Exhibit No.:
Issue: Fuel, Off-System Sales
Witness: Burton L. Crawford
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Kansas City Power & Light Company
Case No.: ER-2012-0174
Date Testimony Prepared: September 5, 2012

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2012-0174

REBUTTAL TESTIMONY

OF

BURTON L. CRAWFORD

ON BEHALF OF

KANSAS CITY POWER & LIGHT COMPANY

Kansas City, Missouri
September 2012

REBUTTAL TESTIMONY

OF

BURTON L. CRAWFORD

Case No. ER-2012-0174

Q: Please state your name and business address.

A: My name is Burton L. Crawford. My business address is 1200 Main, Kansas City, Missouri 64105.

Q: Are you the same Burton L. Crawford who pre-filed Direct Testimony in this matter?

A: Yes, I am.

Q: What is the purpose of your Rebuttal Testimony?

A: The purpose of my testimony is to rebut fuel model and off-system sales related issues in the Missouri Public Service Commission ("MPSC" or "Commission") Staff's ("Staff") Revenue Requirement/Cost of Service report ("Staff Report"); issues related to off-system sales adjustments in the Direct Testimony of Greg R. Meyer on behalf of Missouri Industrial Energy Consumers ("MIEC") and Midwest Energy Consumers Group ("MECG"); off-system sales model derate issues presented in the Direct Testimony of Nicholas L. Phillips on behalf of MIEC and MECG; and resource planning related issues raised in the Direct Testimony of Bruce E. Biewald on behalf of the Sierra Club.

A. <u>Fuel and Purchased Power</u>

Q: Do you have any issues with the Staff's fuel and purchased power modeling efforts?

A: Yes. There are at least four issues that should be addressed at true-up. These are related to the treatment of firm contract sales, the treatment of new wind resources, the treatment of non-asset based wholesale transactions and the treatment of the equivalent forced outage rate ("EFOR") at Hawthorn Unit 5.

Q: Do you disagree with the Staff's computation of firm off-system sales revenues?

A: Yes. As Staff's direct case is structured, they have essentially double counted wholesale sales to the Kansas Municipal Energy Agency ("KMEA").

Kansas City Power & Light Company ("KCP&L" or the "Company") had a contract for load following energy service with KMEA that expired May 31, 2012. The contract was extended to November 30, 2012. As of December 1, 2012, KMEA will participate in Southwest Power Pool's ("SPP") Energy Imbalance Services ("EIS") market and will no longer require this service to be provided by KCP&L. Since this contract will no longer be in effect at the time new rates go into effect in this case, the Company's estimation of the non-firm off-system sales margin was computed assuming that this load would not be served by KCP&L. The energy that formerly went to serve KMEA load was allowed to be sold in the off-system sales market.

Since Staff accepted the Company's estimate of non-firm off-system sales margin that includes energy that would have formerly been sold to KMEA and explicitly includes the KMEA sales in their cost of service, they have effectively double counted these wholesale sales. Staff should remove the KMEA firm contract sales from their cost of service model.

However, if the Commission determines that it is appropriate to include this load in the firm off-system sales, the non-firm off-system sales margin would need to be reduced to recognize the reduction in energy available for sale in the non-firm market.

Also, the basis of the firm off-system sales energy that Staff included in its fuel modeling and the related revenues in its Cost of Service Model is not clear to the Company. KCP&L will attempt to resolve this uncertainty with the Staff prior to true-up.

Q: Do you disagree with the Staff's Cost of Service modeling regarding the Company's 2012 wind additions?

A: Yes. Staff did not include the generation or the cost of the new wind resources under purchased power agreements (Cimarron and Spearville 3) that began delivering energy to KCP&L earlier this year. These resources have been included in the Company's cost of service modeling for retail and firm wholesale obligations and in the NorthBridge estimate of non-firm off-system sales margins. Staff has indicated that these resources will be included in its true-up case.

Q: Do you take issue with the Staff's Cost of Service modeling regarding the treatment of non-asset based wholesale transactions?

A: Yes. The Staff Report at page 90 proposes to include the margins from non-asset based wholesale transactions in the Company's retail cost of service. Such transactions should not be included.

Q: What are non-asset based wholesale transactions?

