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Witness: James A. Busch
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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

REBUTTAL TESTIMONY

OF

JAMES A. BUSCH

UNION ELECTRIC COMPANY d/b/a

AMERENUE

CASE NO. ER-2007-0002

Jefferson City, Missouri
February 2007

Staff Exhibit No. 205
Case No(s) ER-2007-0002
Date 3/29/07 Rptr fb

EXHIBIT

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

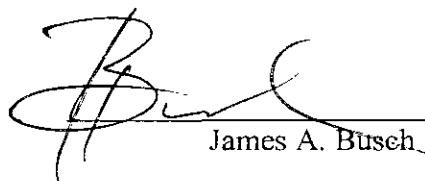
In the Matter of Union Electric Company)
d/b/a AmerenUE for Authority to File)
Tariffs Increasing Rates for Electric)
Service Provided to Customers in the)
Company's Missouri Service Area.)

Case No. ER-2007-0002

AFFIDAVIT OF JAMES A. BUSCH

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

James A. Busch, of lawful age, on his oath states: that he has participated in the preparation of the following Rebuttal Testimony in question and answer form, consisting of 5 pages of Rebuttal Testimony to be presented in the above case, that the answers in the following Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.


James A. Busch

Subscribed and sworn to before me this 2nd day of February, 2007.



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


Notary Public

My commission expires 9-21-10

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REBUTTAL TESTIMONY

OF

JAMES A. BUSCH

UNION ELECTRIC COMPANY d/b/a

AMERENUE

CASE NO. ER-2007-0002

Q. Please state your name and business address.

A. My name is James A. Busch and my business address is P. O. Box 360,
Jefferson City, Missouri 65102.

Q. By whom are you employed and in what capacity?

A. I am a Regulatory Economist III in the Economic Analysis Section of the
Energy Department, Utility Operations Division of the Missouri Public Service Commission
(Staff).

Q. Are you the same James A. Busch that filed direct testimony earlier in this
proceeding?

A. Yes I am.

Q. What is the purpose of your rebuttal testimony in this case?

A. I respond to the different production capacity allocators parties' rely on in
their Class Cost of Service Studies.

Class Cost of Service Study – Allocation of Production Capacity and Transmission

Costs

Q. Which parties have class cost of service (CCOS) studies?

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1 A. The Staff, AmerenUE, the Office of the Public Counsel, and the Missouri
2 Industrial Energy Consumers (MIEC) present CCOS study results. Other parties, such as
3 AARP, Noranda, and The Commercial Group discuss CCOS issues in their direct testimony.

4 Q. Are there various ways to allocate production capacity and transmission costs?

5 A. Yes. One way is the average and peak (A&P) method. Staff, the Office of the
6 Public Counsel (OPC), and AARP all utilized a variation of the A&P method. Another way
7 is Time-of-Use. OPC, in a second CCOS, used a Time-of-Use allocation method. A third
8 way is the average and excess (A&E) method. Both AmerenUE and MIEC utilized
9 variations of the A&E method.

10 Q. How does this A&E method used by AmerenUE and MIEC differ from the
11 A&P method used by Staff?

12 A. The difference between the two methods is how the demand piece of the
13 allocator is determined. Both methods agree on the average piece of the allocator.

14 Q. What is the difference between the two methods in the demand piece of the
15 allocator?

16 A. The demand-related piece of the A&E method is determined by taking the
17 difference between a class' peak demand and its average demand. In the case of Mr.
18 Brubaker's CCOS study, each class' peak demand is determined by using the maximum class
19 demands during the summer months of June, July, and August (Brubaker direct, page 25).
20 AmerenUE's method takes each class' peak demand during the summer months of June –
21 September (Cooper direct, page 14, lines 6 – 10).

22 The Staff's method determines the appropriate demand-related weight by
23 using the Capacity Utilization method as described in the direct testimony of David Roos.
24 This method generally takes the monthly demands for each class for each month of the year,

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1 not just the three highest months, and determines each class' percent of that monthly
2 maximum demand.

