Exhibit No.:
Issue: Risk from Off-System Sales
Witness: Michael M. Schnitzer
Type of Exhibit: Direct Testimony
Sponsoring Party: Kansas City Power & Light Company
Case No.: ER-2010-____
Date Testimony Prepared: June 4, 2010

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2010-____

DIRECT TESTIMONY

OF

MICHAEL M. SCHNITZER

ON BEHALF OF

KANSAS CITY POWER & LIGHT COMPANY

Kansas City, Missouri
June 2010

"[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.

DIRECT TESTIMONY

OF

MICHAEL M. SCHNITZER

Case No. ER-2010-____

Q: Please state your name and business address.

A: My name is Michael M. Schnitzer. My business address is 30 Monument Square, Concord, Massachusetts 01742.

Q: By whom and in what capacity are you employed?

A: I am a Director of the NorthBridge Group, Inc. ("NorthBridge"). NorthBridge is a consulting firm specializing in providing economic and strategic advice to the electric and natural gas industries.

Q: Please summarize your relevant professional background.

A: In 1992, I co-founded NorthBridge. Before that, I was a Managing Director of Putnam, Hayes & Bartlett, which I joined in 1979. I have focused throughout this time on assisting energy companies with strategic issues, particularly those relating to competition and wholesale market structure issues.

I have testified before the Federal Energy Regulatory Commission ("FERC") and a number of state commissions on issues relating to competitive restructuring and wholesale market design, including Locational Marginal Pricing and Financial Transmission Rights, Regional Transmission Organizations, standard market design, resource adequacy, and transmission expansion policies. On several occasions I have been invited by FERC staff to participate as a panelist in technical conferences on these subjects.

I hold a Master of Science degree in Management from the Sloan School of Management of the Massachusetts Institute of Technology, which I received in 1979. My concentration was in finance. I also received a Bachelor of Arts degree in chemistry, with honors, from Harvard College in 1975. A copy of my resume is attached as Schedule MMS2010-1.

Q: Have you previously testified in a proceeding before the Public Service Commission of the State of Missouri ("Commission")?

A: Yes. I have provided testimony in three prior rate cases on behalf of Kansas City Power & Light Company ("KCPL" and "Company"), in each case in support of the Company's proposals for the treatment of off-system energy and capacity sales revenue and related costs as "above the line" for ratemaking purposes. In 2006, I provided Direct, Rebuttal and Surrebuttal Testimony in Case No. ER-2006-0314 ("2006 Rate Case"). In 2007, I provided Direct, Surrebuttal and Direct True-Up Testimony in Case No. ER-2007-0291 ("2007 Rate Case"). In 2008/2009, I provided Direct, Rebuttal and Surrebuttal Testimony in Case No. ER-2009-0089 ("2009 Rate Case").

I. PURPOSE OF TESTIMONY AND CONCLUSIONS

Q: Please describe the purpose of your testimony.

A: As I did in each of the three prior rate cases, I am providing a probabilistic analysis of the Company's level of net revenues (i.e., revenues less associated expenses) from off-system sales ("Off-System Contribution Margin" and "Margin") in this case ("2010 Rate Case")[1]. In the 2006 Rate Case and the 2007 Rate Case, the Commission approved

[1] My testimony in the 2006 Rate Case addressed the probability distribution of Off-System Contribution Margin for the 2007 calendar year. My testimony in the 2007 Rate Case addressed the 2008 calendar year. My testimony in the 2009 Rate Case addressed the period August 1, 2009 to July 31, 2010. My Direct Testimony in this 2010 Rate Case addresses the probability distribution of Margin for the period April 1, 2011 to March 31, 2012.

KCPL's proposal to establish the offset to revenue requirements for off-system sales at the 25th Percentile of my probabilistic analysis and to treat any amounts above the 25th percentile (i.e., any positive difference between the realized Off-System Contribution Margin and the 25th Percentile value) as a regulatory liability for future return to the ratepayers. See Report and Order at 33-37 (December 21, 2006), Order Regarding Motions for Rehearing at 3 (January 18, 2007), and Report and Order at 33-40 (December 6, 2007). In the 2009 Rate Case, the Commission approved a Non-Unanimous Stipulation and Agreement – settling the amount of jurisdictional gross annual electric revenues – which also set the 25th Percentile value[2] of the Margin for ratemaking purposes at ** [redacted] ** and adopted the same regulatory liability accounting for off-system sales as in the 2007 Rate Case. See Order Approving Non-Unanimous Stipulations and Agreements and Authorizing Tariff Filing, Appendix A at 9 (June 10, 2009).

My Direct Testimony in this 2010 Rate Case supports the Company's proposed ratemaking treatment for off-system sales described in the Direct Testimony of Company witness Curtis D. Blanc. Consistent with the Commission's prior orders in the 2006 Rate Case and the 2007 Rate Case, KCPL proposes for the 2010 Rate Case to establish Off-System Contribution Margin at ** [redacted] **, the 25th Percentile of my probabilistic analysis for the period April 1, 2011 to March 31, 2012 ("2011-12 Period") and to account for this as a reduction to KCPL's test year revenue requirements.

My testimony is organized in three parts. In the first part, I summarize the main points of my testimony concerning the risk and volatility of Off-System Contribution Margin as set out in my testimony in the three prior rate cases. In the second part of my

[2] My Rebuttal Testimony in the 2009 Rate Case calculated the 25th Percentile value to be ** [redacted] **.

testimony, I discuss changes in the underlying drivers of the probability distribution of Margin since the 2009 Rate Case was filed on September 5, 2008, focusing on the volatility in the financial and energy markets in the fall of 2008, which continued into 2009. In the third part of my testimony, I provide a prospective analysis of the probability distribution of Margin in the 2011-12 Period ("2011-12 Margin" or "2011-12 Off-System Contribution Margin").

Q: Could you please summarize your conclusions?

