Exhibit No.:
Issue: Off-System Sales Margins
Witness: Burton L. Crawford
Type of Exhibit: True-Up Direct Testimony
Sponsoring Party: Kansas City Power & Light Company
Case No.: ER-2007-0291
Date Testimony Prepared: November 2, 2007

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2007-0291

TRUE-UP DIRECT TESTIMONY

OF

BURTON L. CRAWFORD

ON BEHALF OF

KANSAS CITY POWER & LIGHT COMPANY

Kansas City, Missouri
November 2007

"[redacted]**" Designates "Highly Confidential" Information Has Been Removed.**
Certain Schedules Attached To This Testimony Designated "HC" Have Been Removed Pursuant to 4 CSR 240-2.135.

TRUE-UP DIRECT TESTIMONY

OF

BURTON L. CRAWFORD

Case No. ER-2007-0291

Q: Are you the same Burton L. Crawford who submitted Direct Testimony in this proceeding?

A: Yes, I am.

Q: What is the purpose of your True-Up Direct Testimony?

A: The purpose of my testimony is to: (1) Update actual off-system sales margins through September 30, 2007; (2) Explain why margins for the year 2007 will not likely reach the 25th percentile level projected one year ago; (3) Explain how actual off-system sales margins are calculated; and (4) Describe the adjustment in methodology to calculate off-system sales margins caused by the implementation of the Southwest Power Pool ("SPP") Energy Imbalance Service ("EIS") Market.

Q: How does the actual off-system sales margin through September compare to the off-system sales margin representing the 25th percentile used by the Commission in the Company's last rate case?

A: The off-system sales margin included in the Company's revenue requirement in the last rate case at the 25th percentile was **[redacted]**. Given nine months of actual data and current market conditions, KCPL projects year-end actual margins to be about **[redacted]**.

Q: Please explain why the projected actual 2007 off-system sales margin including nine months of actual data through September is lower than the projected margin included in last year's rate case at the 25th percentile level.

A: There are two primary drivers for lower off-system sales margins: (1) reduced wholesale energy market prices and (2) lower MWh sales volumes.

Since there is no monthly margin data associated with the 25th percentile, I will describe the impacts that wholesale energy market prices and sales volumes have had on KCPL's 2007 budgeted off-system sales margins as a proxy for the impact on the projected 2007 margins included in last year's rate case.

Through September, actual wholesale sales prices have averaged **[redacted]**/MWh while the projected average wholesale sales price was **[redacted]**/MWh. This difference in average sales prices resulted in a **[redacted]** reduction in margins. The average sales price reduction is driven in large part by the significant reduction in natural gas prices since the projection was prepared last year. Since gas-fired generation resources set the marginal price in SPP during the majority of hours in the year, natural gas prices have a significant impact on wholesale electricity prices. Schedule BLC-1 compares the projected price of natural gas at the time the 2007 budget was prepared to the actual price of natural gas through September and the current projected price from October through December 2007. Projected prices through the end of the year remain well below what was estimated last year for 2007.

The volume of off-system sales has also been lower than projected for 2007. Through September, off-system sales from KCPL's generation are about **[redacted]** MWh lower than budgeted. Based on average actual margins, this reduced the total actual margins by

approximately **[redacted]**. A portion of the volumes available for sale was reduced due to increases in native load requirements above what was budgeted. Increases in native load reduce the energy available for off-system sales. Through September, KCPL's net system input was approximately 180,000 MWh above budget. Additional reduction in off-system sales volumes was due to reduced generation. Through September, KCPL's coal generation was approximately 890,000 MWh below budget. This was primarily due to increased forced outages during the period.

Q: How does KCPL's actual off-system margin through September compare to KCPL's budget projection through September?

A: The budgeted off-system sales margins through September are **[redacted]** compared to an actual margin of **[redacted]**. As described above, margins are about **[redacted]** lower due to reduced wholesale energy market prices, and **[redacted]** lower due to reduced MWh volumes.

