BEFORE THE PUBLIC SERVICE COMMISSION
STATE OF MISSOURI

In the Matter of a Working Docket to Address the Hedging Practices of Electric Utilities used to Mitigate the Rising Costs of Fuel	)))	File No. EW-2013-0101

KANSAS CITY POWER & LIGHT COMPANY ANDKCP&L GREATER MISSOURI OPERATIONS COMPANY'S RESPONSE TO STAFF'S QUESTIONS

COME NOW Kansas City Power & Light Company ("KCP&L") and KCP&L Greater Missouri operations Company ("GMO") and hereby submits responses to the Missouri Public Service Commission ("MPSC" or "Commission") Staff's ("Staff") questions filed on May 31, 2013.

1. **What market conditions support hedging fuel and purchase power?**

   Answer:
   Uncertainty regarding market prices in the future creates risk and exposes a market participant to unpredictable costs. Hedging attempts to limit or prevent that fluctuation in costs.

2. **What market conditions support not hedging fuel and purchased power?**

   Answer:
   If market prices for all future periods were known and fixed there would be no uncertainty creating market price risk. Since market prices for all future periods are not known and fixed, there is little or no support for not hedging. However, there may be times when the fuel or power market risk exposure is such a small percentage of the overall fuel and purchased power costs, the hedger may determine that the exposure does not justify the cost of administering a hedge program.

3. **Do electric utility customers place a value on less volatile fuel and purchased power prices? How should electric utilities determine that value?**

   Answer:
   Yes, but as noted in the *Joint Report on Natural Gas Market Conditions, PGA Rates, Customer Bills & Hedging Efforts of Missouri's Natural Gas Local Distribution Companies* issued February 24, 2006 in Case No. GW-2006-0110, "Hedging strategies that obtain price certainty in lieu of price variability may not result in the lowest costs."

   At this time, KCP&L and GMO are not advocating a particular means of determining its customer's perceived value of less volatility in fuel and power prices.

4. **How should utilities develop and use fuel and purchased power price forecasts in determining a hedging strategy?**

Answer:
The purpose of hedging is to mitigate market price risk. Price forecasts may play a role in timing the placement or removal of a hedge. The greater that role, the more the transaction resembles a speculative move guided by a market view rather than a hedge mitigating market price risk.

Physical supply-demand fundamentals and triggers such as weather and geopolitical events tend to impact prices in the short-term. It is the short-term price inelasticity of energy combined with one or more of those triggers that typically causes price spikes and volatility that hedgers are trying to avoid. Long-term prices on the other hand are governed by market fundamentals. That is, long-term energy prices are determined by the expected average relationship of supply and demand in the future.

Price forecasts beyond the current season typically are governed by the forecaster's view of market fundamentals especially their view on the long-term marginal cost of supplying the energy. While forecasters may identify potential triggers, rarely do they accurately predict the timing or impact of a trigger. For example, Hurricanes Katrina and Rita caused the price of natural gas to climb from about $7.30/MMBtu to $15.40 in the second half of 2005. That price run-up was not forecast prior to Katrina's formation on August 23, 2005. By the time it was included in forecasts, it was too late to assist a hedger trying to avoid high prices. Likewise in the first half of 2008 natural gas prices were not forecasted to jump from about $7.70 to $13.60 when they were pulled up by oil prices which were driven up by complex geopolitical events.

5. **What impact does a fuel adjustment clause have on mitigating fuel and purchased power price volatility for customers, and on a company's cash flow?**

Answer:
That depends on the design of the fuel adjustment clause (FAC). A FAC that periodically adjusts rates to reflect increases and decreases in incurred costs mitigates price volatility for customers by amortizing the volatility experienced through the accumulation period over the recovery period. The longer the accumulation and recovery periods, the greater the reduction in volatility for the customers. On the other hand, the longer the accumulation period and recovery period, the greater the impact on a company's cash flow as it floats the spread between costs incurred and costs recovered. A FAC that tracks costs closely will reflect the actual cost of providing fuel and purchased power costs to customers at the time the costs are incurred and have a lesser impact on cash flows. Even though a FAC can mitigate volatility experienced during the accumulation period, it does not mitigate upward price movement. A hedge program can mitigate upward price movement and delay upward market shifts.