A: Yes, there are three. First, as in prior rate cases, a forecast of Off-System Contribution Margin that takes into account all available forward market information provides the most accurate, unbiased prediction of 2011-12 Margin. A forecast made in April 2010 is likely to vary substantially from the level of 2011-12 Margin actually realized and the range of potential outcomes can be represented by a probability distribution that quantifies the variability in the outcomes. Second, energy prices, the underlying drivers of Margin, were extremely volatile in 2008 and 2009 and the volatility of these drivers remains high. Third, a comprehensive prospective assessment of 2011-12 Margin indicates a broad range of possible outcomes centered on a median value of **[redacted]**, with a 25 percent likelihood of less than a **[redacted]** contribution from 2011-12 Margin.

II. SUMMARY OF RISK AND VOLATILITY TESTIMONY

Q: Please elaborate on your first conclusion.

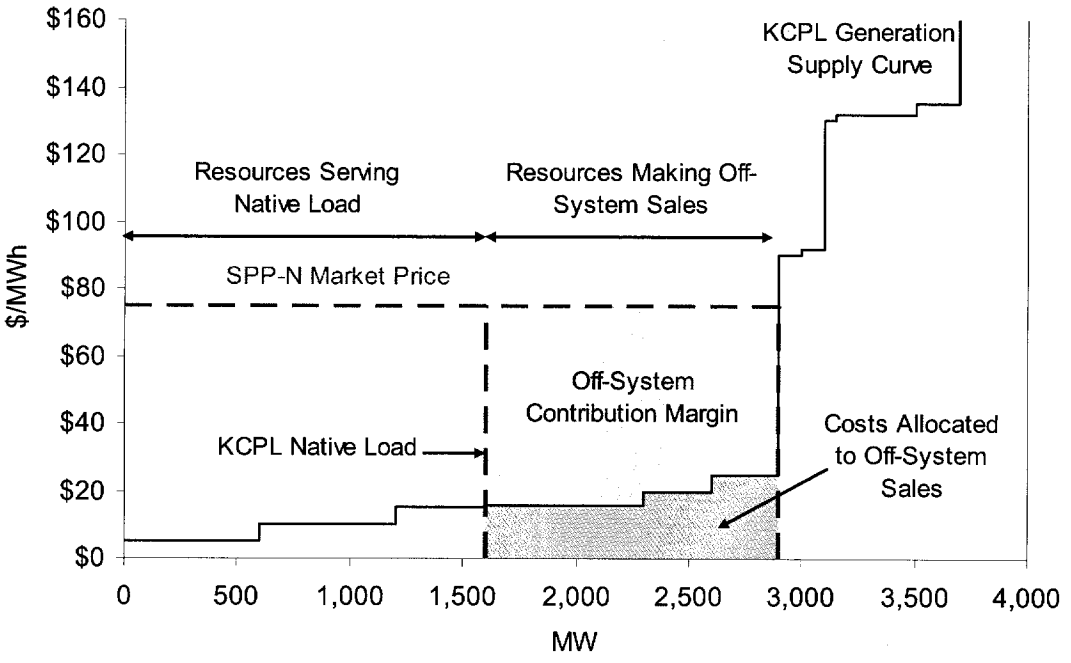
A: My Direct Testimony in the 2006 Rate Case discussed in detail the risk factors associated with making coal-based off-system sales, particularly where (as in the case of KCPL) the net revenue from the sales constituted a large portion of a company's earnings. The key

points from that testimony (which were restated in the 2007 Rate Case and the 2009 Rate Case) are set out below and are equally applicable to an analysis of 2011-12 Off-System Contribution Margin.

Q: What is Off-System Contribution Margin?

A: In any hour, Off-System Contribution Margin is the difference between gross revenues from off-system sales and incremental costs for those sales. The concept is illustrated in Figure 1 below.

Figure 1 – Illustrative Hourly Off-System Contribution Margin



As illustrated in Figure 1, KCPL retail sales and firm wholesale sales ("Native Load") are first served by the least cost resources in the KCPL generation supply curve. Costs are then allocated to non-firm off-system sales based on the incremental cost of operating the next units in KCPL's generation supply curve to make the additional off-system sales, which incremental costs are based largely on the price of coal. Revenues are simply the

market price realized times the quantity available for sale. As illustrated in Figure 1, KCPL makes off-system sales at a regional SPP-North market price. The price for non-firm sales in any particular hour is simply the intersection of the regional supply and demand curves in that hour.

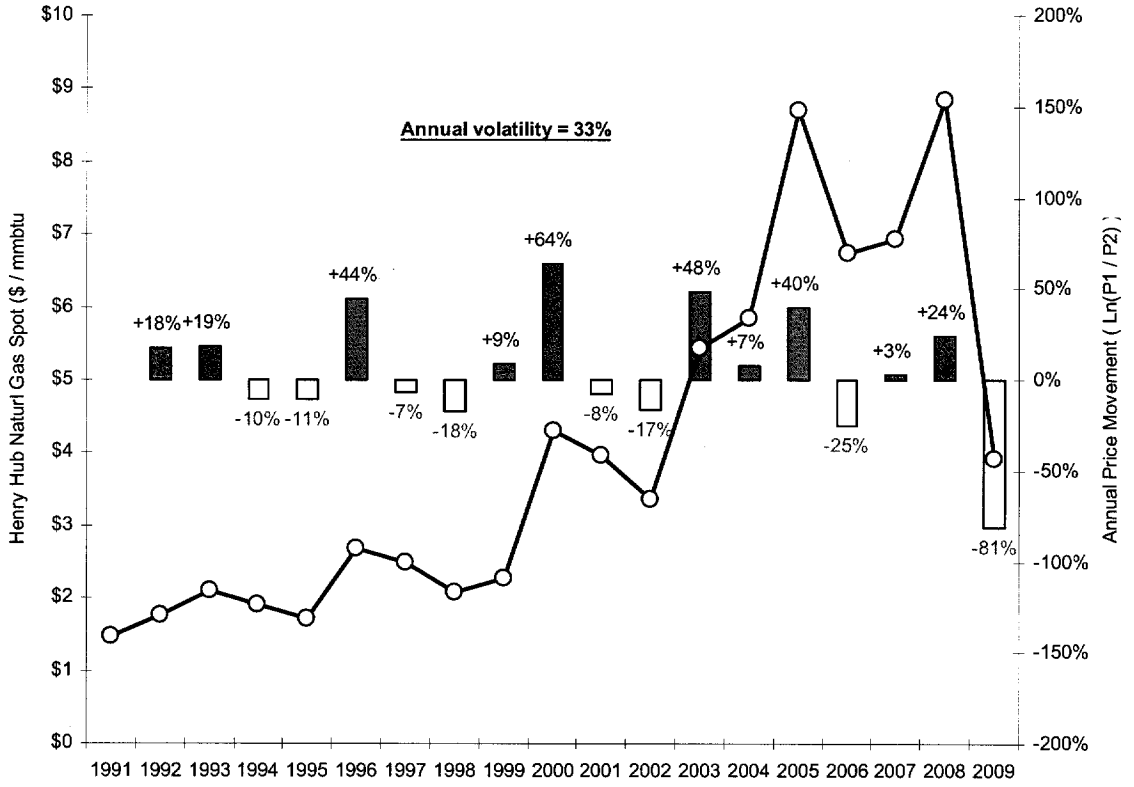
Q: What causes volatility in Off-System Contribution Margin?