Q: How does KCPL calculate actual off-system sales margins?

A: Off-system sales margins are determined by subtracting from off-system sales revenue the fuel and purchased power costs that supported the sales.

Q: How does KCPL determine fuel and purchased power costs that support off-system sales?

A: KCPL uses a computer program called PACE (Post Analysis Cost Evaluation) to determine the sources of energy used to support the off-system sales. Data on actual generation availability (by generating plant) and actual purchased power transactions are input to the model as potential sources of energy available to support off-system sales. Data on actual wholesale sales transactions are also entered.

The PACE program performs an allocation process, allocating available resources to the actual off-system sales. The highest cost available sources of energy (either generation or purchased power) are assigned to support off-system sales. By default, the lowest cost available sources of energy are assigned to serve KCPL's native load requirements. This allocation process is performed for each historical hour.

Once the allocation process is complete, the results indicate which generating plants and purchased power transactions were used to supply off-system sales in any given historical hour. Average fuel costs by plant are matched with the amount of energy produced by each plant (as determined by PACE) to determine fuel cost to support off-system sales. Fuel cost is combined with the cost of purchased power (as determined by PACE) to determine total cost to supply off-system sales.

Q: Is this methodology for calculating actual off-system sales margins consistent with the methodology used by Michael Schnitzer to determine the 25th percentile of off-system sales margins in the current case?

A: Yes, for sales made from KCPL's generating plants.

Q: How has the SPP EIS market impacted the calculation of KCPL's off-system sales margins?

A: The extremely large volume of balancing transactions caused by the implementation of the SPP EIS market beginning in February, 2007 were allocated in large part to wholesale sales by the PACE computer model for purposes of calculating margins. This caused both revenue (sales) and purchases to be overstated. In addition, since both revenue and purchases related to balancing services are not always related to off-system sales,

including them as off-system transactions caused margins calculated as a percentage of cost or revenue to appear unusually low.

Q: Please describe the effect of the SPP EIS market on off-system sales.

A: The SPP EIS market is based on the concept of "imbalances". Any difference between actual generation output and scheduled generation output is considered an imbalance that is financially settled through the SPP EIS market. For example, if a generator is scheduled to produce 100 MWhs in a given hour, but actually produces 101 MWhs, SPP will pay the generator for the additional 1 MWh of generation based on the market price of energy for that hour and geographic location. This creates a 1 MWh sale to SPP. If in this example the generator only produced 99 MWhs for the hour, SPP would charge the generator for the 1 MWh not produced. This creates a 1 MWh purchase from SPP. Prior to the SPP EIS market operation, this over- and under-generation did not create a wholesale transaction.

The number of non-SPP RTO EIS wholesale market transactions from January through September 2007 was 6,885. These are the result of KCPL selling excess generation to third parties other than the SPP EIS market. During the same period in 2006, there were 7,186 such wholesale market transactions.

From February 2007 through September 2007, KCPL experienced an additional 61,494 transactions with the SPP EIS market alone. These significantly increased transactions were treated as potential off-system transactions by the PACE model. Each of these SPP EIS market transactions, both purchases and sales, are now included in the PACE allocation process.

Q: What are the implications of this substantial increase in wholesale transactions on KCPL's off-system sales margin calculations?

A: Based on the historical process KCPL has used to determine off-system sales margins, the SPP EIS market was effectively shifting purchased power expenses to the off-system sales margins.

Q: Please provide an example of how the introduction of SPP EIS market transactions resulted in shifting purchased power expense to the off-system sales margins.

A: The following example illustrates the financial settlement with SPP under the SPP EIS market and the impact on KCPL wholesale margins, given KCPL's historic wholesale margin calculation methodology.