A: Non-asset based wholesale transactions are wholesale market purchases and sales that do not involve the utility's generation or transmission assets and are outside the SPP footprint. For example, purchases and offsetting sales of energy within the Midwest Independent Transmission System Operator, Inc. ("MISO") or PJM Interconnection LLC ("PJM") systems would be considered a non-asset based transaction.

Q: Why does the Company propose to exclude such transactions from its retail cost of service?

A: This activity does not involve KCP&L's regulated generation and transmission assets and is not directly related to the provision of retail electric service in Missouri. As such, the risks and rewards of such activity should not be included in the regulated business.

Q: How does the Kansas Corporation Commission ("KCC") handle such non-asset based wholesale activity?

A: The KCC explicitly excludes these transactions from the regulated cost of service.

Q: Does KCP&L propose that costs associated with non-asset based transactions should also not be included in the cost to serve its retail customers?

A: Yes. The true-up in this case will not include any such costs.

Q: Please describe your concern with Staff's treatment of Hawthorn Unit 5.

A: According to Staff Report at pages 127-135, Staff has adjusted the historical EFOR for outages and derates related to the Hawthorn 5 Selective Catalytic Reduction ("SCR") system and the Hawthorn 5 step-up transformer. These adjustments are not appropriate.

Q: Why are Staff's Hawthorn 5 adjustments not appropriate?

A: Staff has selectively removed events from the seven-year history of Hawthorn 5 which results in a modeled EFOR that does not represent KCP&L's actual experience with this plant. Consequently, Staff's analysis results in an artificially high level of availability for the plant, inconsistent with what has occurred over the past seven years, which may lead to an understatement of costs to serve retail customers.

Actual plant EFOR can vary greatly from year to year. As such, it is reasonable to use a long-term average of plant performance when normalizing fuel and purchased power expenses. While one could claim that any single event is unusual in nature and should be eliminated from the averaging process, the nature of plant performance is such that events do occur that may not happen ever again in the life of the plant. In other words, "normalizing out" one-time events or focusing on the performance of a particular piece of equipment can easily result in understating expected performance since abnormal events can and will occur.

While incidents do occur that can take a unit off-line for an extended period of time, there are also periods of exceptional, sustained performance where a unit remains on-line for an extended period of time. Hawthorn 5 is an excellent example. While Staff has removed events that have derated or taken the unit out of service, it has not normalized out the fact that Hawthorn 5 had an all-time record run during this seven year period. During 2009-2010, Hawthorn 5 experienced a record-breaking 186-day continuous run. This was the plant's longest run since at least 1990. Staff has not normalized out this unusual event from Hawthorn 5's seven-year history.

The bottom line is that coal plant availability can vary greatly year-to-year based on any number of events. While there may be a rare and unusual event that supports an adjustment, difficulties with an SCR and a transformer are not such events, and do not justify Staff's adjustment.

B. <u>Off-System Sales Adjustments</u>

Q: Please briefly describe the off-system sales adjustment issues you will be addressing.

A: I will address the off-system sales adjustments proposed in the Direct Testimonies of Mr. Greg R. Meyer and Mr. Nicholas L. Phillips, representing MIEC and MECG. These adjustments include SPP line loss charges, SPP Revenue Neutrality Uplift ("RNU"), Purchases for Resale, plant derate assumptions, and the Iatan 2 EFOR.

Q: Has Mr. Meyer failed to recognize prudently incurred costs related to KCP&L's off-system sales transactions?

A: Yes. Mr. Meyer proposes to disallow costs associated with the SPP Line Loss Charges and Purchases for Resale. Failure to recognize these costs results in understating KCP&L's cost to serve its retail customers.

1. <u>SPP Line Loss Charges</u>

Q: Please describe the SPP Line Loss Charges that Mr. Meyer proposes to disallow.

A: As described in my Direct Testimony, SPP Line Loss Charges are assessed by SPP on off-system sales made by KCP&L, as well as other SPP transmission customers. SPP uses the revenue from these Line Loss Charges to compensate SPP transmission owners for the loss of energy that occurs when transmitting energy through the transmission network.

Q: Are these SPP Line Loss Charges to KCP&L a result of KCP&L's membership in the SPP regional transmission organization ("RTO")?

A: Yes. These line loss charges are assessed to KCP&L and other SPP transmission customers.

Q: Does KCP&L have any control over incurring these costs?

A: No. To the extent that KCP&L makes off-system sales subject to these charges, these Line Loss Charges will be assessed by SPP per the Federal Energy Regulatory Commission ("FERC")-approved SPP regional transmission tariff.