A: Although there is some potential for volatility in the cost of making non-firm sales, the primary source of volatility is from revenue volatility. Off-system sales revenue volatility is a function of the market price volatility and the variability in the sales quantity. Electricity market prices in SPP-North are the product of natural gas prices and the "market heat rate" in a given period. The market heat rate is not the same as a physical heat rate. For example, an efficient baseload coal unit may have a physical heat rate of 9,500 Btu/kwh, while a gas peaking unit may have a physical heat rate of 12,000 Btu/kwh. Instead, a market heat rate represents the market price of electricity in any hour denominated in $/mwh divided by the current delivered price of natural gas denominated in $/mmBtu. Dividing through and adjusting for units produces a quotient which is a "market heat rate" denominated in Btu/kwh. Price volatility can be described as a function of these two factors: gas price and market heat rate.

The first factor, the spot price of natural gas, has experienced significant volatility – averaging 33 percent annually – for the past eighteen years as demonstrated in Figure 2. Spot prices for gas increased significantly in 2008 and then dropped precipitously following the world-wide financial crisis of fall 2008, as discussed in more detail in the second and third parts of my testimony. The drop in annual average prices between 2008

and 2009 was an unprecedented 81 percent[3] and reflects the high degree of uncertainty surrounding natural gas prices.

Figure 2 – Annual Gas Prices and Volatility 1991 to 2009



The second factor, the "market heat rate," is simply the ratio relating gas prices to electricity prices, but is itself an uncertain variable. Even if there is no gas price volatility, changes in the supply/demand balance will result in different units being on the margin in different time periods. Consequently, electricity prices will fluctuate as the market heat rate changes. This uncertainty is driven by several underlying factors: coal and emission allowance prices, weather (relatively extreme temperatures elevate demand), fluctuations in economic activity and demographics, unit availability

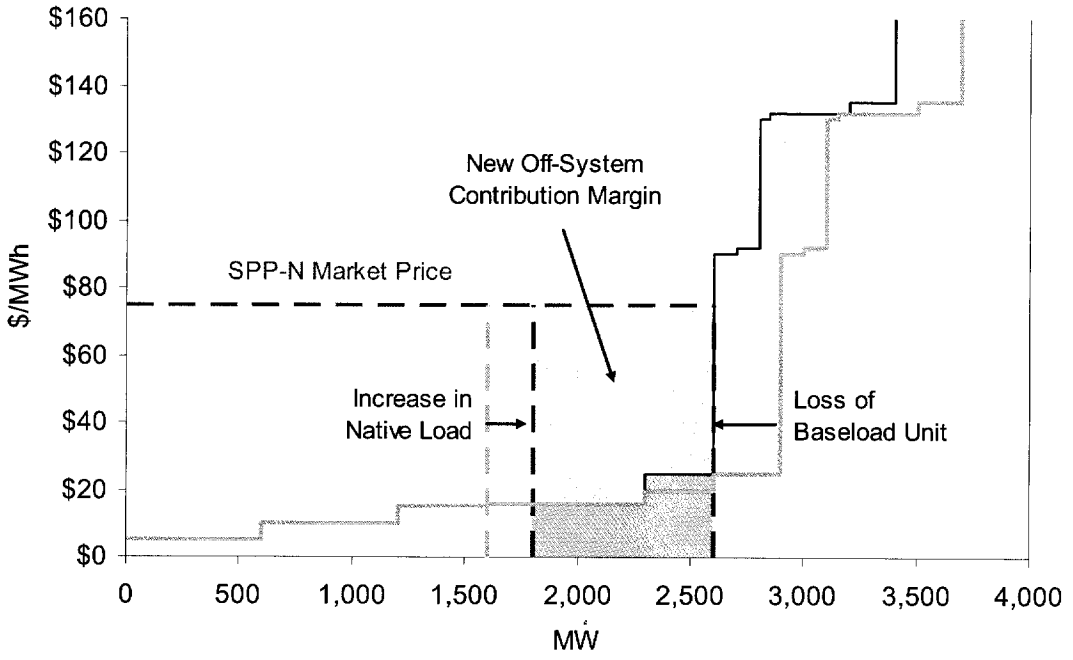
[3] Calculated as the natural logarithm of the ratio of the 2008 price to the 2009 price.

(particularly extended outages), and construction/retirement of generating units throughout SPP.

Q: What is the impact of variability in sales quantity on Off-System Contribution Margin?

A: As total off-system revenues are the product of the price realized and the quantity available for sale, variability in available sales quantity can also significantly affect Off-System Contribution Margin. The two biggest factors in the quantity available for sale are unit availability and KCPL's Native Load and firm load obligations. A unit outage and/or an increase in Native Load can reduce the size of the Margin as illustrated in Figure 3 below.