Figure 1 below shows the plan for meeting 300 MW of native load requirements for one hour in the future with 200 MW sourced from KCPL-owned generation and 100 MW from a bilateral purchase (i.e., a purchase from a third party supplier). This plan is conveyed to SPP prior to actual operations for the hour.

Figure 1. Scheduled Transactions

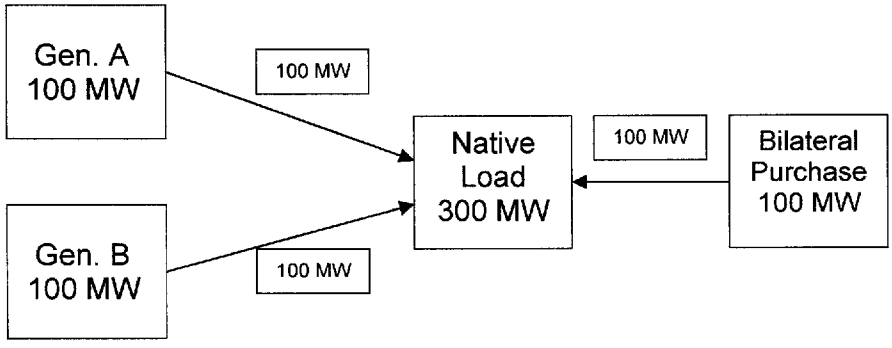
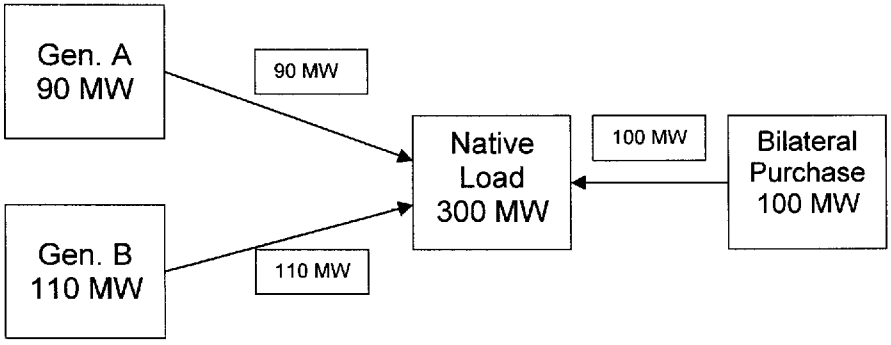


Figure 2 below shows what actually happened in real time. Generator A only produced 90 MW (instead of the 100 MW scheduled) while Generator B actually produced 110

MW (instead of the 100 MW scheduled). In total, there were 300 MW of resources used to meet the 300 MW of actual native load.

Figure 2. Actual Transactions



In the SPP EIS market, a financial settlement with SPP is based on the differences between scheduled transactions (shown in Figure 1) and actual transactions (shown in Figure 2).

Assuming that the Locational Imbalance Price (LIP) equals $20/MWh at all locations, this is the assumed market price that all imbalances are settled against:

Generator A Settlement = (Schedule Gen - Actual Gen) * LIP
= (100 MW – 90 MW) * $20/MWh
= (10 MW) * $20/MWh
= $200 Purchased from SPP EIS Market

Generator B Settlement = (Schedule Gen - Actual Gen) * LIP
= (100 MW – 110 MW) * $20/MWh
= (- 10 MW) * $20/MWh
= $-200 Sold to SPP EIS Market

While the net SPP settlement for Generator A and Generator B is $0, a 10 MW sale and 10 MW purchase was created. This increased the wholesale purchases in support of wholesale sales by 10 MW.

Prior to the SPP EIS market, this exact same scenario would not have created a wholesale purchase or a sale. Under the SPP EIS market, these transactions occur at most every generator, for every hour of the day.

