Exhibit No.:
Issue: Fuel Cost
Witness: Wm. Edward Blunk
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Kansas City Power & Light Company
Case No.: ER-2009-0089
Date Testimony Prepared: March 11, 2009

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2009-0089

REBUTTAL TESTIMONY

OF

WM. EDWARD BLUNK

ON BEHALF OF

KANSAS CITY POWER & LIGHT 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-2009-0089

Q: Are you the same Wm. Edward Blunk who submitted Direct Testimony in this case on behalf of Kansas City Power & Light Company ("KCP&L") on or about September 5, 2008?

A: Yes, I am.

Q: What is the purpose of your Rebuttal Testimony?

A: My Rebuttal Testimony responds to the Staff's use of a non-seasonal average commodity cost of natural gas, identifies new fuel additives that will become a part of the Company's cost of service when Iatan 1 returns to service, and addresses Staff's computation of cost of fuel oil used at the Wolf Creek Nuclear Generating Station.

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

A: Staff recommended using an 18-month weighted average of KCP&L's actual commodity cost of natural gas as the natural gas price in the cost of fuel. I would note that Staff's testimony says they used an 18-month weighted average. However, Staff's work papers reflect a 24-month average. My arguments are relevant to the use of either.

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

A: I have a concern with using the same price of natural gas for all months of the test year while using electricity prices that vary by month. Using a "flat-lined" price of natural gas

with a spot price for electricity that varies by month will cause production cost models to consistently understate the Company's cost of purchased power and fuel.

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

A: As discussed by Company witness Burton Crawford and Staff witness Curt Wells, both KCP&L and Staff use chronological simulation models to determine the Company's annual variable cost of fuel and purchased power. Essentially both the Company's and Staff's models simulate hour-by-hour for all 8,760 hours of the year the economic dispatch of the Company's generating units and available market purchases in order to serve load in a least cost manner. For each hour of the year, the models are evaluating whether it is less expensive to generate from one of KCP&L's units or purchase power from the open market. When the flat-lined price of natural gas is too low the model is more likely to see natural gas fired generation as the economic choice and when the varying price of electricity is too low the model is more likely to see purchased power as the economic choice. In both cases, the model would select an option based on an artificially low price.

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

A: If the production cost model is using the same natural gas for all months but a varying price for the electricity market, it will find market conditions that would not exist otherwise. For example, market prices for electricity and natural gas peaked in July last year. The flat-lined approach of using the same natural gas price for all months of the

year would have artificially lowered the price of natural gas for July. The production cost model would then be more likely to dispatch a natural gas unit when true market conditions may have dictated purchasing power.

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

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

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

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

On the other hand, in the months when "flat-lined" price of natural gas is artificially too high it is less likely to be viewed as the lowest cost option. Because of the positive correlation between power and natural gas prices we can assume that the months when the flat-line price of natural gas are above varying market prices are the same months when varying electricity prices are lower. Consequently the quantity of purchased power

may be overstated for those months when power prices are at lows. Fuel expense for those months will be understated because the too high flat-lined natural gas will be less likely to be viewed as the least cost option. The net effect is an understatement of the cost of service.

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

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

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

A: The exact amount of understatement would vary for every analysis. To illustrate this bias we have remodeled the generation fuel and non-firm purchased power expense shown on Schedule BLC-4 in the Company's Direct Filing in this case using a flat-line, weighted average natural gas price based on the same natural gas prices and volumes reflected in the analysis behind Schedule BLC-4. Using that flat-line price would reduce the generation fuel and non-firm purchased power expense shown on Schedule BLC-4 by about **[redacted]**.

Q: Will Iatan 1 require any new fuel additives when it returns to service?

A: Yes. One of the purposes of Iatan 1's outage is to add new environmental control equipment. That new environmental control equipment requires certain additives that were not previously required at Iatan 1. Some of those additives are already being used

in some form at other plants in the Company's fleet. Iatan 1 will be KCP&L's first unit to use one of the additives.

Q: What new additives will Iatan 1 require after it returns to service?

A: Ammonia, limestone, and powder activated carbon.

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

A: No. As I understand it, Staff's filing is based on information that was known and part of operations as of September 30, 2008. These new additives will not be part of operations at Iatan 1 until it returns to service with the new environmental control equipment.

Q: What is your understanding of Staff's recommendation for the computation of cost of fuel oil used at Wolf Creek?

A: Staff used the ratio of fuel oil expense to the sum of nuclear fuel and fuel oil expense in September 2008 to arrive at the total fuel price for Wolf Creek. That "total fuel" price was used in their cost of service model.

Q: Do you have any concerns with Staff's use of September 2008 ratio of fuel oil expense to total fuel expense to arrive at the annual fuel oil use?

A: The approach used by the Staff understates the quantity of fuel oil consumed by the station. The majority of fuel oil used at the station is consumed during outages and start-up of the plant. During September 2008, the plant did not experience an outage therefore fuel oil use was unusually low compared to the annual average.

Q: What would be a more appropriate method for computing the cost of fuel oil consumed at Wolf Creek?

A: We would recommend using a three year average of actual fuel oil consumption.

Q: Why do you recommend a three year average of actual fuel oil consumption?

A: During three years we would expect Wolf Creek to have two refueling outages. It is during an outage and startup following an outage that Wolf Creek consumes most of its fuel oil.

Q: How would the cost of fuel oil be computed?

A: The Company is in agreement with Staff on how to price the fuel oil. That approach is to use the average per unit value of Wolf Creek's fuel oil inventory at the end of the period or true-up.

Q: Does this conclude your testimony?

A: Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Kansas City Power & Light Company to Modify Its Tariff to Continue the Implementation of Its Regulatory Plan	)))	Case No. ER-2009-0089

AFFIDAVIT OF WILLIAM EDWARD BLUNK

STATE OF MISSOURI)
) **ss**
COUNTY OF JACKSON)

William Edward Blunk, appearing before me, affirms and states:

1. My name is William Edward Blunk. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Manager, Fuel Planning.

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of Kansas City Power & Light Company consisting of Six (6) pages and ~~Schedule(s) ____ through ____~~, all of which having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

William Edward Blunk

Subscribed and affirmed before me this 16th day of March 2009.

Nicole A. Wehry
Notary Public

My commission expires: Feb. 4, 2011

" NOTARY SEAL "
Nicole A. Wehry, Notary Public
Jackson County, State of Missouri
My Commission Expires 2/4/2011
Commission Number 07391200