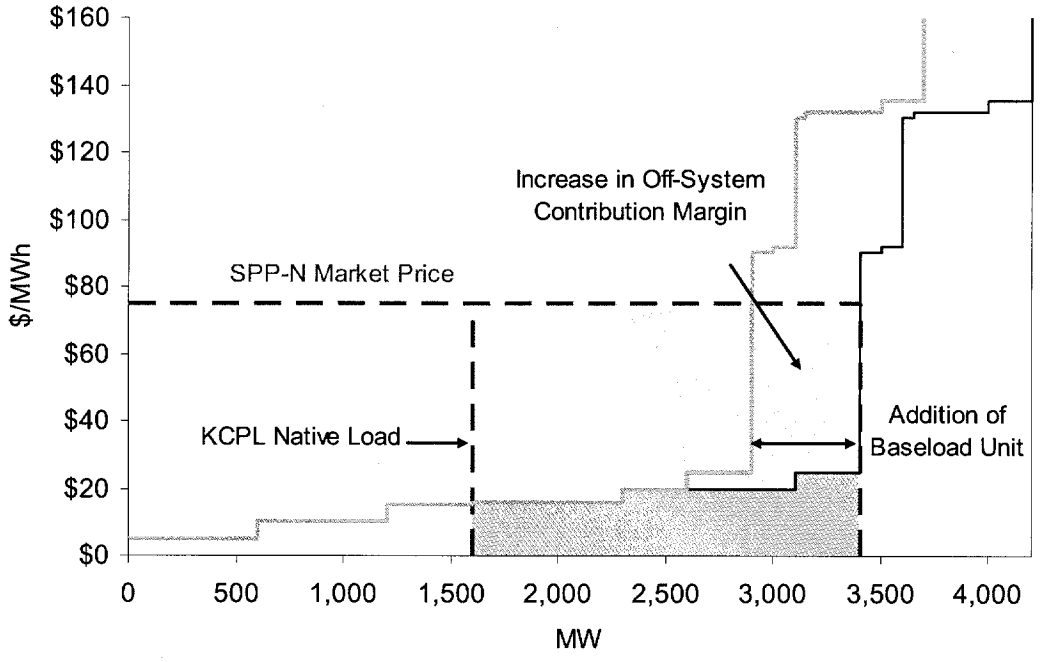
Figure 3 – Impact of Loss of Baseload Unit and Increase in Native Load



For example, if a large baseload unit becomes unavailable because of planned maintenance or a forced outage, the supply curve will shift to the left, decreasing the area

under the horizontal SPP-North market price line and to the right of the vertical KCPL Native Load line. In this case, other higher-priced KCPL units will be available, but will not be economic to dispatch at that particular market price. Similarly, if the Native Load increases, then all other things equal, there will be a smaller amount of economic output available for off-system sale at market prices. Conversely, as illustrated in Figure 4 below, the addition of new coal-fired capacity, such as Iatan 2, will have a significant positive impact on the amount of KCPL's available economic output and consequently on Margin. The impact of Iatan 2 on 2011-12 Margin is discussed in more detail in the third part of my testimony.

Figure 4 – Impact of Addition of Baseload Unit (Iatan 2)



Q: Do past realized Off-System Contribution Margins provide a good prediction for the future?

A: In general, no. The Company's future Off-System Contribution Margins will depend on future electricity and gas prices, loads, fuel prices, and unit availability. The best current predictor of future commodity prices and the associated future Margins is visible forward market prices. That is not to say that actual results will not turn out to be different than the forecast – they likely will – but a forecast based on forward price data is the best that can be done.

Q: Please summarize your first conclusion.

A: As in the prior rate cases, the underlying drivers of 2011-12 Off-System Contribution Margin are historically volatile. This historic volatility continued and increased in 2008 and 2009, as discussed further in the second part of my testimony. As a result, the realized 2011-12 Margin will vary from a point forecast made in April 2010 and this variability can be quantified in a probability distribution as shown in the third part of my testimony.

III. VOLATILITY IN OFF-SYSTEM CONTRIBUTION MARGIN DRIVERS

Q: Please elaborate on your second conclusion.

A: The historical volatility in the underlying drivers of Off-System Contribution Margin increased in 2008 and 2009. The increase in volatility corresponded to the run-up in energy prices prior to the fall 2008 world financial crisis, and the sharp decline in energy prices thereafter into 2009. The three probability distributions of Margin prepared for the 2009 Rate Case were based on market dates of July 15, 2008, September 30, 2008 and February 24, 2009. The first distribution was prepared from market data near the peak of

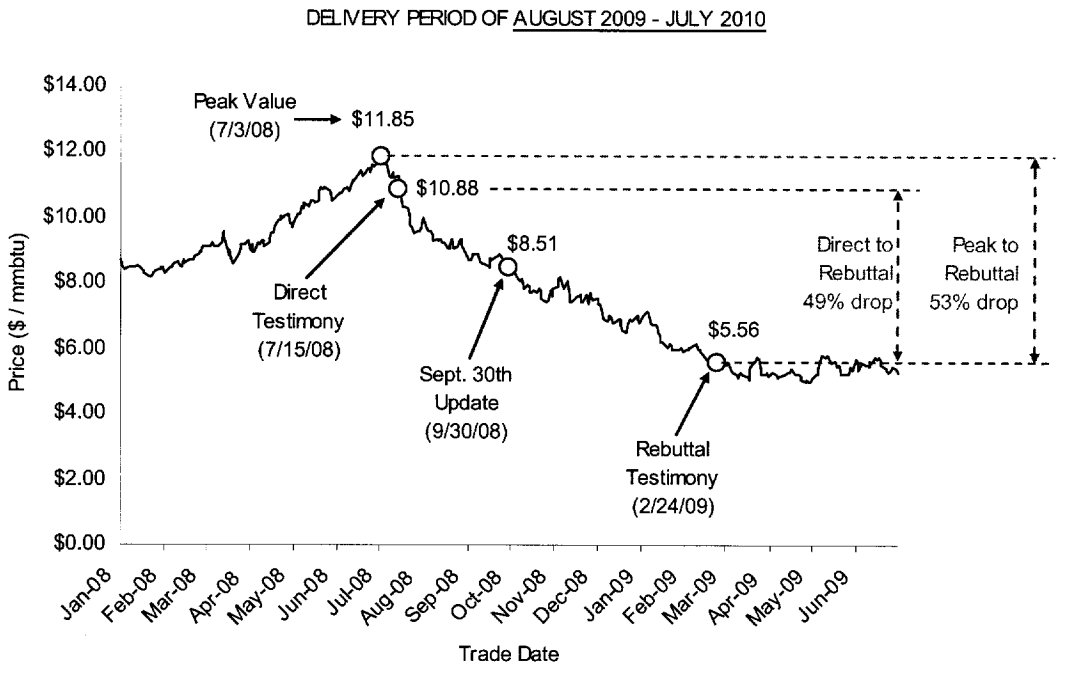
the energy markets and the last was based on market data closer to the bottom. As discussed in detail in my Rebuttal Testimony filed in the 2009 Rate Case[4], the 25th Percentile value of Margin in the corresponding probability distributions declined from **[redacted]** to **[redacted]** to **[redacted]** with the largest driver of the decline in Margin being the decrease in electricity prices in SPP-North.