Wholesale Margin Calculation

Based on the example above, KCPL's historic wholesale margin calculation methodology would be as follows:

Based on a stacking process, resources are sorted in cost order. The available resources and costs are:

Resource	MW	Cost
Generation A	90	$15
Generation B	110	$18
SPP Purchase	10	$20
Bilateral Purchase	100	$50

The highest cost resources are then assigned to any wholesale sales (thus, the lowest cost resources are assigned to native load). In this example, 10 MW were sold to the SPP EIS market. The highest cost resource is the $50 bilateral purchase. Therefore the margin calculation is:

Revenue from 10 MW sale to SPP EIS market = $200
Cost of 10 MW sale to SPP EIS market = $500 (10MW * $50/MWh)
Net wholesale margin = $-300

Prior to the SPP EIS market, this set of transactions would have resulted in no wholesale sales. With the SPP EIS market in place, this same scenario effectively results in a 10

MW wholesale sale to the SPP EIS market showing a $300 loss. The true total cost to serve native load was unchanged, however, $300 of the bilateral purchased power cost was assigned to a loss in wholesale margins.

Q: Has KCPL modified the process used to determine actual off-system sales margins to remove the SPP EIS market impacts?

A: Yes.

Q: Please describe the modification.

A: Once the traditional PACE process of allocating resources (both generation and purchases) to meet wholesale sales has been completed, KCPL removed a portion of the transactions from the actual off-system sales margin. The transactions that were removed include:

(1) Any transaction where PACE indicates a sale to the SPP EIS market that was supplied by a bilateral purchase. This is the type of transaction demonstrated in the earlier example that indicated a $300 loss.

(2) Any transaction where PACE indicates a bilateral sale that was supplied by a bilateral purchase. These types of transactions are typically the result of purchases made on a day-ahead basis with the intent to serve native load, however, not all of the energy purchased was required to meet actual needs in real time and, therefore, a portion is sold wholesale.

(3) Any transaction where PACE indicates a sale to the SPP EIS market that was supplied by an SPP EIS market purchase. These transactions are typically the result of imbalances between KCPL actual generation, as KCPL does not intentionally simultaneously purchase from the SPP EIS market and sell the energy back to SPP at

another location. An example of this type of transaction can be seen in the earlier example where a 10 MW purchase from the SPP EIS market (at Generator A) was offset with a 10 MW sale (at Generator B) to the SPP EIS market.

Q: How will removal of these transactions impact actual off-system sales margins?

A: Based on the wholesale sales transactions for 2007 through September, removing these three transaction types from off-system sales margin calculations increases the actual off-system sales margins by approximately **[redacted]**.

Q: Based on these adjustments, what is KCPL's actual off-system sales margin for the year?

A: From January through September 2007, the actual off-system sales margin for KCPL is approximately **[redacted]**. This calculation can be found in Schedule BLC-2.

Q: Please describe Schedule BLC-2.

A: This Schedule is broken into four major sections: (1) Wholesale sales; (2) Purchased power; (3) Generation costs; and (4) Off-system sales margins. I will describe each column within these sections.

(1) Wholesale Sales Section.

a. Wholesale Sales. This includes all KCPL wholesale sales, with the exception of sales to KCPL's full requirements municipal customers and the four contract customers not previously included in the projection of off-system sales (Independence, Springfield, MJMEUC, and KMEA)

b. Q Sales. These are wholesale sales revenues from transactions that did not impact the KCPL system. For example, an energy sale made to a power marketer in PJM that was backed by a purchase KCPL made from another

party in PJM is a "Q" transaction. It should be noted that Q transactions were not included in the 25th percentile filed in last year's rate case or this current case, and it is KCPL's intent to exclude any such actual transactions during 2008 and beyond.

c. Wholesale + Q Sales. This is the total of (a) and (b) above.

d. Bilateral for SPP Sales. These are revenues associated with sales to the SPP EIS market that were supported by bilateral purchases as indicated by PACE.

e. Bilateral for Bilateral Sales. These are revenues associated with sales to a non-SPP EIS market third party (i.e., bilateral sales) that were supported by bilateral purchases as indicated by PACE.

f. SPP for SPP Sales. These are revenues associated with sales to the SPP EIS market that were supported by purchases from the SPP EIS market as indicated by PACE.

g. Total. This is the total of Wholesale Sales plus Q Sales, reduced by Bilateral for SPP Sales, Bilateral for Bilateral Sales, and SPP for SPP Sales.

