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Witness: James A. Busch
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Case No.: ER-2007-0002
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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

SURREBUTTAL TESTIMONY

OF

JAMES A. BUSCH

UNION ELECTRIC COMPANY d/b/a

AMERENUE

CASE NO. ER-2007-0002

**Jefferson City, Missouri
February 2007**

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

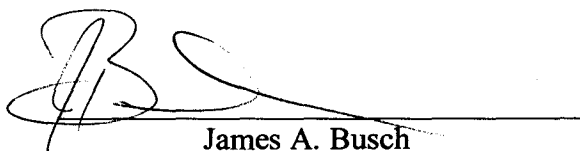
In the Matter of Union Electric Company)
d/b/a AmerenUE for Authority to File)
Tariffs Increasing Rates for Electric)
Service Provided to Customers in the)
Company's Missouri Service Area.)

Case No. ER-2007-0002

AFFIDAVIT OF JAMES A. BUSCH

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

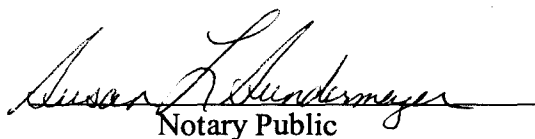
James A. Busch, of lawful age, on his oath states: that he has participated in the preparation of the following Surrebuttal Testimony in question and answer form, consisting of 9 pages of Surrebuttal Testimony to be presented in the above case, that the answers in the following Surrebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.


James A. Busch

Subscribed and sworn to before me this 26th 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

TABLE OF CONTENTS
SURREBUTTAL TESTIMONY
OF
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EXECUTIVE SUMMARY	2
CLASS COST OF SERVICE STUDY –PRODUCTION CAPACITY ALLOCATION.....	2
RATE DESIGN	7

EXECUTIVE SUMMARY

Q. Would you briefly summarize your surrebuttal testimony?

A. I respond to the criticisms of the Staff's Average and Peak method for allocating production capacity. In this response, I explain that the Average and Peak method is superior to the Average and Excess method because Average and Excess does not properly allocate costs to customers based on their load factors. Finally, I update Staff's rate design recommendation.

CLASS COST OF SERVICE STUDY –PRODUCTION CAPACITY ALLOCATION

Q. Do you agree with the various witnesses that the major difference between the CCOS studies presented in this proceeding is the appropriate allocation of production capacity costs?

A. Yes.

Q. What allocation method did Staff use for production capacity costs?

A. Staff utilized the 12 noncoincident peak (NCP) average and peak (A&P) method.

Q. Why is the 12 NCP A&P method a more reasonable method to allocate production capacity costs than the Average & Excess (A&E) method supported by MIEC, The Commercial Group, and AmerenUE?

A. The 12 NCP A&P method is more reasonable than the A&E method because it properly takes into account production capacity costs throughout the entire year. That is, it doesn't simply look at the summer peak demand. What the 12 NCP A&P method incorporates is the fact that capacity is needed to meet demand on the system for each and every hour of the 8,760 hours in the year, not just the summer peak demands.

Surrebuttal Testimony of
James A. Busch

1 Q. Why is that important?

2 A. Let's do a quick review of AmerenUE's generating facilities. The facilities
3 include peaking combustion turbine plants such as Peno Creek which generally are used only
4 to meet system peak demands and are relatively inexpensive to build (in comparison to other
5 generating facilities). It also includes the Callaway Nuclear facility (Callaway). This plant
6 generally runs during every hour of the year, except when it is off-line for maintenance or an
7 unexpected outage. When it was built over 20 years ago in the 1980's, this facility cost
8 approximately 2 billion dollars to build and provides approximately 1,200 MW in capacity.
9 The cost to build a similar facility today would be even greater. According to the A&E
10 method and the argument made by Mssrs. Brubaker, Higgins, and Cooper, system peaks are
11 the main reason for adding capacity. Callaway was not built due to changes in the system
12 peak demand. Due to the capacity costs of building Callaway, it was built to meet demand
13 throughout the year.

14 Q. One of the criticisms of the A&P method is an assertion it double counts the
15 electrical usage of high load factor customers. Do you have a response to that criticism?

16 A. Yes. Mssrs. Brubaker, Cooper, and Higgins all argue that the A&P method is
17 faulty due to the issue of double counting. They claim, that since a high load factor does not
18 have a peak relative to its average demand, that the A&P method double counts the average
19 demand. Followed to its illogical conclusion, as demonstrated by the example in Mr. Higgins
20 rebuttal testimony (Higgins rebuttal, page 14, lines 1 – 8), a customer with a 100% load
21 factor should not have its contribution to peaks accounted for in determining its fair share of
22 production capacity costs.