Q: Why did electricity prices in SPP-North decline so significantly in the last half of 2008 and the first quarter of 2009?

A: As discussed in the first part of my testimony, the most significant driver of electricity prices in SPP-North is the price of natural gas. Both the spot prices for natural gas and forward strips for natural gas continued to be volatile in 2008 and 2009. The 2009 Rate Case addressed the twelve months ending July 31, 2010. An annual forward strip for this rate period (the "Period Strip") can be calculated from monthly forward contracts. This Period Strip reached its highest point on July 3, 2008, when it traded at a price of $11.85/mmBtu. The strip was lower on July 15th (the market date corresponding to the Direct Testimony) at $10.88/mmBtu and declined further to $8.51/mmBtu on the market date of the September 30th Update analysis. In the first quarter of 2009, the Period Strip continued to decline to close at $5.56/mmBtu on February 24, 2009, the market date corresponding to the Rebuttal Testimony, down 53% from the peak and 49% from the July 15th price.

[4] KCPL Exh. 52 (HC) Michael M. Schnitzer – Rebuttal at 2-5.

Figure 5 – Henry Hub Period Strip

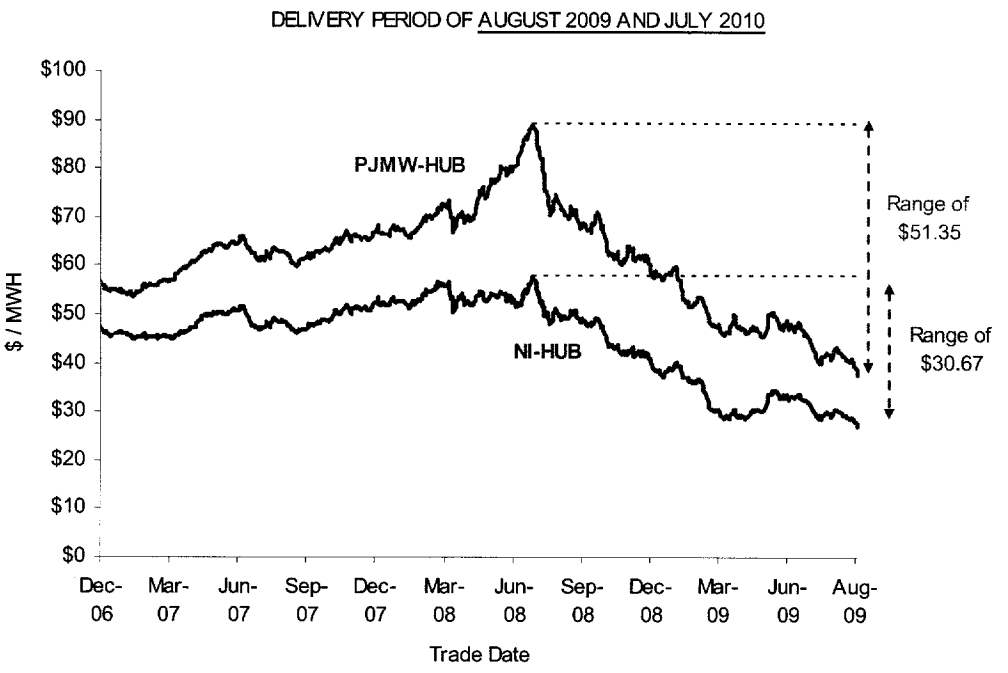


Q: What were the observed price movements in the forward markets for electricity over the same period of time?

A: The forward market in SPP-North is currently a bilateral market in which equivalent forward strip prices are not directly observable. However, similar price volatility in 2008 and 2009 can be directly observed at other regional trading hubs, such as the Northern Illinois Hub ("NI-Hub") and the PJM Western Hub ("PJMW-Hub")[5]. Figure 6 below shows both markets peaked in mid-summer 2008 near the peak in the Henry Hub gas forward strip and both of these observable markets declined through the first quarter of 2009.

[5] The NI-Hub and the PJMW-Hub each offer buyers and sellers a trading point for a location-price-based energy market and a common price index that provides certainty about the price reference point. The hubs consist of pricing points from a large number of generation and load buses in particular geographic areas of PJM.

Figure 6 – PJMW-Hub and NI-Hub Period Strip 7x24 Contracts



Q: What does this tell us about the prices for electricity in SPP-North during this period of time?