(2) Purchased Power Section.

a. Purchases. This is the total purchased power expense as indicated by PACE that supported wholesale sales.

b. Q Costs. This is the total cost of energy purchased to support Q sales.

c. Purchases + Q Costs. This is the total of (a) and (b) above.

d. Bilateral for SPP Sales. These are costs associated with sales to the SPP EIS market that were supported by bilateral purchases as indicated by PACE.

e. Bilateral for Bilateral Sales. These are costs associated with sales to a non-SPP EIS market third party (i.e., bilateral sales) that were supported by bilateral purchases as indicated by PACE.

f. SPP for SPP Sales. These are costs associated with sales to the SPP EIS market that were supported by purchases from the SPP EIS market as indicated by PACE.

g. Total. This is the total of Purchases plus Q Costs, reduced by Bilateral for SPP Sales, Bilateral for Bilateral Sales, and SPP for SPP Sales.

(3) Generation Costs.

a. Fuel Costs. This is the cost of fuel consumed in support of off-system sales. These costs include the cost of fuel adders such as unit train maintenance and depreciation.

b. Fuel Adders. This is the estimated cost of KCPL's fuel adders that are included in the Fuel Cost column described above.

c. Total. This is the cost of fuel consumed in support of off-system sales, adjusted for the estimated cost of fuel adders. This adjustment was made so that the fuel costs included in the actual off-system sales margin calculation are consistent with that in the projected off-system sales margin filed in the 2006 case.

(4) Off-System Sales Margins.

a. Total. This is the total actual off-system sales margins prior to making adjustments for the SPP EIS market impacts.

b. Bilateral for SPP Sales. These are the losses (as indicated by PACE) on transactions associated with sales to the SPP EIS market that were supported by bilateral purchases.

c. Bilateral for Bilateral Sales. These are the losses (as indicated by PACE) on transactions associated with sales to a non-SPP EIS market third party (i.e., bilateral sales) that were supported by bilateral purchases.

d. SPP for SPP Sales. These are the losses (as indicated by PACE) on transactions associated with sales to the SPP EIS market that were supported by purchases from the SPP EIS market.

e. Adjusted Total. This is the total actual off-system sales margin after removing the losses described in (b), (c), and (d) immediately above.

Q: Have these adjustments to the actual off-system sales margin data previously presented to the Commission been explained to the Staff?

A: Yes. I and other KCPL representatives met with members of the Staff, as well as the Office of the Public Counsel on October 22, 2007 to explain and discuss these adjustments.

Q: Does that 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-2007-0291

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 Manager, Energy Resource Management.

2. Attached hereto and made a part hereof for all purposes is my True-Up Direct Testimony on behalf of Kansas City Power & Light Company consisting of thirteen (13) 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

