MEMORANDUM

TO: Missouri Public Service Commission Official Case File,
Case No. GR-2002-438, Union Electric Company d/b/a AmerenUE

FROM: Dave Sommerer, Manager - Procurement Analysis Department
Anne Allee, Regulatory Auditor - Procurement Analysis Department
Kwang Choe, Ph.D., Regulatory Economist – Procurement Analysis Department
Lesa Jenkins, P.E., Regulatory Engineer - Procurement Analysis Department

/s/ Dave Sommerer 05/15/03	/s/ Lera L. Shemwell 05/15/03
Project Coordinator / Date	General Counsel's Office / Date

SUBJECT: Staff Recommendation in Case No. GR-2002-438, Union Electric Company d/b/a AmerenUE's 2001-2002 Actual Cost Adjustment Filing

DATE: May 15, 2003

The Procurement Analysis Department (Staff) has reviewed Union Electric Company d/b/a AmerenUE's (Company or AmerenUE) 2001-2002 Actual Cost Adjustment (ACA) filing. This filing was made on October 17, 2002, and is docketed as Case No. GR-2002-438. The filing contains the Company's calculations of the ACA and Refund balances.

AmerenUE separates its Missouri gas operations into the following pipeline service areas: Panhandle Eastern Pipe Line (PEPL or Panhandle), Texas Eastern Transmission Corporation (TETCO), and Natural Gas Pipeline Company of America (NGPL). PEPL serves approximately 90,000 customers in the Jefferson City/Columbia area. TETCO serves approximately 19,600 customers in the Cape Girardeau area. NGPL serves approximately 2,000 customers in the town of Advance.

Staff's review included an analysis of the billed revenues and actual gas costs used in the Company's computation of its ACA rates. A comparison of billed revenue recovery with actual gas costs will result in an over-recovery or under-recovery of the ACA and Refund balances. Staff also reviewed AmerenUE's gas purchasing practices to determine the prudence of the Company's purchasing decisions.

In addition, Staff conducted a reliability analysis for AmerenUE including: 1) review of information required to be submitted in response to the reliability recommendations in the 2000-2001 Staff's ACA recommendation in Case No. GR-2001-488; 2) estimation of peak-day requirements and the capacity levels to meet those requirements; 3) review of peak-day reserve margin and the rationale for this reserve margin; 4) comparison of actual demand to estimated demand; and 5) review of natural gas supply plans.

PURCHASING PRACTICES

In Spring 2001, AmerenUE implemented its hedging plan for its gas procurement for the November 2001 through March 2002 winter heating season. The hedging plan was intended to mitigate the price volatility of the commodity during the heating season. The implementation was designed to protect at least ** HC ** of normal requirements of each service area with fixed or hedged price structures. Storage is used to provide a targeted ** HC ** of normal winter requirements. The protection level against market volatility varies among the three service areas. The price protection includes storage, fixed-forward baseload contracts, embedded hedges such as a collar, call and put options, and financial natural gas swaps. AmerenUE used a price-forecasting model utilizing the NYMEX forward price to project price levels for normal, minimum and maximum winter periods. It also used a computer program called SENDOUT to assist with modeling the winter requirements associated with high, low and normal demand levels. AmerenUE received regular natural gas market analyses from energy and financial firms.

RELIABILITY ANALYSIS

AmerenUE submitted copies of the same demand studies used in the 1999/2000 ACA review. No changes in growth or other assumptions are provided for the 2000/2001 peak-day demand estimate. The models used to estimate the peak day for the Fisk/Lutesville area and Jefferson City/Columbia area are based on a review of November 1995 – May 2000 system loads. The model used to estimate the peak day for the Cape Girardeau area is based on a review of January 1996 - May 1999 system loads. The Company submitted estimates of peak-day demand requirements should the coldest temperature in the past 30 years recur. Staff continues to have the following concerns regarding the peak day estimates:

1. The model selected by the Company to estimate a peak day for the Fisk/Lutesville area tends to overestimate usage.

    a. For comparison, a linear regression model shows a reserve margin of ** HC ** compared to that of ** HC ** estimated by the model chosen by the Company (not including the Point Operator Agreement). Since there are no fixed reservation costs associated with one of the contracts, Staff is not proposing an adjustment.

    b. Since none of the recent cold days are near the 30-year record cold day of 73 heating degree days (HDD), Staff recommends that the Company continue to submit comparisons of actual usage to estimated usage to determine whether the model for peak day usage is reasonable or should be revised.