Q: Is it appropriate to include SPP Line Loss Charges in the costs to serve KCP&L's retail customers?

A: Yes. KCP&L's retail customers receive the net benefits of KCP&L's off-system sales and should therefore incur all costs associated with making these sales. The Staff Report at page 90 agrees with KCP&L's proposal, which is consistent with the Commission's decision to allow such costs in the Company's last rate case, as discussed in the Report and Order at page 140, Case No. ER-2010-0355.

Q: What is the basis for the amount of SPP Line Loss Charges KCP&L proposed in this case?

A: KCP&L included SPP Line Loss Charges based on the actual net SPP line loss expense incurred by KCP&L for the 12-month period ending November 2011. KCP&L plans to include the actual net SPP Line Loss Charges for the prior 12 months as of August 31, 2012, the true-up date in this case, as an expense in determining the off-system sales margin.

Q: Why does Mr. Meyer propose to disallow SPP Line Loss Charges incurred by KCP&L?

A: Mr. Meyer proposes to disallow the SPP Line Loss Charges because the model used by Mr. Schnitzer to estimate KCP&L's off-system sales margins does not specifically identify sales made outside the SPP system. In his Direct Testimony at page 20, Mr. Meyer concludes that KCP&L "fails to recognize the higher sales price for those sales."

Q: Do you agree with this logic?

A: No. If KCP&L failed to recognize any actual higher sales prices from sales made outside the SPP system, it would have been appropriate to exclude the higher cost associated with making these sales. However, KCP&L recognizes these sales made outside the SPP system and KCP&L's retail customers directly benefit from these sales. The off-system sales tracker that KCP&L has had in place for several years fully reflects the benefit of these sales and, therefore, KCP&L's retail customers should incur the costs associated with making these sales.

Q: Mr. Meyer's premise appears to be that sales made outside the SPP footprint receive a premium above those made in the SPP footprint correct. Is this premise correct?

A: No. For at least two reasons, sales outside of SPP are not necessarily made at a premium over sales made within SPP. First, in order to facilitate off-system sales, KCP&L has secured long-term firm transmission paths that exit SPP. These paths come at a fixed price. If the fixed cost of these paths was included in the price of a sale, KCP&L would risk losing sales to lower offers. In other words, the cost of transmission on these paths is a sunk cost and should not typically be considered in pricing a potential off-system sale. Second, there are times when KCP&L has more energy to sell than can be sold within the SPP footprint and in order to continue making economic sales, it must look outside the SPP footprint. These sales are generally made at lower prices than sales made in the SPP footprint. So in actual practice, sales made outside the SPP footprint are generally at a lower price than sales made within the SPP footprint. Therefore, if any adjustments were to be made to the off-system sales estimated by KCP&L witness Mr. Schnitzer, it should be to decrease margins to account for the lower average price of sales made outside the SPP footprint.

Q: Do you have support for your position that sales made outside the SPP footprint are generally made at lower prices to sales made inside the SPP footprint?

A: Yes. The KCP&L FERC Form 1 provides off-system sales information by counter party. An analysis of KCP&L's 2011 FERC Form 1 shows that the average sales price to entities outside the SPP footprint is more than $5.00/MWh below the price of sales made to entities within the SPP footprint.

2. <u>SPP Revenue Neutrality Uplift</u>

Q: Please explain Mr. Meyer's proposed treatment of the SPP RNU charges.

A: Mr. Meyer at page 26 of his Direct Testimony proposes to treat these charges as a fuel expense.

Q: Are RNU charges a fuel expense?

A: No. They are the net charges from SPP related to over-collection and under-collection of revenue related to wholesale sales and purchases through the SPP energy imbalance market.

Q: What is KCP&L's proposal for RNU treatment?

A: KCP&L proposes to include these as part of the off-system sales margin calculation.

Q: Why is KCP&L's proposed treatment appropriate?

A: KCP&L incurs these charges and credits due to its participation in the SPP EIS market. The charges and credits are recorded as wholesale purchases and sales. The Staff Report at page 90 agrees with KCP&L's proposal, which is consistent with the Commission's decision in the last rate case, as noted in the Report and Order at pages 140-141, Case No. ER-2010-0355.

