Exhibit No.:	
Issues:	Revenue Requirement
Witness:	Nicholas L. Phillips
Type of Exhibit:	Surrebuttal Testimony
Sponsoring Party:	Missouri Industrial Energy Consumers and Midwest Energy Consumers Group
Case No.:	ER-2012-0174
Date Testimony Prepared:	October 8, 2012

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** Tracking No. YE-2012-0404

Surrebuttal Testimony of

Nicholas L. Phillips

Revenue Requirement

On behalf of

Missouri Industrial Energy Consumers
and
Midwest Energy Consumers Group

NON-PROPRIETARY VERSION

October 8, 2012

BRUBAKER & ASSOCIATES, INC.

MISC/MEG Exhibit No. 403
Date 10-26-12 Reporter KF
File No. ER-2012-0174

Project 9593

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** Tracking No. YE-2012-0404

STATE OF MISSOURI)
) **SS**
COUNTY OF ST. LOUIS)

Affidavit of Nicholas L. Phillips

Nicholas L. Phillips, being first duly sworn, on his oath states:

1. My name is Nicholas L. Phillips. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by Missouri Industrial Energy Consumers and Midwest Energy Consumers Group in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2012-0174.

3. I hereby swear and affirm that the testimony is true and correct and that it shows the matters and things that they purport to show.

Nicholas L. Phillips

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

MARIA E. DECKER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis City
My Commission Expires: May 5, 2013
Commission # 09706793

Notary Public

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Surrebuttal Testimony of Nicholas L. Phillips

I. INTRODUCTION

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Nicholas L. Phillips. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q ARE YOU THE SAME NICHOLAS L. PHILLIPS WHO HAS PREVIOUSLY FILED DIRECT "REVENUE REQUIREMENT" TESTIMONY ON BEHALF OF THE MISSOURI INDUSTRIAL ENERGY CONSUMERS ("MIEC") AND MIDWEST ENERGY CONSUMERS GROUP ("MECG") IN THIS PROCEEDING?

A Yes.

Q WHAT IS THE SUBJECT OF YOUR SURREBUTTAL TESTIMONY?

A My surrebuttal testimony addresses the rebuttal testimony of Michael M. Schnitzer on behalf of Kansas City Power and Light Company ("KCPL" or "Company") regarding the following issues:

1. The update to the probabilistic analysis presented by Mr. Schnitzer.

2. Why the estimates of OSS margins presented in my direct testimony produce reasonable results compared to the unreasonable estimates offered by Mr. Schnitzer.

The fact that I do not address a particular issue raised by the Company or any other party in this proceeding should not be interpreted as approval of any position taken by the Company or any other party in this proceeding.

Q PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS.

A First, I conclude that the forward looking assumptions provided by KCPL to Mr. Schnitzer are fundamentally flawed and biased against the Missouri ratepayers. Second, the estimates of OSS margins based on normalized inputs, such as those used in my direct testimony, leads to the most reasonable and equitable results and as discussed by my colleague, Greg Meyer, provide for a proper matching of expenses, revenues and rate base. I recommend using the OSS margin calculations based on the RealTime production cost model utilizing normalized test year inputs, as presented in my direct testimony.

Q HAVE YOU UPDATED YOUR OSS MARGIN CALCULATIONS IN THIS TESTIMONY?

A No. I continue to believe that the OSS margin calculations in my direct are reasonable and appropriate for ratemaking purposes. I intend to review the reasonableness of the OSS margin calculations and fuel and purchased power expense prior to filing true-up testimony in this case.

Q PLEASE CLARIFY HOW YOU PROPOSE TO ESTABLISH THE APPROPRIATE LEVEL OF OSS MARGINS IN THIS CASE.

A Using the RealTime model, I have determined a normalized level of off-system sales. Consistent with the Commission's order in the last case, I have utilized consistent assumptions between the production cost model and the OSS model. Therefore, assumptions like firm load obligation, gas prices, electric prices and wind profile will be treated the same in both models. The use of consistent assumptions is consistent with historic Missouri ratemaking methodology, the test year concept and the doctrine of matching expenses, revenues and rate base. Please refer to the surrebuttal testimony of my colleague, Greg Meyer, for a discussion of the test year concept and prior Commission decisions as it relates to OSS margins.

Q HAS KCPL FOUND ISSUE WITH YOUR USE OF THE REALTIME MODEL?

A No. In my direct testimony, I demonstrated the RealTime model's ability to calculate a normalized level of fuel and purchased power expense as well as off-system sales. It appears, given this demonstration, KCPL has not refuted RealTime's ability to model fuel or off-system sales. Furthermore, as discussed in the surrebuttal testimony of Greg Meyer, KCPL also has not argued against MECG's proposal to set off-system sales at a normalized level and eliminate the OSS tracker. Given this, I believe that the entirety of the issue of off-system sales margins concerns the inputs used to generate the level of off-system sales margins to include in rates.