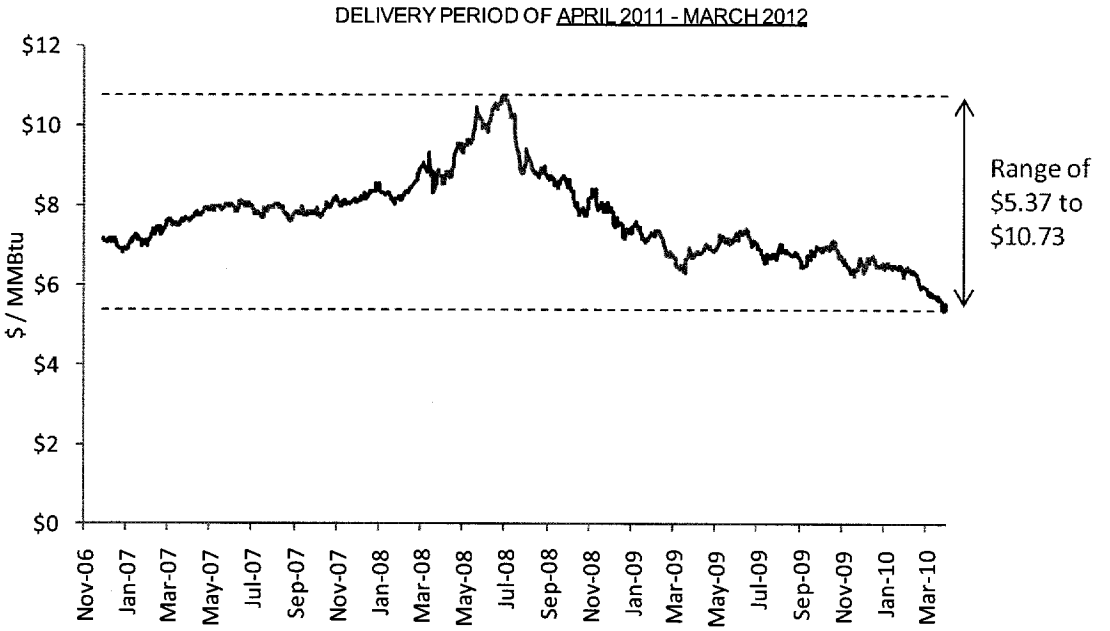
A: Although not directly observable, the forward market for electricity in SPP-North in 2008 and 2009 was likely characterized by the same kind of price declines and volatility evident in observable market data during the same period in both gas markets and other regional power markets.

Q: What have been the observed price movements in natural gas forwards through the end of 2009?

A: The Period Strip discussed above stopped trading in July 2009. However, the Henry Hub forward strip for delivery between April 2011 and March 2012 continues to trade, and has traded since late-2006 in a range of $5.37/mmBtu to $10.73/mmBtu. That contract

peaked with the energy markets in mid-summer 2008 and declined through the first quarter of 2010, and is currently trading near its low.

Figure 7 – Forward Price for Henry Hub Strip



Q: What do you conclude from this recent period of volatility?

A: The financial bubble and follow-on financial crisis of 2008-2009 caused enormous disruptions in financial and credit markets worldwide. The impacts in the gas and electric markets led to a spike in the prices of these commodities in mid-summer 2008 and their rapid collapse in the last half of 2008 and the first quarter of 2009. The markets traded in a lower range in the second half of 2009, but volatility and uncertainty remain and a probabilistic forecast of 2011-12 Margin will still be characterized by high volatility.

IV. PROBABILITY DISTRIBUTION OF 2011-12 OFF-SYSTEM CONTRIBUTION MARGIN

Q: Please elaborate on your third conclusion.

A: I prepared an estimate of the probability distribution of 2011-12 Off-System Contribution Margin using a simplified forecast and dispatch model. The results, as detailed in Schedule MMS2010-2 (HC), show a very broad probability distribution with a median value of ** [redacted] ** and ranging from ** [redacted] ** to ** [redacted] ** at the 5% and 95% confidence levels, respectively. This means there is a 95% likelihood that the Margin will be between ** [redacted] ** and ** [redacted] **, a 5% likelihood that the Margin will be less than ** [redacted] **, and a 5% likelihood that the Margin will be greater than ** [redacted] **. The 25th Percentile of this distribution as shown in Schedule MMS2010-3 (HC) is ** [redacted] **. Again, this means there is a 25% likelihood that the Margin will be less than ** [redacted] ** and a corresponding 75% likelihood that the Margin will be greater than ** [redacted] **.

Q: Please describe the methodology used to develop the distribution of 2011-12 Off-System Contribution Margin.

A: My methodology for 2011-12 was the same as that used in preparing the Off-System Contribution Margin distributions for the three prior rate cases. The methodology has five primary steps. First, KCPL provided energy price, fuel price, and load forecasts, and I calculated historical volatilities for input variables, in order to develop 1000 equally-likely scenarios for each variable. I also constructed 1000 equally-likely forced outage scenarios for each generating unit in KCPL's supply portfolio. The scenarios incorporate the correlation between variables, such that if natural gas prices and oil prices are highly

correlated, a high gas price scenario will correspond to a high oil price scenario. Second, for each of the 1000 scenarios, I calculated a daily dispatch cost for each of KCPL's units. By sorting these dispatch costs from least to greatest, I developed the optimal dispatch order of units for each scenario. Third, I calculated the total available capacity for each unit, taking into account both planned outages and scenario-specific forced outages as well as any long-term sales agreements and load obligations that could reduce the capacity available to serve KCPL's native load. Fourth, starting with the most economic unit, I compared each unit's dispatch costs and available capacity with the hourly market prices and native load, respectively. For all units with a dispatch cost less than the market price, the available capacity was assigned to serve first up to 100% of native load with any excess capacity assigned to off-system sales. Fifth, I calculated the hourly contribution margin by subtracting the dispatch cost from the hourly market price and multiplying this difference by the available capacity. The 1000 scenarios of hourly contribution margin data were aggregated to daily, monthly and annual estimates. Finally, I estimated a distribution of 2011-12 Margin based on the characteristics of the 1000 equally-likely scenarios. A description of the key inputs to the analysis is set out in Schedule MMS2010-4.

Q: How is NorthBridge's 2010 Rate Case probabilistic analysis of 2011-12 Margin different from the 2009 Rebuttal probabilistic analysis of Margin you conducted in the 2009 Rate Case?

A: As described previously, my final analysis in the 2009 Rate Case was filed on March 11, 2009[6] as part of my Rebuttal Testimony and produced a 25th Percentile value of **[redacted]** and a Median value of **[redacted]**. The current 2011-12 analysis

described above was based on data supplied by KCPL as of March 16, 2010, and so reflects updated market data on gas and electricity prices. The current 2011-12 analysis also looks at a different time period (the twelve months ending March 31, 2012 instead of twelve months ending July 31, 2010), and so load forecasts, outage schedules and forecasts of other variables reflect changes between the two periods. Most importantly, the addition of Iatan 2 provides a significant increase in off-system sales capability for the Company in 2011-12.

Q: Have you made any changes to your analysis to account for the unprecedented market volatility in 2008-2009 you described in the second part of your testimony?

