

Exhibit No.:  
Issue: Fuel Costs  
Witness: Wm. Edward Blunk  
Type of Exhibit: Rebuttal Testimony  
Sponsoring Party: KCP&L Greater Missouri  
Operations Company  
Case No.: ER-2009-0090  
Date Testimony Prepared: March 13, 2009

**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO.: ER-2009-0090**

**REBUTTAL TESTIMONY**

**OF**

**WM. EDWARD BLUNK**

**ON BEHALF OF**

**KCP&L GREATER MISSOURI OPERATIONS COMPANY**

**Kansas City, Missouri  
March 2009**

**\*\*\* [REDACTED] \*\*\* Designates "Highly Confidential" Information  
Has Been Removed  
Pursuant To 4 CSR 240-2.135.**

**REBUTTAL TESTIMONY**

**OF**

**WM. EDWARD BLUNK**

**Case No. ER-2009-0090**

1 **Q: Are you the same Wm. Edward Blunk who submitted Direct Testimony in this case**  
2 **on behalf of KCP&L Greater Missouri Operations Company (“GMO” or the**  
3 **“Company”) on or about September 5, 2008?**

4 A: Yes, I am.

5 **Q: What is the purpose of your Rebuttal Testimony?**

6 A: My Rebuttal Testimony responds to the Missouri Public Service Commission Staff’s  
7 (“Staff”) use of a non-seasonal average commodity cost of natural gas and identifies new  
8 fuel additives that will become a part of the Company’s cost of service when Iatan 1  
9 returns to service.

10 **Q: What is your understanding of Staff’s recommendation for natural gas prices in**  
11 **determining the cost of fuel?**

12 A: Staff recommended using a 24-month weighted average of GMO’s actual commodity  
13 cost of natural gas as the natural gas price in the cost of fuel.

14 **Q: Do you have any concerns with Staff’s recommendation to use a historical average**  
15 **price of natural gas?**

16 A: I have a concern with using the same price of natural gas for all months of the test year  
17 while using electricity prices that vary by month. Using a “flat-lined” price of natural gas  
18 with a spot price for electricity that varies by month will cause production cost models to  
19 consistently understate the Company’s cost of purchased power and fuel.

1 **Q: Why will production cost models using the same price of natural gas for all months**  
2 **and electricity prices that vary by month consistently understate the Company's**  
3 **cost of purchased power and fuel?**

4 A: As discussed by Company witness H. Davis Rooney and Staff witness Curt Wells, both  
5 GMO and Staff use chronological simulation models to determine the Company's annual  
6 variable cost of fuel and purchased power. Essentially both the Company's and Staff's  
7 models simulate hour-by-hour for all 8,760 hours of the year the economic dispatch of  
8 the Company's generating units and available market purchases in order to serve load in a  
9 least cost manner. For each hour of the year, the models are evaluating whether it is less  
10 expensive to generate from one of GMO's units or purchase power from the open market.  
11 When the flat-lined price of natural gas is too low the model is more likely to see natural  
12 gas fired generation as the economic choice and when the varying price of electricity is  
13 too low the model is more likely to see purchased power as the economic choice. In both  
14 cases it selects an option that is artificially low.

15 **Q: How will fuel and purchased power expense be distorted by using the same price of**  
16 **natural gas for all months while varying spot prices for electricity prices?**

17 A: If the production cost model is using the same natural gas for all months but a varying  
18 price for the electricity market, it will find market conditions that would not exist  
19 otherwise. For example, market prices for electricity and natural gas peaked in July last  
20 year. The flat-lined approach of using the same natural gas price for all months of the  
21 year would have artificially lowered the price of natural gas for July. The production cost  
22 model would then be more likely to dispatch a natural gas unit when true market  
23 conditions may have dictated purchasing power.

1 **Q: Does the use of a flat-lined natural gas price for the year while varying spot power**  
2 **prices always result in overstating natural gas burns?**

3 A: No. Sometimes it can have just the opposite effect by overstating power purchases and  
4 understating natural gas burns.

5 **Q: Will those overstatements and understatements of power purchases and natural gas**  
6 **burns offset?**

7 A: No. In fact, they will consistently understate the cost of service. As I mentioned earlier,  
8 the production cost models simulate every hour of the year and evaluate whether is it less  
9 expensive to generate from one of GMO's units or purchase power from the open market.  
10 The model is focused on least cost and in the months when flat-lined price of natural gas  
11 is artificially too low it is more likely to be viewed as lower cost than purchasing power.  
12 Both purchased power expense and fuel expense for that month will be understated.  
13 Purchased power expense will be understated because the model is less likely to have  
14 seen it as the economic choice. Fuel expense will be understated because the "flat-lined"  
15 price of natural gas will be lower than the monthly price.

16 On the other hand, in the months when "flat-lined" price of natural gas is  
17 artificially too high it is less likely to be viewed as the lowest cost option. Because of the  
18 positive correlation between power and natural gas prices we can assume that the months  
19 when the flat-line price of natural gas are above varying market prices are the same  
20 months when varying electricity prices are lower. Consequently the quantity of  
21 purchased power may be overstated for those months when power prices are at lows.  
22 Fuel expense for those months will be understated because the too high flat-lined natural

1 gas will be less likely to be viewed as the least cost option. The net effect is an  
2 understatement of the cost of service.

3 **Q: Will using a flat-line natural gas price while varying the market price for electricity**  
4 **understate the cost of service even if the two are not correlated?**

5 A: We can be reasonably certain that using a flat-line natural gas price while varying spot  
6 power prices will never overstate the Company's cost of service and will almost always  
7 understate the Company's cost of service.

8 **Q: How much does the use of a flat-line natural gas price for the year while varying**  
9 **spot power prices understate the Company's cost of service?**

10 A: The exact amount of understatement would vary for every analysis. To illustrate this bias  
11 we have remodeled the generation fuel and non-firm purchased power expense in the  
12 Company's Direct Filing and the September update provided to Staff. Using a flat-line  
13 weighted average natural gas price based on the same natural gas prices and volumes  
14 reflected in the Direct Filing would have understated cost of service by about \*\*  
15 **██████████**\*\*  
16 **██████████**\*\*  
17 Using that flat-line price would understate the generation fuel and non-firm  
18 purchased power expense in the September update by about \*\*  
19 **██████████**\*\*.

17 **Q: Will the new air quality control system ("AQCS") equipment at Iatan 1, Sibley 3,**  
18 **and the Jeffrey Energy Center require the use of new additives?**

19 A: Yes. The AQCS equipment being added to those units will require the use of certain  
20 additives that were not previously required, such as, ammonia, urea, limestone, and  
21 powder activated carbon.

1 **Q: Are those additives included in Staff's filing?**

2 A: No. As I understand it, Staff's filing does not take into account the use of these additives.

3 This incremental cost will need to be considered during the true-up process in this rate  
4 proceeding.

5 **Q: Does this conclude your testimony?**

6 A: Yes, it does.