1 This is why the large customers oppose the A&P method in favor of the A&E
2 method, a method which benefits the large customers to the detriment of low load factor
3 customers, i.e. residential consumers.

4 Q. Why is the A&P method more reasonable than the A&E method?

5 A. Using Mr. Higgins example of a two class system, “Peaky” and “Flat,” let’s
6 look at the logic of the A&P method. The A&P method like the A&E method weights the
7 allocator based on average demand. The difference in the methods is how they weight peak
8 demands. The A&P method considers every class’ contribution to the peak. On the other
9 hand, the A&E method only considers each class’ excess demand at peak compared to their
10 respective average demand. An electric system’s generation facilities are not built to meet a
11 class’ demands in excess of some average. An electric system’s generation facilities are built
12 to meet every class’ demands throughout the year. That is, the system needs to have capacity
13 available on the warmest summer day, the coldest winter day, and each and every day in
14 between.

15 Q. Please continue.

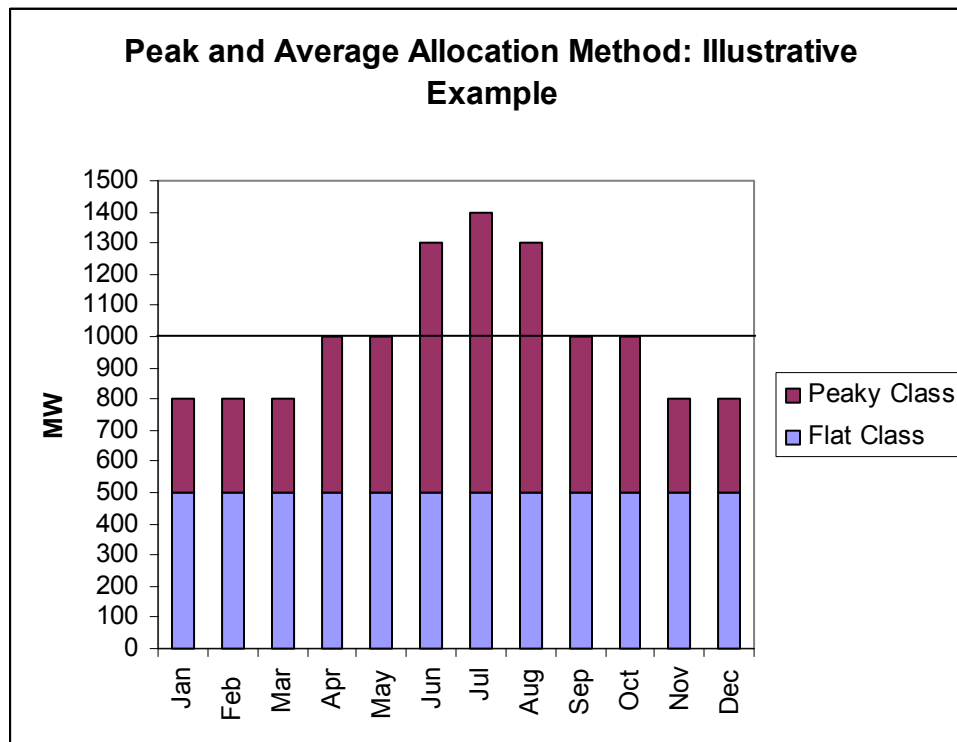
16 A. As noted earlier in this testimony, AmerenUE has various types of generating
17 facilities. Gas turbines, such as Peno Creek, are most economically used to meet short-term
18 peak loads that are greater than the base load. These plants are relatively inexpensive to
19 build, but have high operating costs. AmerenUE’s nuclear facility, i.e. Callaway, and the
20 various coal units are most economically used to serve base load. These facilities are very
21 expensive to build, but have low operating costs. These units are built for base load run all
22 the time, except when they need to shut down for maintenance or other unplanned outages.
23 The A&P method takes into consideration not only the average demand of each class which

1 is served mostly by base load generation, but also each class' contribution to peak demand
2 which is provided by peaking generation. This is important because during times of system
3 peak demand, **every class** is putting strains on the system. In other words, not only are the
4 base load units running, but so are the peaking units. This is because all classes, whether they
5 have a high or low load factor, are in need of electricity at the time of system peak.

6 Q. Do you have any further explanation of why the A&P method is more
7 reasonable than the A&E method?

8 A. Yes. Please refer to Figure 1 below. This is a re-creation of Figure KCH-1
9 from Mr. Higgins testimony.

10 Figure 1



11
12 According to the A&E method, only the excess demand for the Peaky class should be
13 used in the excess piece of the allocator. Even though the Flat class is the cause of the
14 majority of the need for capacity in the months of January through March and November

Surrebuttal Testimony of
James A. Busch

1 through December, and has the same capacity requirements as the peaky class in April, May,
2 September, and October, the A&E method championed by the Mssrs. Higgins, Brubaker, and
3 Cooper, ignores these requirements on the system, to the detriment of the peaky class, i.e.,
4 residential consumers.