6. What are the different hedging tools available to electric utilities, and what are the costs and benefits of each tool? For each tool identified, what fuel and purchased power market conditions support its use?

Answer:

Hedging tool	Costs and benefits	Market conditions supporting usage
Natural gas storage	Costs: Losses during injection and withdrawal, storage fees, financial cost to carry natural gas inventory. May be limitations on injection or withdrawal timelines. Benefits: Storage serves as a fixed price physical hedge. Provides flexibility in handling supply portfolio.	Delivery is required.
Fixed price contracts	Costs: Risk of being "above the market" when gas is delivered. Risk of counterparty failure such as nondelivery. Illiquidity limits ability to accommodate volume variances. Full credit risk. Benefits: Provides price certainty. Price can be set for specific delivery point thereby managing basis risk.	Uncertain future prices.
Call options	Costs: Premiums which can be expensive. Benefits: Limits an adverse price move without limiting opportunity to capture advantageous price move.	Uncertain future prices.

Hedging tool	Costs and benefits	Market conditions supporting usage
Collars	Collars are constructed by the combination of a call and put option. Costs: Risk of put option strike (collar floor price) being "above the market" when gas is delivered. Less price protection than fixed price instruments. Benefits: Cost of call option premium is offset by premium from sale of put option.	Uncertain future prices.
Outsourcing agreements		
Futures contracts	Futures contracts are a type of fixed price contracts. Costs: Risk of being "above the market" when gas is delivered. Small transaction charge. Financial costs of maintaining margin account. Benefits: Very liquid market. Low transaction cost. Minimal credit risk. Price transparency.	Uncertain future prices.
Financial swaps and options from OTC market	Provides protection similar to a futures contract or option but without a requirement to maintain a margin account. Costs: Risk of being "above the market" when gas is delivered. Illiquidity limits ability to accommodate reductions in volume. Full credit risk. Benefits: Counterparty may be willing to set price for specific delivery point that manages basis risk.	Uncertain future prices.

Hedging tool	Costs and benefits	Market conditions supporting usage
Other tools		
Cross hedging	Natural gas futures contracts or options are used to hedge electricity price risk. Costs: Risk of being "above the market" when power is delivered. Option premiums, if options are used. Small transaction charge. Financial costs of maintaining margin account. Benefits: Very liquid market. Low transaction cost. Minimal credit risk. Price transparency.	No active futures trading in underlying market being hedged.

7. How should electric utilities and state utility regulators measure the effectiveness of a hedging strategy?

Answer:
Hedge effectiveness is the extent to which changes in the fair value or cash flows of the hedging instrument offset the changes in the fair value or cash flows of the hedged item. That offset effectively reduces price volatility for the hedger. The prospective hedge effectiveness test is a forward-looking evaluation of whether or not the changes in the fair value or cash flows of the hedging item are *expected* to be effective in offsetting the changes in the fair value or cash flows of the hedged item thereby reducing volatility over the term of the relationship. The retrospective hedge effectiveness test is a backward-looking evaluation of whether the changes in the fair value or cash flows of the hedged item *have been* effective in offsetting changes in the fair value or cash flows thereby reducing the volatility of the hedged item.

In evaluating prudence, the forward-looking evaluation is most relevant because it is consistent with the principle that "the company's conduct should be judged by asking whether the conduct was reasonable at the time, under all the circumstances, considering that the company had to solve its problem prospectively rather than in reliance on hindsight."

8. Should utilities use generally accepted accounting principles (GAAP) in measuring the results of their hedging strategies (from both an operational perspective and a financial reporting perspective)? Why or why not?