II. PROPOSED UPDATE TO OSS MARGIN CALCULATION

Q HAVE YOU REVIEWED THE REBUTTAL TESTIMONY, WORKPAPERS AND RELEVANT DATA RESPONSES REGARDING MR. SCHNITZER'S JUNE UPDATE TO HIS OSS MARGIN CALCULATION?

A Yes. Based on my review, I have two concerns with the analysis presented by Mr. Schnitzer.

1. Mr. Schnitzer continues to rely on KCPL's forecasted data, void of adjustments to reflect normal operating conditions.

2. The inputs and methodology used by Mr. Schnitzer are inconsistent from case-to-case and testimony-to-testimony.

Q PLEASE ENUMERATE YOUR CONCERNS WITH THE USE OF FORECASTED DATA, VOID OF ADJUSTMENTS TO REFLECT NORMAL OPERATING CONDITIONS.

A My concerns, as they relate to the use of forecasted data void of adjustments to reflect normal operating conditions, are as follows:

1. The input data that KCPL has directed Mr. Schnitzer to use in his analysis is without normalization adjustments, leading to outcomes that do not reflect normal operating conditions.

2. The methodological choice made by the Company to bifurcate its OSS margin calculation from its calculation of fuel and purchased power expense distorts a fundamental relationship between fuel expense, purchased power expense and off-system sales margins and creates outcomes biased against the Missouri ratepayer.

3. The Commission, in its order in the 2010 rate proceeding, explicitly expressed concerns which indicated serious fundamental flaws incorporated in the inputs KCPL provided to Mr. Schnitzer to use and the Company has failed to correct these flaws.

II-A.1. USE OF DATA WHICH DOES NOT REFLECT NORMAL OPERATING CONDITIONS

Q PLEASE EXPLAIN IN DETAIL YOUR CONCERN REGARDING THE USE OF INPUT DATA WHICH HAS NOT BEEN ADJUSTED TO REFLECT NORMAL OPERATING CONDITIONS.

A To begin with, neither I, nor my colleagues, are aware of any jurisdiction, Missouri or otherwise, that knowingly sets base rates without considering normalized data. Furthermore, without making the necessary normalization adjustments to the input data, the resulting outcomes lack foundation for the purposes of ratemaking. In setting rates, a test year, which has been adjusted to reflect the use of normalized levels of revenues and expenses, will reflect the most reasonable estimate of the Company's operations during the time the rates are to be in effect. Use of normalized operating levels eliminates unusual fluctuations that may occur during the test period. If such fluctuations were not corrected, rates could be set too high or too low. Once the normal level of costs are indentified and rates are established, management is assumed to operate the utility efficiently such that the random effects of inflation, productivity changes, and demand fluctuations, will, on average, tend to cancel out. In fact, Company witnesses Weisensee, Crawford and Blunk discuss the necessary normalization adjustments that should be made for the ratemaking process.

According to Mr. Weisensee,

> "We utilized a standard ratemaking process to determine the rate increase request. We used historical test year data from the financial books and records of the Company as the basis for operating revenues, operating expenses and rate base. We then adjusted the historical test year data to reflect: (i) normal levels of revenues and expenses that would have occurred during the test year; (ii) annualizations of certain revenues and expenses; (iii) amortizations of regulatory assets and liabilities; and (iv) known and measurable

changes that have been identified since the end of the historical test year."[1]

Section II of Mr. Crawford's direct testimony titled, "Purchased Power and Fuel Expense Normalization" gives a detailed description of how the inputs used in the MIDAS production cost model, unlike those for the Schnitzer OSS model, have been "properly" and "appropriately" normalized and annualized thus producing an accurate result by means of an accurate production cost modeling tool.[2]

Finally, Dr. McCollister's entire direct testimony focuses on the methods and reasons for weather normalizing the electric loads. He states:

> "Abnormal weather can increase or decrease a utility company's revenues, fuel costs, and rate of return. Therefore, revenues and expenses are typically adjusted to reflect normal weather when these are used to determine a company's future electric rates."[3]

Q HOW DO YOU KNOW THAT THE DATA KCPL PROVIDED MR. SCHNITZER FOR USE IN HIS OSS MARGIN CALCULATION HAVE NOT BEEN ADJUSTED TO REFLECT NORMAL OPERATING CONDITIONS?

A In response to MECG Data Request 19.14, the Company states:

> "Input data used by NorthBridge for OSS Margin estimation are forward looking estimates and are not normalized values from some historic period."

Q WHAT DO YOU CONCLUDE REGARDING THE COMPANY'S USE OF DATA WHICH IS INTENTIONALLY VOID OF NORMALIZATION ADJUSTMENTS?

A The use of input assumptions void of normalization adjustments is completely contradictory to the Company's own position that revenues and expenses should be

[1] Direct Testimony of John Weisensee at page 3.
[2] Direct Testimony of Burton Crawford at page 6.
[3] Direct Testimony of Dr. George McCollister at page 3.

normalized in the standard ratemaking process when used to determine a Company's future electric rates. As such, the OSS margin calculation based on input assumptions that are not proper for ratemaking purposes are flawed and should be rejected by the Commission.