2. The model selected by the Company to estimate a peak day for the Cape Girardeau area tends to overestimate usage. For comparison, a linear regression model shows a reserve margin of ** HC ** compared to that of ** HC ** estimated by the model chosen by the Company.

   a. The time to reduce the capacity would have been for the 1999/2000 ACA period. Staff's review did not show support for an adjustment at that time. The next contract expirations are October and November 2004. Since the Company has stated that the demand studies will be updated at least every three years and the most recent study is the 1999 Demand Study that considered sales loads from January 1996 to May 1999, Staff would expect to see the updated Demand Study prior to review of the 2002/2003 ACA. The Company states that the demand studies for each system are expected to be complete during the summer of 2003. Since the TETCO contracts do not expire until October and November 2004, this delay is reasonable.

   b. Since none of the recent cold days are near the 30-year record cold day of 73 HDD, Staff recommends that the Company continue to submit comparisons of actual usage to estimated usage to determine whether the model for peak day usage is reasonable or should be revised.

   c. In conducting the analysis, the interruptible sales volumes remain in the data. The Company uses an estimate of interruptible usage to remove the interruptible load from the peak day estimate. When interruptible customers are curtailed for extreme weather conditions the data would reflect this. The Company states that when interruptible customers are curtailed, this pulls the linear regression line lower and, therefore, alters the accuracy of the equation throughout the HDD range. Staff notes that this would also affect the accuracy of the polynomial model. If there is a way to remove interruptible loads from the data prior to conducting the analysis, Staff recommends that this be done.

3. The Company selected a "hybrid" model to estimate peak day demand for the Jefferson City/Columbia area and this model tends to overestimate usage for recent cold days. For comparison, a linear regression model shows a reserve margin of ** HC ** compared to that of ** HC ** estimated by the model chosen by the Company.

   a. The Company states that the ** HC ** reserve margin of ** HC ** MMBtu/Day for the hybrid model is within the peak day forecast of error (if the 99% confidence interval is used). However, the Company is already using the coldest day from the past 30 years in the analysis, and the model has been adjusted for growth. Additionally, the Company does not use the confidence interval in the peak day planning for either the Fisk/Lutesville or Cape Girardeau service areas. Staff recommends that the Commission not support AmerenUE's

use of the 99% confidence interval to justify a larger reserve margin. Staff has included a more reasonable reserve in the calculated adjustment.

In the 1999/2000 and 2000/2001 ACA reviews, GR-2000-579 and GR-2001-488, Staff did not accept the hybrid model as a reasonable means of estimating peak day. For the 2001/2002 peak-day demand estimate, the Company still references the 2000 Demand Study for the Jefferson City/Columbia service area that includes the hybrid model. Staff still does not accept the hybrid model as a reasonable way to estimate peak day demand.

Capacity increased slightly this ACA period as one contract expired and was renewed at an increased Maximum Daily Quantity (MDQ) and two other contracts expired and were not renewed. The demand estimate was not updated prior to these contract changes. Since contract changes were made for this ACA period, Staff reevaluated the reserve margin. Staff evaluated the reserve margin under two scenarios – (1) demand from the polynomial model, but reduced by the average overestimation from the above review of recent cold days, and (2) demand from the linear model, but increased by the average underestimation from the above review of recent cold days. To be consistent with the last two ACA reviews, Staff allowed a reserve equal to the standard error of the y- estimate from the models.

**

	HC	

**

Staff used the lower quantity from the polynomial analysis to calculate the cost of the excess reserve. The recommended adjustments from the prior two ACA reviews are shown for comparison.