A: There have not been any structural changes to the probabilistic analysis. However, in estimating the probability distribution of 2011-12 Margin, I calculated the observed volatilities in energy prices through the end of February 2010. The prior analysis for the 2009 Rate Case calculated these volatilities only through April 2008. Accordingly, the current analysis incorporates updated market data, which reflects the high levels of volatility seen in 2008 and 2009. For example, as can be seen in Figure 2, incorporating the drop in gas prices between 2008 and 2009 has increased the average annual volatility to 33%, from the comparable average of 27%, shown in the comparable Figure 2 from my Direct Testimony in the 2009 Rate Case.

Q: What is the effect of incorporating this updated market volatility information in the 2011-12 probabilistic analysis?

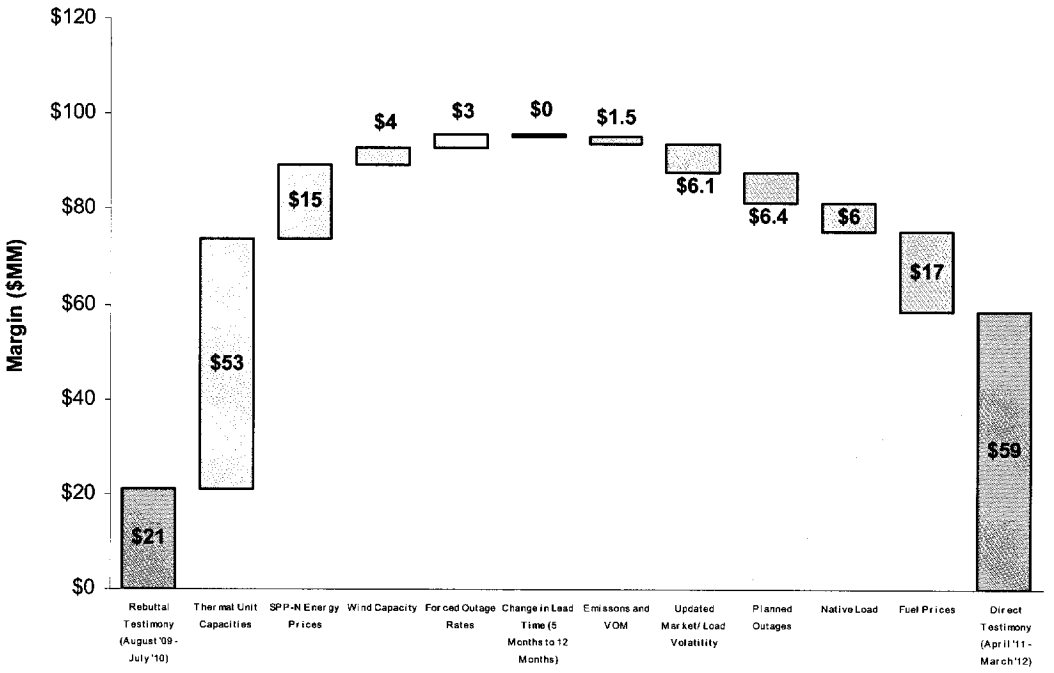
A: The effect is increased variability in the distribution of 2011-2012 Margin. Stated differently, the distribution is more "spread out," reflecting more uncertainty over how much the actual outcome might vary from the median estimate of **[redacted]**.

[6] Based on market data and inputs provided to NorthBridge by KCPL as of February 24, 2009.

Q: What are the key changes between the 2009 Rebuttal probabilistic analysis and the current probabilistic analysis for 2011-12?

A: Figure 8 below shows graphically the individual changes that have resulted in an increase of the 25th Percentile value from ** [redacted] ** to ** [redacted] **. As can be seen, the addition of Iatan 2 by itself accounts for approximately ** [redacted] ** of the increased value of the 25th Percentile, with some portion of that incremental value offset by other components. The other main components are an increase in ATC electricity prices in SPP-North which has a positive impact of approximately ** [redacted] **, an increase in fuel prices which has a negative impact of roughly ** [redacted] **, an increase in load obligations which has a negative impact of roughly ** [redacted] **, and a decrease in unit availability etc. which has a negative impact of roughly ** [redacted] **. In summary, the increase in value can be attributed to the additional output of Iatan 2, which also offsets factors that otherwise would have led to a further decline in Margin. A more detailed description of these changes is contained in Schedule MMS2010-5 (HC).

Figure 8 – Change from 2009 Rebuttal Testimony to 2010 Direct Testimony



Q: How is NorthBridge's current probabilistic analysis of 2011-12 Off-System Contribution Margin used in the Company's 2010 Rate Case?

A: As described in the Direct Testimony of Mr. Blanc, the Company proposes to establish Off-System Contribution Margin at the 25th Percentile of my probabilistic analysis (**[redacted]**) with certain adjustments sponsored by Company witness Burton Crawford and to account for this as a reduction to KCPL's test year revenue requirements. Adjustment R-35 included in Schedule JPW-2 attached to the Direct Testimony of Company witness John P. Weisensee includes this Margin Northbridge will update its probabilistic analysis of 2011-12 Margin for the 2010 Rate Case in subsequent testimony.

Q: Does this conclude your testimony?

A: Yes.

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-2010-____

AFFIDAVIT OF MICHAEL M. SCHNITZER

COMMONWEALTH OF MASSACHUSETTS)
) **ss**
COUNTY OF MIDDLESEX)

Michael M. Schnitzer, being first duly sworn on his oath, states:

1. My name is Michael M. Schnitzer. I work in Concord, Massachusetts, and I am employed by The NorthBridge Group, Inc. as a Director.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Kansas City Power & Light Company consisting of nineteen (19) pages and Schedules MMS-2010-1 through MMS-2010-5, 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 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.

Michael M. Schnitzer

Subscribed and sworn before me this 28th day of May 2010.

Notary Public

My commission expires: June 21, 2013

MICHAEL M. SCHNITZER **Director**

Michael Schnitzer is a co-founder and Director of The NorthBridge Group. He focuses on management consulting and works with clients in regulated industries to address strategy issues central to maximizing performance. Helping clients develop effective responses to increasingly deregulated markets is central to Mr. Schnitzer's work for electric and gas utilities. He has developed initiatives in marketing, pricing, regulatory relations and supply planning. He also has broad experience in utility reorganizations, having served as a financial advisor to secured parties in three utility bankruptcies and has developed and evaluated a wide array of restructuring proposals. Mr. Schnitzer's project assignments have included:

- Helped develop and analyze alternative restructuring plans, including resolution of such issues as residual vertical and horizontal market power, stranded costs, and ultimate organization of the competitive market for generation.