II-A.2. METHODOLOGICAL PROBLEMS INTRODUCED AS A RESULT OF BIFURCATING OSS MARGIN CALCULATION

Q PLEASE EXPLAIN YOUR CONCERN THAT THE METHODOLOGICAL CHOICE MADE BY THE COMPANY TO BIFURCATE ITS OSS MARGIN CALCULATION FROM THE REST OF ITS CASE DISTORTS A FUNDAMENTAL RELATIONSHIP BETWEEN FUEL EXPENSE, PURCHASED POWER EXPENSE AND OFF-SYSTEM SALES MARGINS.

A In order to establish a reasonable level of OSS margins, great care must be taken to ensure there is a consistent relationship among fuel expense, purchased power expense and OSS margins. OSS margins represent net revenues, that is revenues less associated expenses, generated as a result of selling energy off-system. The ability to sell energy off-system is secondary to satisfying firm load obligations. In other words, the energy sold off-system must either come from generating units with available generating capacity (or from purchased power) after all firm load obligations have been met. On the surface, Mr. Schnitzer would have you believe this is exactly what he has done in his analysis; however, in actuality, this could not be any further from the truth.

Q PLEASE EXPLAIN IN DETAIL HOW MR. SCHNITZER'S ANALYSIS HAS DISTORTED THE FUNDAMENTAL RELATIONSHIP AMONG FUEL EXPENSE, PURCHASED POWER EXPENSE AND OSS MARGINS.

A In the simplest of terms, Mr. Schnitzer has ignored the proper sources of generation available to make off-system sales. The process of bifurcating the OSS margin calculation from fuel and purchased power expense ignores the most fundamental principle regarding off-system sales: the sales MUST come from generating or purchased power capacity available after satisfying firm load obligations. However, utilizing Mr. Schnitzer's forward looking approach ignores the juxtaposition of resources available to make off-system sales after satisfying the native load and firm sales obligations used as billing determinants for setting base rates, and substitutes a relationship decoupled from the parameters used for all other calculations in this case. In other words, he fails to ensure that the sources of generation used to make energy sales off-system in his model are the same generation sources that have available generating capacity after satisfying the native load and firm sales obligations in the Company's MIDAS normalized test year production cost run. Given that his forward looking estimate includes firm load obligations greater than those used in the normalized test year production cost run, his model assumes that there is less available generating capacity to make off-system sales thereby artificially lowering the projected OSS margins. In its Report and Order in the last case, the Commission expressly criticized KCPL's use of a firm load obligation that did not match that used in the production cost model. This creates a bias against the Missouri ratepayer.

Q MR. SCHNITZER DESCRIBES DIFFERENT POSITIVE AND NEGATIVE EFFECTS ASSOCIATED WITH HIS JUNE UPDATE. DO YOU HAVE ANY CONCERN IN THIS REGARD?

A Yes. I have concerns with one of the positive inputs, the lead-time, as well as each of the negative impacts.

Q WHAT IS LEAD-TIME, AS DEFINED BY THE COMPANY?

A The lead-time is described by the Company as follows:

> "Mr. Schnitzer's analysis utilizes databases of multipliers that reflect uncertainty around a forecasted value for a future period from the perspective of a defined forecast date. The "Lead Time" in this context refers to the amount of time between the date of the forecast (e.g., June 2012) and the date of the start of the relevant delivery period (e.g., January 2013)."[4]

Q DO YOU AGREE WITH THIS DESCRIPTION?

A In part, I do. I would like to expand on the description. More specifically, the lead-time is associated with the uncertainty surrounding the duration of time between the date the forecast is conducted and the period being forecast. In particular, the statistical model utilized in the forecast increases volatility solely due to the choice of the Company's forecast period of OSS margins based on future expectations (2013). In much the same way, the forecast for weather that is two months in the future is likely to be much more volatile than the forecast of weather for tomorrow.

Q DO YOU HAVE A CONCERN IN THIS REGARD?

A Yes. This methodology will create a wider spread in the resulting distribution because the Company is using a forward looking estimate. Had this forecast been

[4]Response to MECG Data Request 19.17.

conducted on December 31, 2012 (immediately before the effective dates of rates), the extra volatility would not be present, and due to the skew in the distribution, reduced volatility would ultimately result in a higher 50th percentile in terms of OSS Margin. The same would also be true for the 25th and 40th percentile. This is inequitable to ratepayers. Furthermore, such a bias would not be present if KCPL utilized the NorthBridge model based upon normalized test year assumptions.

Q PLEASE SUMMARIZE THE FIVE NEGATIVE EFFECTS DESCRIBED BY MR. SCHNITZER.

A Mr. Schnitzer describes five inputs which have caused a decrease in OSS Margin based on his analysis. They are volatility parameters, forced outage rates, fuel and allowance costs, planned outages and electricity prices.

Q PLEASE DESCRIBE YOUR CONCERNS WITH THE VOLATILITY PARAMETERS.

