-19 in his rebuttal testimony, MIEC witness Brubaker
5 states: “It appears that both OPC and Staff have allocated the net margins (revenues minus
6 estimated fuel and purchased power costs) to classes on the basis of a demand allocation
7 factor. This is comparable to AmerenUE’s allocation, which I believe to be inferior to an
8 energy-based allocation.” Does Staff agree with Mr. Brubaker?

9 A. No. Staff differs with Mr. Brubaker’s position that the off-system sales
10 margins allocator should be based on an energy component. In Staff’s Class Cost-of-Service
11 study, fuel expenses for off-system sales and the cost of purchased power for off-system sales
12 were subtracted from off-system sales revenues to provide the margin from off-system sales.
13 Removing the fuel expenses and the cost of purchased power removes the energy dependent
14 component of the off-system sales. The margin (net) from off-system sales was generated by
15 AmerenUE’s generation facilities. Since the margin from off-system sales is a result of
16 AmerenUE’s generation facilities where Staff removed the energy component in its Class
17 Cost-of-Service study, Staff appropriately allocated the off-system sales margin using Staff’s
18 A&P production-capacity allocator.

19 **Fuel Costs Allocation**

20 Q. On page 22, lines 4-9 of his rebuttal testimony, MIEC witness Brubaker states:
21 “The fuel cost allocation should recognize that the higher load factor customer classes should
22 receive below average fuel costs to correspond to the above-average capital cost (similar to
23 base load units) allocated to them, and the lower load factor classes should get an allocation of

1 fuel costs that is above the average, corresponding to the lower than average capital cost (i.e.,
2 peaking units) allocated to them.” Does Staff agree?

3 A. No. While somewhat intuitively attractive, the argument has no merit. Utilities
4 do not build only peaking capacity to meet the needs of their low load factor customers and
5 only baseload capacity to meet the needs of the high load factor customers. Utilities build
6 capacity to meet all the load of their customers all the time. Further the Commission
7 previously addressed this same argument in its Report and Order in a Union Electric
8 Company case, Case Nos. EO-85-17 and ER-85-160. There the Commission stated:

9 The Commission finds that the existing customers have no property rights in
10 any particular rate or rate design and that it is the Commission’s responsibility
11 to determine what method most accurately tracks the cost of the UE system
12 caused by customer classes. Staff states the chronological occurrence of the
13 load has nothing to do with the principal of cost causation as it relates to cost
14 responsibility. The Commission agrees with this position (p. 149).
15

16 The Commission also stated in the Report and Order:

17 Industrials’ argument concerning the unfairness of the allocation of average
18 costs to primary service customers is a restatement of their position that
19 existing customers have rights in the current structure. This is not true, as
20 stated earlier. The Commission has found Staff’s method to most closely
21 associate costs with utilization and the results are not unfair on that basis
22 (p. 150).
23

24 Q. How does Staff allocate fuel costs in its Class Cost-of-Service study?

25 A. Staff allocates fuel costs by the amount of energy (kWh including losses) that
26 each class used. This method allocates the average cost of fuels to the classes.

27 Q. Does Staff’s method allocate too much of the capacity costs to the high load
28 factor customers?

1 A. No. Most of the high load factor customers are in the Large Primary and the
2 Transmission classes. Staff's A&P allocator properly allocates fuel costs to these classes
3 based on the kWh (including losses) that each class used.

4 **Peak Information Used in Staff CCOS Report**

5 Q. On page 3, lines 9-12, of her rebuttal testimony, Public Counsel witness
6 Meisenheimer states her belief that the primary factor contributing to the difference between
7 OPC and Staff 4 CP A&P allocators are that OPC used weather normalized peak demand data
8 while Staff used peak demand data that was not adjusted to normal weather. Is she correct?

9 A. No. Staff and OPC used the same data source but Staff updated its data based
10 on information AmerenUE provided in its response to Staff DR 0178. In its response to that
11 DR, AmerenUE corrected its data for customers who switched rate classes in 2008 and for
12 having inadvertently using incorrect energy loss rates instead of system peak loss rates. The
13 difference between the 4 CP A&P allocator of OPC and Staff has nothing to do with weather
14 normalized peaks or actual peaks.

15 **Street Lighting Recommendation**

16 Q. On page 15, lines 1-14 of his rebuttal testimony, Mr. Eastman, on behalf of
17 The Municipal Group, recommends that AmerenUE commence a CCOS study for street
18 lighting and recommends that there be no increase for street lighting rates under rate
19 schedules 5M and 6M. Mr. Eastman also recommends that the 10% discount currently
20 offered to municipalities be increased to 20%. Does Staff agree?

21 A. Yes and no. Staff agrees that AmerenUE should file a CCOS study for street
22 lighting in its next rate case. But Staff does not agree with the recommendation that there be
23 no rate increase for street lighting or that the current 10% discount be increased to 20%.

Surrebuttal Testimony of
Michael S. Scheperle

1 AmerenUE's Street lighting revenue is approximately \$31,295,000. Based on Staff's
2 midpoint recommendation of 10.68% (from Staff's direct testimony), the increase in revenue
3 requirement responsibility of street lighting customers is approximately \$3,342,000. If street
4 lighting rate schedules do not receive the average increase, then the other rate classes would
5 receive a higher percentage increase. Staff recommends in the absence of a CCOS study to
6 support a change, the street lighting rate schedules receive the average percent increase
7 authorized by the Commission.

8 Q. Does this conclude your surrebuttal testimony?

9 A. Yes, it does.