- Analyzed the financial opportunities afforded by restructuring – including leverage, sale/leaseback and splitting off generating assets – to develop strategies for improving competitiveness and increasing shareholder value.

- Analyzed and developed various rate plans designed to return stranded costs to utilities, including appropriate length of transition periods, true-ups, access charges, and the like.

- Assessed transmission capacity and helped develop economically efficient transmission tariffs, including policies for encouraging economic transmission expansions.

- Estimated the likely price of competitive new generation for cogenerators and IPPs as a basis for assisting utilities in planning their pricing, capacity additions, and marketing plans.

- Assessed pricing and shareholder value under alternative regulatory treatments, and formulated several proposals for rate case settlement.

- Analyzed rate levels and asset values under alternative financial structures and ratemaking treatments.

- Assessed short- and long-term opportunities in the wholesale electricity market and developed marketing plans and proposals for specific candidate buyers.

- Analyzed the economics of completing current utility construction programs and evaluated alternative ratemaking treatments of new generating capacity.

- Assessed regulatory policy issues associated with privatization of the electric supply industry in the United Kingdom, including policies to accomplish access to the transmission system.

- Analyzed the economics of municipal takeover of a portion of the franchise area versus continued service by a utility.

- Assisted in the development of acid rain compliance plans, including the merits of policies to require utilities to incorporate monetized environmental externalities in the resource planning process.

- Helped develop comprehensive cost recovery programs, including incentives, for utility-sponsored conservation and load management programs.

Mr. Schnitzer has testified before the public utility commissions of Arkansas, Delaware, Indiana, Maine, Maryland, Massachusetts, New Hampshire, New Mexico, New York, Ohio, Pennsylvania, Rhode Island, Texas, Vermont, and Wisconsin. He is a former adjunct research fellow at the Energy and Environmental Policy Center, John F. Kennedy School of Government, Harvard University.

Before joining NorthBridge, Mr. Schnitzer was a Managing Director at Putnam, Hayes & Bartlett, Inc., where he co-directed the firm's regulated industry practice. Prior to that he was a member of the executive staff of the Appalachian Mountain Club. His experience as assistant to the executive director included the development of financial models and organizational strategic plans, as well as the negotiation of multi-party real estate transactions and the settlement of environmental litigation.

Mr. Schnitzer received an A.B. in chemistry, with honors, from Harvard University, and an M.S. in management from the Sloan School, Massachusetts Institute of Technology.

SCHEDULES MMS2010-2
and MMS2010-3

THESE DOCUMENTS CONTAIN HIGHLY CONFIDENTIAL INFORMATION NOT AVAILABLE TO THE PUBLIC

Description of Inputs for Prospective Analysis

The primary components necessary to estimate the 2011-12 Off-System Contribution Margin are market electricity prices, fuel prices used to calculate the dispatch costs of KCPL's owned-generation, and native load levels. I calculated volatility and correlation parameters for each variable from historically observed prices and load levels. I then developed forecasts for each of the variables from the present through March 2012. The table describes the data used to develop the 2011-12 Off-System Contribution Margin distribution.

Variable	Source for Forecast	Source for Volatility and Correlation Estimates
Energy Price	Company SPP-N Regional Energy Price Forecast	Historical Megawatt Daily On-Peak and Off-Peak Day-Ahead Energy Prices
Natural Gas Price	Company SPP-N Delivered Gas Price Forecast	Historical NYMEX Henry Hub Natural Gas Forwards and Henry Hub – MidCon Basis Forwards
Coal Price	Company Delivered Coal Price Forecast	Historical prompt month CAPP NYMEX Forwards
Oil Price	Company Delivered Fuel Oil Price Forecast	Historical NYMEX NY Harbor No 2 Fuel Oil Forwards
SO_2 Price	Company SO_2 Allowance Price Forecast	Historical SO_2 Allowance Spot and Forward Prices
NOX Price	Company NOX Allowance Price Forecast	Historical NOX Allowance Spot and Forward Prices
KCPL Native Load	Company Load Forecast	Historical Hourly Company Load
Forced Outage Rate	Company Budget Assumptions	N/A
Planned Outage Rate	Company Budget Assumptions	N/A

Assumption	Units	Rebuttal Update	2010 Direct Testimony	Change
Market Date	Date	February 24, 2009	March 16, 2010	
Study Period	Date Range	August 2009 – July 2010	April 2011 – March 2012	
Natural Gas (Henry Hub)	$ / MMBTU	$5.52	$5.73	+$0.21 (+3.9%)
Natural Gas (Delivered)	$ / MMBTU	$5.12	$6.00	+$0.88 (+17.2%)
Delivered Coal	$ / MMBTU	$1.37	$1.91	+$0.54 (+39.5%)
SOX Allowances	$ / TON	$76	$37	-$39 (-51.7%)
NOX Allowances	$ / TON	$3,762	$550	-$3212 (-85.4%)
Firm Load (Including Spinning Reserves and Contract Commitments)	GWH	17,864	18,344	+480 (+2.7%)
Wind Production	GWH	404	789	+385 (+95.2%)
Peak Energy (5x16)	$ / MWH	$42.31	$50.60	+$8.29 (+19.6%)
Off Peak Energy (7x8)	$ / MWH	$25.17	$26.01	+$0.84 (+3.3%)
Weekend Energy (2x16)	$ / MWH	$31.56	$34.82	+$3.26 (+10.3%)
ATC Energy (7x24)	$ / MWH	$34.53	$39.39	+$4.86 (+14.1%)
Baseload Planned Outages	MW x DAYS	67,952	86,280	+18,328 (+27.0%)
Baseload Forced Outage Rate	%	8.69%	7.31%	-1.38%
Coal / Nuclear Capacity	MW	2,833	3,305	+472 (+16.7%)