A The cause of the change in volatility parameters is somewhat unknown. Mr. Schnitzer has added some historical data used to estimate the historical volatilities; however, there has also been a change made to the Parameter Estimator model which determines the volatilities. Mr. Schnitzer failed to discuss this change and the Company has objected to release any documents which would indicate the nature of the change. Specifically, KCPL indicated that such information is not relevant and that NorthBridge does not keep documentation of changes it makes to the models framework.[5] Without knowing exactly what changes were made to the model, it is impossible to know whether the resulting reduction in OSS margins is a result of the

[5]Company objected to responding to MECG's Data Request 22.6.

additional historical data or as a result of the changes made to the model. I will discuss this in greater detail later in my testimony.

Q PLEASE DESCRIBE YOUR CONCERN WITH THE FORCED OUTAGE RATES.

A The forced outage rates that KCPL has provided for use in the Schnitzer analysis in his rebuttal testimony have increased over those utilized in the direct testimony. However, the Company offers no explanation for the increase. Again, this brings about questions regarding the nature of the assumption. From my review, it appears that the increases actually fixes an oversight in the Company's OSS calculation filed in direct testimony whereby a number of generating units did not have forced outage rate assumptions input originally. My concern is that this problem could easily have been avoided had consistent inputs been used for the determination of OSS margins and fuel and purchased power expense, especially if the calculations were all performed using the same model, such as RealTime or MIDAS.

Q PLEASE DESCRIBE YOUR CONCERN WITH THE PLANNED OUTAGE SCHEDULE.

A The planned outage schedule has also changed, increasing the planned outage hours modeled. This is one of the input assumptions explicitly addressed in the Commission's 2010 order. The most significant change is that the Company did not have a planned outage for the Wolf Creek nuclear generating facility in its OSS margin calculation filed in direct testimony; however, there is a planned outage modeled in the rebuttal calculation of OSS margin. Yet when compared to the Company's actual planned outage schedule received in response to Staff's Data Request 42, this planned outage does not actually exist. The Company has cited that

between its direct and rebuttal filings that it has rescheduled this refueling outage however, the Company when asked to provide a detailed explanation and documentation regarding the reason why, the only information provided was a statement that changes had been made.[6] No support was offered which indicated why the refueling outage was able to be delayed. Furthermore, the typical refueling outage occurs every 18 months. This refuel outage will now be approximately 21 months since the previous refueling. It would be inappropriate to allow the full duration of this outage to be modeled when the annualized duration for fuel expense purposes will be 2/3 or less than that of the full refueling duration. The result of increasing the planned outage hours modeled only could decrease the OSS margins.

Q PLEASE DESCRIBE YOUR CONCERN WITH THE ELECTRICITY PRICES.

A There appears to be serious problems with the electric market price forecasts utilized in the Schnitzer analysis. As Mr. Crawford points out in Section I of his direct testimony, the Company uses the MIDAS model to generate regional market prices based on marginal cost for most of the Eastern Interconnect, subject to inter-regional power flow constraints. The Model uses a large input dataset called the National Database, provided by Ventyx. Mr. Crawford at page 5 of his direct testimony states that:

> "The power price forecasts are relatively accurate when the fuel price forecasts are accurate, more specifically, when the natural gas price forecast is accurate. Natural gas is the marginal fuel in North SPP more than 50% of the hours in a year, so there is a strong correlation between natural gas and power in those hours."

The correlation that Mr. Crawford refers to is the tendency for electricity prices and natural gas prices to exhibit similar behavior, that is, increases in the price of

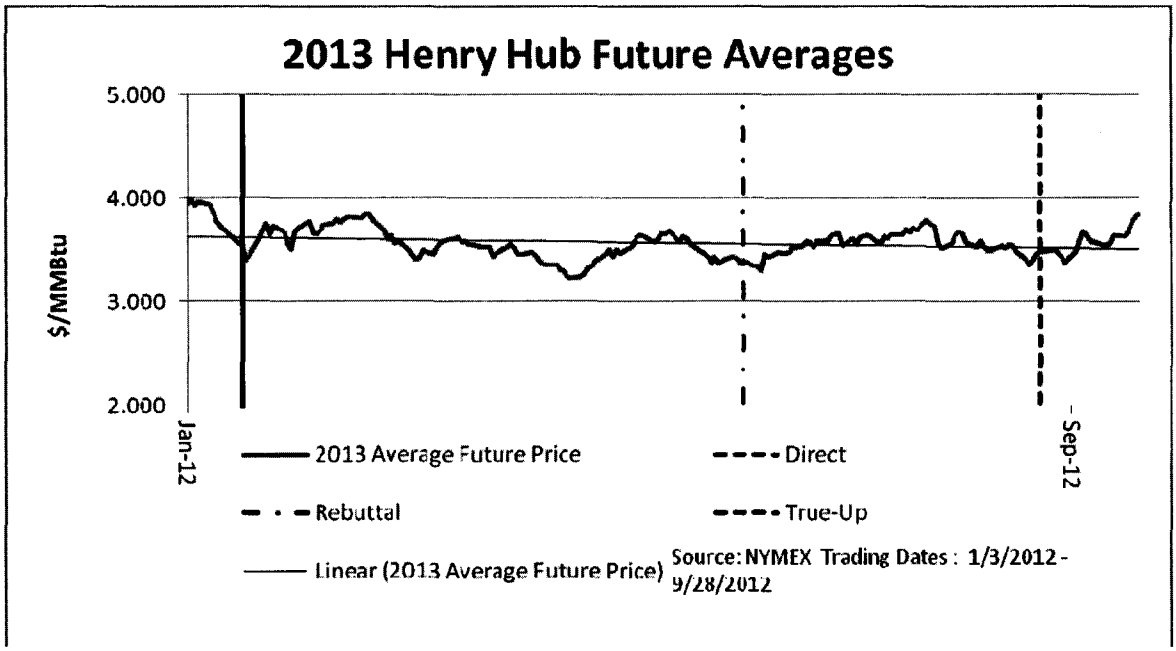
[6]Response to MECG Data Request 22.18.