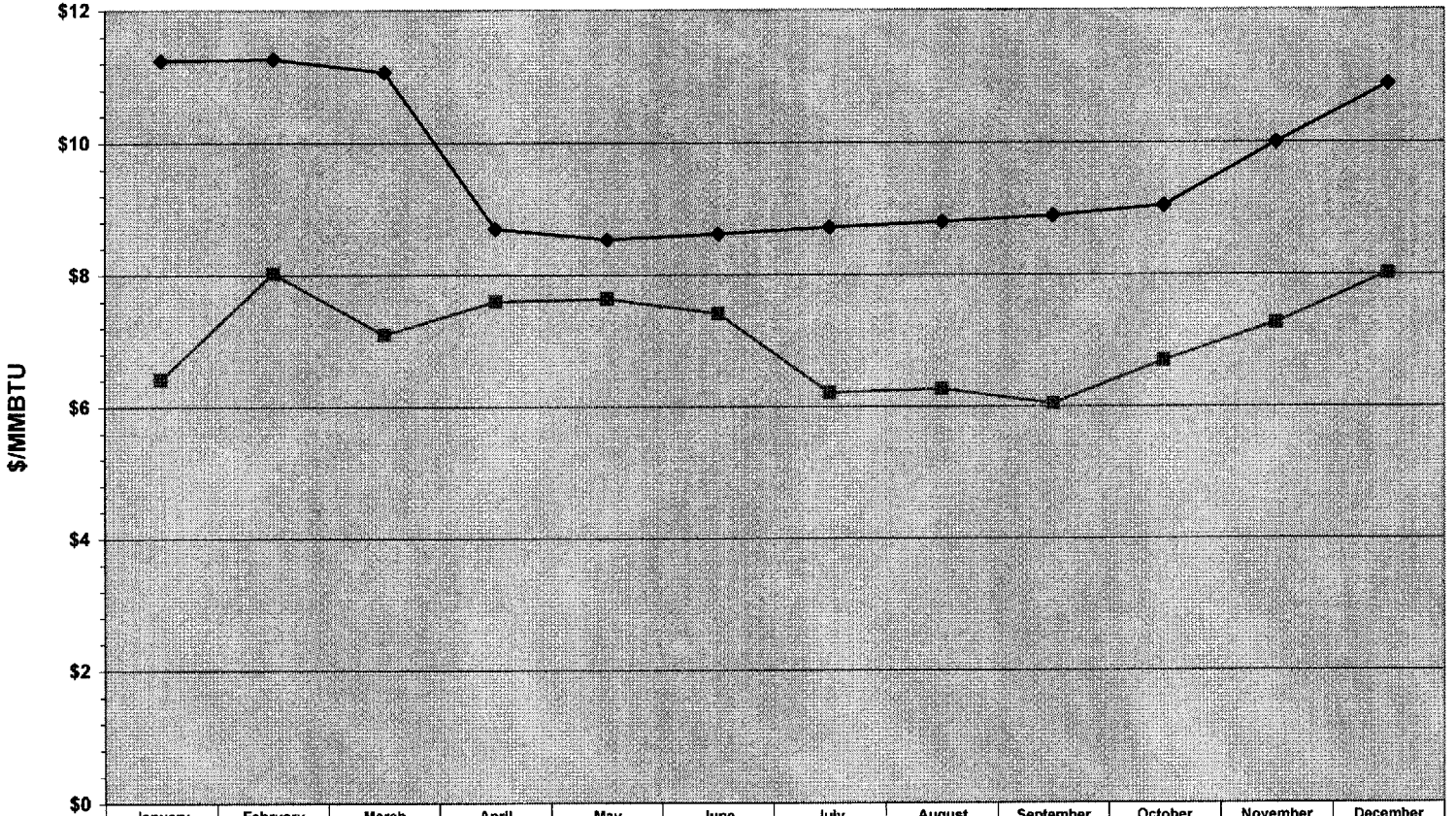
Subscribed and sworn before me this 2nd day of November 2007.

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

2007
Henry Hub Gas Price



	January	February	March	April	May	June	July	August	September	October	November	December
Current: 10-30-07	$6.413	$8.029	$7.097	$7.600	$7.633	$7.414	$6.210	$6.264	$6.045	$6.694	$7.269	$8.021
Budget Run: 8-29-06	$11.246	$11.269	$11.073	$8.698	$8.535	$8.621	$8.720	$8.801	$8.893	$9.044	$9.998	$10.880

Schedule BLC-1

SCHEDULE BLC-2

THIS DOCUMENT CONTAINS HIGHLY CONFIDENTIAL INFORMATION NOT AVAILABLE TO THE PUBLIC