3 Q. Why does an electric utility increase its generation capacity costs?

4 A. If you follow the logic of the A&E method as proposed by Mssrs. Brubaker
5 and Cooper, you would expect that the only reason an electric utility adds generation capacity
6 is to meet peak demands (Brubaker direct, page 22, lines 9 - 10, Cooper direct, page 13, lines
7 12 - 15). However, that is not the entire case. Electric utilities add generation capacity costs
8 when it reduces its running costs of meeting its load requirements throughout the year by
9 more than the cost of additional capacity.

10 Q. What do you mean by your statement that electric utilities add generation
11 capacity costs to meet its load requirements throughout the year rather than just to meet its
12 peak requirements?

13 A. There are three basic types of electric generation facilities, base, intermediate,
14 and peaking. Base generation facilities are generally the most expensive capacity plants to
15 build and use coal or nuclear energy to generate electricity. Peaking generation facilities are
16 generally the least expensive to build and usually use natural gas to generate electricity. Base
17 generation facilities generally have lower running costs than peaking generation facilities.

18 Therefore, if, as suggested by Mr. Brubaker in his direct testimony, the
19 primary driver which continues to cause a utility to expand its generation and transmission
20 capacity (Brubaker direct, page 25, lines 5 - 9), it would only make sense that the appropriate
21 generation facility to build would be a relative cheaper peaking facility, i.e. a natural gas
22 combustion turbine. Since the only reason to expand a electric utility's generation capacity
23 are peak loads (according to Mr. Brubaker), it would make zero economic sense to spend

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1 billions of dollars to build a base generation facility since that new generation facility would
2 only be run during the peak months.

3 Q. If generation and transmission facilities are built to satisfy the yearly loads of
4 an electric utility, is the A&E method employed by Mr. Brubaker and Mr. Cooper more
5 reasonable than the Average and Peak method?

6 A. No. The A&E method does not take into account the fact that generation
7 facilities are built to meet the entire load of the electric utility. The A&E method unfairly
8 puts too great of a responsibility on the classes that have lower load factors. This happens
9 because the demand-related piece of the allocator is determined by the difference of each
10 class' peak demand and the class' average demand. Thus, a low load factor class would have
11 a greater difference between its peak demand and its average demand causing a greater
12 amount of costs to be allocated to that class.

13 On the other hand, the A&P method considers all class' contribution to the
14 system's total load, as opposed to each class' excess demands at peak. This is a more
15 reasonable approach because the peak is a function of the loads of each class, not just one
16 class.

17 Q. Would you provide an example that demonstrates why the shifting of costs to
18 the lower load factor class under the A&E method leads to a less reasonable result than if the
19 A&P method is used?

20 A. Let's compare two customers. One customer, customer A, has a constant
21 demand of 10 MWs. The other customer, customer B, has an average demand of 5 MWs and
22 a peak demand of 10 MWs for three months out of the year. The load factor of customer A
23 would be 100%. The load factor of customer B would be 50%. According to the A&E
24 method, the excess demand would be zero because its peak would be exactly equal to its

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1 average demand. Thus, all of the demand-related piece would be assigned to customer B, the
2 low load factor customer. The result under the A&P method is more reasonable than the
3 result under the A&E method.

4 Q. Did Staff use the same A&P method that OPC and AARP used?

5 A. No. Staff used a 12 non-coincident peak (NCP) variation of the A&P method.
6 OPC used a 3-coincident peak (CP) variation, while AARP used a 1-CP variation.

7 Q. Is Staff's 12 NCPs variation more reasonable than the OPC and AARP
8 Coincident Peak variation?

9 A. Yes, because it takes into account every month of the year, not just the month
10 with the highest peak. Including the entire year is particularly significant with regard to
11 generating facility maintenance. Generation facilities need to be taken out of service for
12 maintenance. This would generally occur during low demand months. The amount of
13 capacity to meet all of the systems loads must take into account the demands in these low
14 demand months as well as the months in which the system may be peaking. Staff's 12 NCP
15 takes this into account.

16 Q. What is the difference between a noncoincident peak and a coincident peak?

17 A. A noncoincident peak refers to each class' monthly peak regardless of when it
18 occurred. A coincident peak refers to the each class' monthly peak during the month when
19 the entire systems peak. Therefore, assuming any one individual class' peak did not occur
20 during the system peak, the sum of the noncoincident peaks of each class total more than the
21 coincident peak.

22 Q. Does this conclude your rebuttal testimony?

23 A. Yes.