natural gas should synchronize with increases in electricity prices. Correspondingly, the same would hold true for a decrease in natural gas prices.

However, the resulting electricity price forecasts generated by MIDAS do not exhibit this behavior. The average gas price used to generate the electricity price forecasts used by Mr. Crawford for purposes of calculating fuel and purchased power expense was $3.1255 /MMBtu. The resulting electricity prices were $30.31 /MWh Around-The-Clock ("ATC"). The forecasted gas prices used to forecast electric market prices for the OSS margin calculation were $3.698 /MMBtu and $3.402 /MMBtu for the respective direct and rebuttal calculations. In turn, these gas prices yielded electric energy forecasts of $28.01 /MWh and $26.79 /MWh ATC, respectively.

Effectively, while KCPL is using a higher gas price in the OSS model, the electric market price is lower than in the production cost model. This is contrary to Mr. Crawford's assertion that there is a strong correlation between the power prices in SPP North and the price of natural gas. Figure NLP-1 below presents a chart of the calendar year 2013 average future gas prices by trading day. As you can see there is some day-to-day variation but the trend over time is virtually flat. Given the flat forward natural gas curve, there is no basis for the large decrease in energy prices between KCPL's direct and rebuttal cases. I believe there to be serious fundamental flaws in the electricity price forecasts used for the OSS margin calculation and the only possible outcome of using these depressed electricity prices is a reduction in OSS margins.

FIGURE NLP-1



II-A.3. COMMISSION CONCERNS WITH INPUTS WHICH HAVE NOT BEEN CORRECTED

Q PLEASE EXPLAIN YOUR CONCERN THAT THE COMMISSION, IN ITS ORDER IN THE 2010 RATE PROCEEDING, EXPLICITLY FOUND FUNDAMENTAL FLAWS INCORPORATED IN THE INPUTS KCPL DIRECTED MR. SCHNITZER TO USE AND THAT KCPL HAS FAILED TO CORRECT THESE FLAWS.

A In its order in the 2010 rate proceeding, the Commission expressed two concerns with inputs provided by KCPL to Mr. Schnitzer for use in his model. The first dealt with assuming an inflated level of planned outages.[7] The second, which was admitted by KCPL, concerned inflated firm load obligations.[8] Both of these issues are present again in this case and the result of these inflated assumptions is a reduction in OSS margins.

[7] 2010 Commission Order, Case No. ER-2010-0355, paragraph 403.
[8] 2010 Commission Order, Case No. ER-2010-0355, paragraph 404.

Specifically, through its failure to match the firm load obligation in the OSS model to the normalized firm load obligation in the production cost model, KCPL has understated its OSS margins. Similar problems exist with other assumptions. For instance, gas prices, electricity prices, as well as forced and planned outage rates are all different between the OSS margin analysis and the production cost modeling. Therefore, the Commission's criticisms expressed in its last Report and Order are equally applicable to KCPL's OSS analysis in this case.

II-A.4. RECOMMENDATION

Q WHAT DO YOU RECOMMEND GIVEN YOUR CONCERNS WITH THE METHODOLOGICAL PROBLEMS WITH THE BIFURCATION OF THE OSS MODEL?

A I recommend that the Commission order that consistent inputs be used for the determination of fuel expense, purchased power expense and OSS margins, in particular, I recommend using the standard Missouri practice based on a normalized historical test year.

II-B. INCONSISTENT APPLICATION OF THE PROBABILISTIC MODEL

Q DO YOU HAVE ANY CONCERNS WITH THE METHODOLOGY USED BY MR. SCHNITZER?

A Yes. On the surface, it may seem as though NorthBridge has used a consistent methodology in its probabilistic analysis since its introduction in the 2006 rate case. However, beneath the surface, there are many moving parts. By the Company's own admission:

"All of the models and tools that were used in the 2006, 2007 and 2009 rate cases were distinctly different from those used in the 2010 rate case and in this case, Case No. ER-2012-0174."[9]

Even within the same case, assumptions which would be expected to remain consistent are changing such as the forced outage rates, planned outage schedule, as well as starting points for the historical data used to develop the volatilities and correlations.