3. **<u>Purchases for Resale</u>**

Q. Why does Mr. Meyer propose that Purchase for Resale be disallowed from KCP&L's cost of service?

A: Essentially, Mr. Meyer proposes to disallow Purchase for Resale on the grounds that benefits associated with these transactions are not reflected in KCP&L's cost of service,

Q: Are the benefits associated with these transactions reflected in the actual costs to KCP&L's retail customers and if so, how?

A: Yes. The benefits described in Mr. Meyer's Direct Testimony at pages 22-23 currently flow back to retail customers through the off-system sales margin tracking process and will continue to do so under the Company's proposal in this case. KCP&L's Post Analysis program (the program used to calculate KCP&L's actual off-system margins) determines the actual benefits from these transactions, and as such the actual off-system sales margins reflect this benefit. These are known as Block Price Adjustments.

Q: Are these Block Price Adjustments included in the Company's Direct Case?

A: No. While these adjustments flow through the off-system sales margin tracking process, they were not in the Company's cost of service. However, they will be included in the Company's cost of service in the true-up case.

Q: Has Mr. Meyer offered other reasons for disallowing Purchases for Resale from KCP&L's cost of service?

A: Yes. He states at page 24 of his Direct Testimony that derates and forced outages can result in purchase for resale transactions, and asserts that since KCP&L models generation derates and forced outages in its production cost modeling, these costs may already be accounted for.

Q: Have these Purchases for Resale costs related to derates and forced outages been included in KCP&L's production cost modeling?

A: No. When a generation derate or forced outage is simulated in KCP&L's production cost modeling, the energy that would have been available to make an off-system sale is no longer available and no sale is made. What happens in actual practice is that KCP&L may have an off-system sale in place at the time of a derate or forced outage which results in a purchase needed to fill the sale. It is exactly this difference between the production cost modeling and actual operating practice that KCP&L is accounting for with the Purchases for Resale adjustment. Without this adjustment, purchased power costs would be understated since the production cost models used by both KCP&L and Staff cannot reflect these transactions.

Q: What is the Staff's position in regard to purchases for resale?

A: Staff agrees that these are legitimate costs that should be included in the Company's cost of service, and has included them in its cost of service in this case, as noted in the Staff Report at page 90.

4. <u>Iatan 2 Equivalent Forced Outage Rate</u>

Q: Do you have any comment concerning Mr. Nicholas Phillips recommendation concerning Iatan 2 EFOR assumptions?

A: Yes. KCP&L agrees that the Iatan 2 EFOR needs to be reduced and will do so in its true-up filing in this case. KCP&L will use an average of the monthly EFOR's for Iatan 2 starting November 2010 through August 2012.

C. **<u>Off-System Sales Model Derates</u>**

Q: Please briefly describe Mr. Nicholas Phillips' concern with KCP&L's treatment of coal plant derates used in the NorthBridge off-system sales analysis?

A: Mr. Phillips in his Direct Testimony at page 15 questioned the Company's use of what he termed "planned generator deratings." As such, he has not included the KCP&L assumptions in his off-system sales analysis.

Q: What do these derates represent?

A: In addition to lost generation due to forced outages and forced derates which are included in the EFOR values, KCP&L also experiences lost generation due to 1) planned outages (other than those scheduled months or years in advance which KCP&L includes in its normalized maintenance schedules), 2) transmission congestion, and 3) inefficiencies in the wholesale market. The derates included in the NorthBridge off-system sales model represent this lost generation.

Q: How has the Company determined these derates?

A: On a routine basis, the Company reports coal plant availability information to the North American Electric Reliability Corporation ("NERC"). This is done through the Generating Availability Data System ("GADS"). The Company's reported data is used to calculate the derates due to events that are not part of the regular maintenance schedule or included in the EFOR.

GADS events are categorized into 15 event codes. These codes describe the nature of the event that is impacting the availability of the unit. These codes cover events that range from a complete unit forced outage or scheduled overnight maintenance, to fully planned maintenance outages. The event "states" shown in Schedule BLC-13 are from the NERC GADS Data Reporting Instructions manual.

The Company simulates lost capacity due to forced and planned events using three assumptions that must work together. The first is the EFOR assumption that accounts for unit states D1, D2, D3, U1, U2, U3 and SF. The second is the planned maintenance schedule which accounts for states PO and PE. The third assumption covers the remaining states, D4, DM, PD, DP, MO and ME. This third set is what KCP&L includes as part of its derate assumptions.