Cost Summary of Disallowance (Jefferson City/Columbia - PEPL area)	**1999/2000**	**2000/2001**	**2001/2002**
Excess Capacity	$283,822	$309,372	$192,780
Excess Supply	13,236	0	0
Recommended Disallowance	$297,058	$309,372	$192,780
Max # customers	86,304	88,700	89,587
$/customer/yr	$3.44	$3.49	$2.15

** HC
HC
HC
HC
HC
HC
HC
HC
HC **

b. Since none of the recent cold days are near the peak cold day of 78 HDD, Staff recommends that the Company continue to submit comparisons of actual usage to estimated usage to determine whether the model for peak day usage is reasonable or should be revised.

DEFERRED CARRYING COST BALANCE (DCCB)

The DCCB is the monthly cumulative under- or over-recovery of gas costs for each annual ACA period. Carrying costs are applied to the portion of the DCCB that exceeds 5% of the Company's annual gas costs level. If the DCCB exceeds the 5% threshold, carrying costs are either refunded to customers for over-recoveries or recovered from the customers for under-recoveries.

Subsequent to the ACA filing, Ameren updated the DCCB under- and over-recoveries that were included in its ACA filing. These updates changed the filed ACA account balances. Therefore, the Staff proposes adjustments to incorporate the DCCB changes in the ACA filing. These adjustments reduce the NGPL under-recovery by $92, reduce the TETCO firm and interruptible under-recoveries by $407 and $97, respectively, and increase the PEPL firm and interruptible under-recoveries by $4,220 and $576, respectively.

RECOMMENDATIONS

The Staff recommends the Commission issue an order requiring AmerenUE to:

1. Establish the following account balances in its next ACA filing to reflect the (over)/under recovery of ACA and Refund balances to be (refunded)/collected from the ratepayers as of August 31, 2002:

	Balance per AmerenUE Filing	Staff Adjustments	Ending Balances
Natural Gas Pipeline Co. of America: Firm Sales ACA	$ 55,391	$(92)	$ 55,299
Firm Refund	$ 2,881		$ 2,881
Panhandle Eastern Pipe Line Co: Firm Sales ACA	$ 5,882,016	$(188,560)	$ 5,693,456
Interruptible Sales ACA	$ 21,582	$ 576	$ 22,157
Transportation	$ (1,434)		$ (1,434)
Firm Refund	$ (49,953)		$ (49,953)
Interruptible Refund	$ (4,969)		$ (4,969)
Texas Eastern Transmission Corp: Firm Sales	$ 1,275,075	$ (407)	$ 1,274,668
Interruptible Sales	$ 28,349	$ (97)	$ 28,252
Firm Refund	$ (152)		$ (152)
Interruptible Refund	$ (306)		$ (306)

2. To assure sufficient capacity, but not excess capacity, is available to meet firm customer peak day capacity and natural gas supply requirements, Staff recommends that the Commission issue an order requiring AmerenUE to take the following actions:

   a. By October 1, 2003, submit a summary of actual usage, actual HDD, and customer counts for five or more recent cold days for the Fisk/Lutesville, Cape Girardeau and Jefferson City/Columbia service areas. Compare the usage on these actual cold days to the usage estimated by the Company's peak day forecasting model for those days. Include a calculation of the percent over (under) estimation by the forecasting model. List firm and interruptible volumes separately or show how the model treats these. Provide an explanation when the modeled usage does not reasonably agree with the actual usage encountered. If the peak day model is re-evaluated based on these findings, please explain.

b. By October 1, 2003, submit to Staff the new Demand Study for TETCO for the Cape Girardeau service area. The Demand Study should address the concerns raised by Staff in the Reliability Summary section above.

c. By November 3, 2003, submit to Staff the new Demand Study for NGPL for the Fisk/Lutesville service area. The Demand Study should address the concerns raised by Staff in the Reliability Summary section above.

d. By November 3, 2003, submit to Staff the new Demand Study for PEPL for the Jefferson City/Columbia service area. The Demand Study should address the concerns raised by Staff in the Reliability Summary section above.

e. Adjust the PEPL ACA account balance in its next ACA filing by $192,780 to reflect the excess gas costs for peak day reserve.

3. Respond to the recommendations herein within 30 days.