The Company further stated:

"The starting point for historical load data in the 2010 rate case was 1993."

While this case is only two years removed from the previous case, NorthBridge has moved the starting point for historical load data from 1993 to 2002. The Parameter Estimator used in the 2010 rate case also utilized historical data for spot coal prices beginning in 2006, for NOx prices beginning in 2004, and for SOx prices beginning in 2004. These variables were not modeled stochastically in the pending case, so no historical data was used.[10]

The reason for and benefits underlying these changes are not explained by KCPL. When asked to provide backup supporting their contention that these changes did not substantially augment the statistical calculations, the Company did not provide any quantifiable evidence. Rather, it merely stated:

"When determining the period and frequency of historical data to use as inputs to the Parameter Estimator™, NorthBridge balances the benefits of using more extensive historical data against the computational demands that result from excessively large datasets."[11]

The bottom line is that the process used by the Company is constantly being altered without a clear and transparent discussion by the Company of the changes

[9]Company's response to MECG Data Request 19.9.
[10]Company's response to MECG Data Request 19.9.
[11]Company's response to MECG Data Request 22.9.

and resulting consequences of these changes. It also should be noted the Company refused to provide any information regarding the methods used prior to the 2010 case.

Q ARE YOU ABLE TO DETERMINE THE CHRONOLOGY OF ALL THE INCONSISTENCIES THROUGHOUT NORTHBRIDGE MODEL?

A No. While the Company admits to changes in the model methodology and input assumptions, it has refused to provide responses to data requests submitted by MECG that attempted to discover this information, and NorthBridge does not keep records of the changes made to their model or their input methodology used to determine the estimates of historical correlations and volatilities.

Q BASED ON YOUR READING OF MR. SCHNITZER'S REBUTTAL TESTIMONY, DID YOU ANTICIPATE ANY CHANGES IN THE MODEL FRAMEWORK?

A No. However, after reviewing the supplemental workpapers to his testimony, the model has changed, yet he made no attempt to inform the Commission that the model had changed, or the reason for the change.

Q HOW DO YOU KNOW THE MODEL ITSELF HAS CHANGED?

A The filename indicates a version number of the parameter solver used by Parameter Estimator. The version number has changed, indicating an update to the model framework itself, not just the input assumptions.

Q IS THIS THE ONLY INSTANCE WHEN THE MODEL FRAMEWORK HAS CHANGED WITHIN THE SAME RATE CASE?

A No. In the 2010 rate case, a similar situation occurred. There were version changes made to the Parameter Estimator software between the Direct filing and True-Up which were not discussed by the Company or disclosed to the parties. This was also evident due to the different version numbers of the Parameter Estimator model, which was provided in the Company's response to MECG Data Request 19-9S.

Q ARE THE CONSTANT ALTERATIONS TO THE NORTHBRIDGE MODEL THE ONLY DIFFICULTY WITH REGARD TO TRANSPARENCY?

A No. The entire process of bifurcating the OSS model from the production cost model creates an inherently difficult process to audit, even if the Company were transparent regarding the methodology. However, the Company has been uncooperative to deal with in this regard, objecting and refusing to provide information surrounding the alterations of the model and the input methodology.

Q IS THIS LEVEL OF COMPLEXITY NECESSARY IN ORDER TO ASSESS THE RISK ASSOCIATED WITH OSS?

A No. On the contrary, the outcome of Mr. Schnitzer's analysis at the end of the day is a single number selected in the form of a percentile from his probability distribution. However, the results are only as good as his model, which is continuously changing, his assumptions which are continuously changing and are not reflective of normal operations.

Furthermore, as my colleague, James Dauphinais, testified:

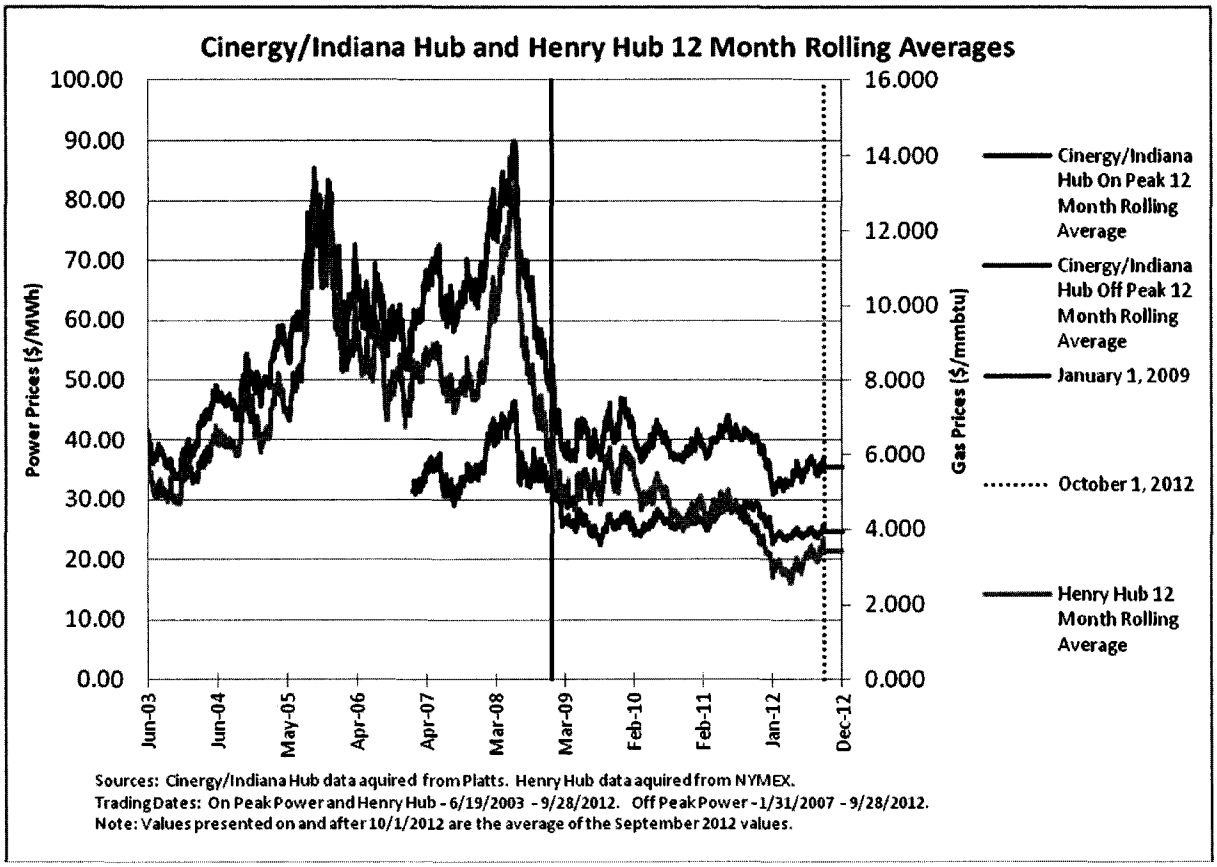
"Since 2009, the forward energy markets are much less volatile due to revolutionary breakthroughs in fracking and the use of horizontal

> drilling that, to date, have dramatically increased the availability of natural gas in this country and have led to, albeit a much lower and, to date, relatively stable wholesale market prices for natural gas and electric energy."[12]

This can be seen in Figure NLP-2 below. This plot shows a 12-month forward rolling average of futures prices for on-peak and off-peak electric energy as well as natural gas. The way this should be interpreted is the dates on the horizontal axis represent a trading date and the prices correspond to the average of the next 12 months of futures prices for the given trading date. As an example, if a price of $30.00 /MWh is seen on a trading date of 1/1/2009, this $30.00 /MWh price would reflect the average of the next 12 months (i.e., 2/2012-1/2013) of future electric energy prices as of that trading day. The stabilization of the forward markets since 2009 is easily identifiable.

[12]Surrebuttal Testimony of James R. Dauphinais, Ameren Missouri Rate Case No. ER-2012-0166 at page 3.

FIGURE NLP-2



Q PLEASE SUMMARIZE YOUR POSITION.

A Given the ever changing nature in the Company's methodology and its refusal to allow for an open and transparent analysis of this methodology, I recommend the Commission abandon the use of this unknown black box approach and order that the OSS margin component of base rates be calculated based on consistent normalized test year inputs namely those used to calculate fuel and purchased power expense. Further, I recommend that this calculation be performed in a production cost simulation using a model such as MIDAS or RealTime.

III. USE OF A SINGLE NORMALIZED TEST YEAR SIMULATION TO PRODUCE EQUITABLE OSS MARGIN RESULTS

Q PLEASE SUMMARIZE MR. SCHNITZER'S OPINIONS REGARDING THE USE OF NORMALIZED TEST YEAR INPUTS IN CONJUNCTION WITH A PRODUCTION COST MODEL SUCH AS REALTIME OR MIDAS, TO CALCULATE OSS MARGINS.

A Mr. Schnitzer opines that: (1) historical margins are not a good predictor of future margins;[13] and (2) the test year adjustments proposed by MIEC/MECG are particularly unreasonable and result in normalized test year margins that exceed actual test year margins by more than a factor of two.[14] He then expands on his second point later by adding that for the period from 2009 -2011 KCPL has only averaged *** *** in OSS margins and that my recommendation based on the normalized test year exceed the historical 3 year average by more than a factor of two.[15]

Q PLEASE ADDRESS MR. SCHNITZER'S TWO CONCERNS IN THIS REGARD.