Q: Please describe the transmission congestion component of the KCP&L derived derates.

A: As part of the current SPP EIS market, SPP posts Locational Imbalance Prices ("LIP") for each generator every 5 minutes. The LIP is the price signal from SPP to the owner of generation. SPP pays the generation owner for any energy generated above their scheduled output at the LIP.

When a transmission constraint occurs, generators that are negatively impacting the constraint will see their LIP reduced. The LIP may even go negative. This is the market signal from SPP to the generators negatively impacting the transmission constraint to reduce their generation. Based on historic LIP prices, the Company allocates a portion of the derate energy estimate to individual plants.

Q: Please describe the wholesale market inefficiency component of the KCP&L determined derates?

A: In brief, due to the lack of a centralized day-ahead and real-time spot market, most wholesale energy market transactions in the current SPP EIS market are done on a bilateral basis. Production cost models such as MIDAS™ or RealTime do not directly account for inefficiencies inherent in these markets. In order to simulate market inefficiencies, KCP&L includes derates in its production cost modeling.

Q: Are these the same inefficiencies as described in the Direct Testimony of Mr. Nicholas Phillips at pages 10-12?

A: I believe so.

Q: How did Mr. Phillips account for these inefficiencies in his RealTime simulations of the KCP&L system?

A: Mr. Phillips applied a hurdle rate to account for these inefficiencies.

Q: Is the application of a hurdle rate a reasonable method to account for such inefficiencies?

A: Yes. It has the effect of reducing generation levels to account for the differences between the perfect dispatch that occurs in modeling and actual operations.

Q: Did KCP&L apply a hurdle rate in its fuel cost modeling in this case?

A: No. Instead of a hurdle rate, KCP&L represented inefficient market operations through the application of derates. It's simply another modeling technique to adjust a production cost model to reflect differences between the perfect dispatch that occurs in modeling and actual operations.

Q: Were the derates KCP&L supplied to NorthBridge for use in its off-system sales analysis applied in KCP&L's MIDAS™ model when determining the normalized fuel and purchased power costs for native load?

A: Yes, they were.

D. **<u>Resource Planning – La Cygne and Montrose</u>**

Q: Do you disagree with Sierra Club witness Mr. Bruce E. Biewald's key conclusions?

A: Yes. Mr. Biewald in his Direct Testimony at page 3 concludes that "there has been no formal transparent process in Missouri in which KCP&L has demonstrated, or even attempted to demonstrate, that it is conducting prudent planning with regard to its large retrofit investment in La Cygne and Montrose." This is incorrect. There is a formal and transparent integrated resource planning process in Missouri where KCP&L has demonstrated it is conducting prudent planning for the retrofit investments currently underway at La Cygne and has evaluated potential retrofits at Montrose. The process is underway in KCP&L's current Integrated Resource Plan ("IRP") case before the MPSC.

Q: Do you take issue with Mr. Biewald's recommendations to the Commission?

A: Yes. Mr. Biewald recommends at page 4 of his Direct Testimony that the MPSC "insist" on a prudent and proper planning process for La Cygne and Montrose projects. There is no need in the context of this rate case to insist on such a process. However, this process has already been well established by the Commission through its currently effective and comprehensive Electric Utility Resource Planning rules found at 4 CSR 240-22.

Mr. Biewald also recommends that the MPSC "make it clear" to KCP&L that investments in La Cygne and Montrose must be justified on economic terms or be subject to disallowance. This is unnecessary since KCP&L is fully aware that any investments that it may make are reviewed by the Commission and subject to disallowance should the Commission find such investments to be imprudent.

Q: Does that conclude your testimony?

A: Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service	)))	Case No. ER-2012-0174

AFFIDAVIT OF BURTON L. CRAWFORD

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

Burton L. Crawford, being first duly sworn on his oath, states:

1. My name is Burton L. Crawford. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Director, Energy Resource Management.

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 fifteen (15) pages, 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 swear and 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.

Burton L. Crawford

Subscribed and sworn before me this 5th day of September, 2012.

Nicole A. Wehry
Notary Public

My commission expires: Feb. 4, 2015

NICOLE A. WEHRY
Notary Public - Notary Seal
State of Missouri
Commissioned for Jackson County
My Commission Expires: February 04, 2015
Commission Number: 11391200

NERC GADS Unit States Diagram