5 Q. Which type of units would be running during the months of June through
6 August in Figure 1 above to most economically meet system peak demands and which should
7 be the basis for allocation in the A&E method?

8 A. To meet the summer peak demands in those months, in addition to the
9 baseload units, the low capacity cost peaking units would be running to meet those demands.

10 Q. What types generating facilities would running in January, February, March,
11 November, and December to most economically meet the greater needs of the flat class and
12 which is ignored in the A&E method?

13 A. Typically, the high capacity cost nuclear and coal plants would run during
14 those months to meet system requirements.

15 Q. If you accept the argument of the proponents of the A&E method, who should
16 pay the majority of the costs for the high capacity cost base load units?

17 A. The Peaky customers should pay the majority of the baseload costs because
18 their loads are higher than that of the Flat customers during the summer peak.

19 Q. What would be the allocation between the Peaky class and the Flat class under
20 the A&P and A&E methods?

21 A. In this example, the allocation between the classes using the A&P method
22 would be: Peaky - .5357 and Flat - .4643. The allocation between the classes using the A&E
23 method would be: Peaky - .6429 and Flat - .3571. Both of these results used a 3

1 noncoincident peak form of the method. Interestingly, if you just looked at the allocation
2 between the Peaky class and the Flat class using an one coincident peak method, i.e. just
3 allocate the production capacity costs based on each class' demands at system peak, the
4 results would be as follows: Peaky - .6429 and Flat - .3571. Thus under an A&E method, the
5 results would be the same as if you simply allocated the costs based on coincident peak. In
6 other words, the A&E method does not take into account average usage at all as claimed by
7 Mssrs. Higgins, Brubaker, and Cooper. The A&E method in reality only looks at peak
8 demand. Since the A&P method appropriately weights average demand and peak usage, it is
9 the superior allocator for production capacity.

10 Q. Do you have anything else to add on this issue?

11 A. Yes. Due to the nature of electric generating facilities, they must be taken
12 offline at times for maintenance. This generally occurs during periods of low demand, i.e.,
13 October or April. When these plants are taken offline, other generating facilities must be run
14 to replace the lost capacity. Thus, high load factor customers receive capacity from a
15 peaking-type unit during these periods when the base load unit is offline and the low load
16 factor customers are not putting huge demands on the system. So even though the high load
17 factor customer may not be causing the need for a peaking unit in June through August, it
18 does cause the need for extra capacity to meet its electricity needs when base load facilities
19 are offline for maintenance.

20 RATE DESIGN

21 Q. Did Staff update its Class Cost of Service (CCOS) study it presented in direct
22 testimony?

Surrebuttal Testimony of
James A. Busch

1 A. Yes. Please see the surrebuttal testimony of Staff expert David Roos for an
2 explanation of the updates to Staff's CCOS.

3 Q. Does the updated CCOS study change the Staff's revenue neutral rate design
4 recommendation?

5 A. No. Staff still believes that the Commission should temper any movements
6 toward cost of service in this case due to the potential magnitude of the change in revenue
7 requirement. Therefore Staff believes that any class within 5% of its cost of service should
8 not have any revenue shifts. Those classes that are shown to be more than 5% above their
9 cost of service should get some relief to get them within 5%. This relief should come from
10 the class or classes furthest away from its, or their, cost of service, but only if they are more
11 than 5% below cost of service.

12 Q. How would this be done based on the Staff's updated CCOS study?

13 A. According to Staff's CCOS study, the Residential, Small General Service, and
14 Large Transmission Service classes would get no revenue shifts. The Large General Service
15 (LGS) is above the 5% threshold and should have revenues shifted away from it. The Large
16 Primary Service class is furthest away from its cost of service, and its revenues are more than
17 5% below its cost of service, and, therefore, should be the class that gets revenues shifted to it
18 due to the shift away from LGS.

19 Q. Does Staff's recommendation apply only to Staff's CCOS study results?

20 A. No. If the Commission does not find in favor of Staff's CCOS study, Staff's
21 underlying method for shifting revenues can be applied to any CCOS study.

22 Q. What is Staff's recommendation with regard to the various rate elements for
23 each rate class?

Surrebuttal Testimony of
James A. Busch

1 A. Staff still recommends that all rate elements be decreased or increased by the
2 system average plus any revenue neutral shifts.

3 Q. Does this conclude your rebuttal testimony?

4 A. Yes.