A Mr. Schnitzer's first point is that, in his opinion, historical margins are not a good predictor of future margins. If you accept this theory, this would invalidate his second point. That is, the use of normalized test year inputs result in normalized margins that exceed the actual margins in the historical test year because by his own words, historical margins are not a good predictor of future margins. This is just flawed circular logic. If you accept his second point, then his reasons for wanting to use a forward looking analysis become invalid because it creates a relationship between historical and future margin. If you consider historical data to contain useful

[13]Rebuttal Testimony of Michael Schnitzer at Page 4.
[14]Rebuttal Testimony of Michael Schnitzer at Page 4.
[15]Rebuttal Testimony of Michael Schnitzer at Page 14.

information about future events, then Mr. Schnitzer's point may seem to identify an error in my analysis; however, there is a fatal flaw overlooked by Mr. Schnitzer: he failed to recognize circumstances occurring in the test year were far from normal, hence the need for normalization of the inputs.

Q WHAT DO YOU MEAN THAT CIRCUMSTANCES IN THE TEST YEAR WERE "FAR FROM NORMAL?"

A Operating conditions over the last few years for KCPL have not reflected normal, representative operating conditions. The following list of events is not intended to be exhaustive of all non-normal events but rather is intended to highlight some of the major occurrences which contributed to the low OSS margin realizations:

1. Prior to August 2010, Iatan 2 was not online.
2. *** ***[16]
3. *** ***[17]
4. In the summer of 2012, there was a record breaking heat wave which drove native load demand greater than expected. Because margins from native load are higher than OSS margins, KCPL benefited from this heat wave. In the end, however, OSS margins in 2012 were simply displaced and took the form of native load margins.
5. *** ***[18]

All in all, the actual operating conditions that have occurred throughout the last few years have not been representative or "normal." Given this information, it should

[16]Direct Testimony of Michael Schnitzer at Page 30.
[17]Company's response to MECG Data Request 2.1.
[18]Company's response to MECG Data Request 2.1.

be of no surprise that KCPL has realized low OSS margins during this time; however, these abnormal conditions should not be recognized for ratemaking in this case.

Q HAS THE COMPANY PERFORMED A PRODUCTION COST RUN UTILIZING NORMALIZED TEST YEAR INPUTS IN ITS MIDAS MODEL?

A Yes. Although it never presented the results, in the Company's response to MECG Data Request 19.6, the resulting OSS margins calculated by MIDAS using the same assumptions as I used in my RealTime production cost run for the normalized test year are *** ***. This is actually higher than my recommended level of OSS margins *** ***.

Q HAS THE COMMISSION STAFF EVER FILED TESTIMONY REGARDING THE USE OF NORMALIZED TEST YEAR INPUTS IN CONJUNCTION WITH THE NORTHBRIDGE MODEL?

A Yes. In Case No. ER-2009-0089, Dr. Michael Proctor filed testimony recommending the use of normalized test year electricity prices along with consistent gas prices[19] and noted that whether test-year or forecasted prices are used, the distribution of margins can still be developed using NorthBridge's model.[20] However, since the 2009 case was settled, the Commission never had a chance to hear these arguments.

[19]Rebuttal Testimony of Dr. Michael Proctor Case No ER-2009-0089 at pages 7-8.
[20]Rebuttal Testimony of Dr. Michael Proctor Case No ER-2009-0089 at page 6.

Q DO YOU AGREE WITH MR. SCHNITZER'S CHARACTERIZATION THAT THE INPUTS YOU USED IN YOUR SECOND APPROACH DO NOT, NOR WERE INTENDED TO, REFLECT EXPECTATIONS ABOUT A FUTURE PERIOD?

A No. The way I interpret Mr. Schnitzer's statement is with reference to a specific future period. My analysis, unlike Mr. Schnitzer's, does not result in outcomes relative to a specific future period. This may have been a reasonable approach during the Experimental Regulatory Plan framework when KCPL was required to file rate cases subject to a schedule set by the Commission. Under this scenario, the duration rates would be in effect was known and, therefore, posed smaller risk to the ratepayers if the Commission set the level of OSS margins too low. However, that is not the case today. Today, there is no set future schedule for rate case filing, which raises the risk to ratepayers if the Commission gets the level of OSS margin too low. There is no deadline on how long the rates will be in effect, therefore, it would be imprudent to have OSS margin components of rates based on the expectations for a single year. Furthermore, the risk for KCPL is diminished, both in terms of volatility in the market as well as the percentage of OSS margins that make up KCPL's earnings.[21]

IV. CONCLUSION AND RECOMMENDATIONS

Q PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS.

A First, the forward loading estimates presented by Mr. Schnitzer are fundamentally flawed and biased against the Missouri ratepayers. Second, the estimates of OSS margins based on normalized inputs leads to the most reasonable and equitable results.

[21]Commission Order 2010, Case No. ER-2010-0355, paragraph 394.

I recommend using the OSS margin calculations, based on the RealTime production cost model run utilizing normalized test year inputs, as presented in my direct testimony. Should the Commission decide that the risk to KCPL still justifies the use of a probabilistic OSS margin calculation, I recommend that the Commission use Mr. Schnitzer's model in conjunction with the same normalized test year inputs as those used for the purpose of determining a normalized level of native load fuel and purchased power expense.

Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A Yes.

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