Answer:
The U.S. Securities and Exchange Commission (SEC) requires publicly traded companies and other regulated companies to follow GAAP for financial reporting. Publicly held utilities use generally accepted accounting principles in measuring and recording hedge effectiveness so their financials are comparable and understandable to investors, creditors and others making investment, credit and other financial decisions related to the company.

9. What measured/measurable benefits should customers receive from a utility's hedging strategy?

Answer:
When both the physical and the derivative side of the hedge are considered together, volatility should be lower for the fuel or power hedged. Hedging strategies which mitigate volatility may not result in the lowest cost for the fuel or power hedged.

10. Should utilities have a budget for their hedging programs? Why, or why not?

Answer:
That depends on what the budget represents and how the budget is used. For example, a hedge cost budget can enable the use of options because there is allowance for option premiums. If the lack of a hedge cost budget is treated like a zero budget it can limit the use of options.

A hedge cost budget which is seen as a constraint can act as a disincentive for placing prudent hedges in a volatile market. The Black-Sholes option pricing model helps explain how a hedge cost budget can compromise the value of a hedge program. Option premiums are a function of: current underlying price, time until expiration, risk-free interest rate, and volatility. All other things being equal, as volatility increases option premiums increase. That is, as market price uncertainty, which was the reason for hedging, increases the cost of hedging increases. If a hedger is constrained by a hedge cost budget their hedge strategy would also be constrained to buy less protection against high prices or take on more risk of paying more than market should prices drop.

Another way hedge cost budgets can compromise the value of a hedge program is by only looking at the gain/loss in the derivative account. A hedge is comprised of two opposite and equal transactions in both a physical and a derivative market. Only the gain or loss in the derivative market is typically reflected in the company's books. Consequently if there is a loss in the derivative side of a hedge a company with a hedge cost budget can be tempted (or forced) to exit a hedge in an untimely fashion.

11. How active should electric utilities be in changing hedging positions or strategy based on new market conditions and new information?

Answer:
Hedging is the process of protecting oneself against risk. Hedging employs various techniques but, basically, involves taking equal and opposite positions in two different markets as offsets to one another. The answer to changing hedge positions is strategy dependent. For example, a "buy and hold" strategy is consistent with hedging because a hedger has either the actual commodity in production or a commercial need to purchase the commodity. To unwind the hedge before the risk is past would increase the hedger's risk by taking back risk exposure that had been mitigated. While some successful hedge programs employ such a strategy, it must be recognized that the hedge protection is lost when unwinding early. Even with a "buy and hold" strategy new volume projections may necessitate adjusting the volumes hedged.

The need for changing the hedge strategy given changes in market conditions depends on the hedge strategy and the market conditions. Hedges are placed in the forward markets where prices are determined by the expected average relationship of supply and demand in the future. Spot market prices are based on the supply that is on hand right now and demand right now. A market event such as a pipeline disruption or river flood with a limited short-term impact may not materially affect the forward market. That market condition may not justify changing the hedge strategy. On the other hand, a geopolitical event such as carbon or fracking legislation may create a new normal thereby affecting the forward market and support changing the hedge strategy. The flexibility to make judgments and react to such market conditions can be an important component of some hedge programs.

12. How have changes in the natural gas market since 2009 affected the benefits, for both utilities and their customers, of hedging natural gas?

Answer:
Hedging still has the benefit of mitigating price volatility. Since 2009 natural gas prices have been lower than they had been since 2002. Since 2009, natural gas prices have not spiked to levels seen from 2000 through 2008. Consequently, the likelihood of a hedge resulting in a large payout is lower. Because the likelihood of such payouts is lower, the costs of hedging are also lower.

Fuel prices are volatile by nature. Long-term prices are typically driven by market fundamentals and compared to short-term prices appear stable. Volatility in short-term prices is driven by relatively sudden, unexpected (at least the timing is unknown) events.

Should electric utilities change or modify their strategy in response to changes in the natural gas market since 2009?

Answer:
That depends on their strategy. Almost by definition a hedging strategy is designed to deal with an uncertain market. Because it is designed for an uncertain market, it may be just as effective under a variety of market conditions.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I do hereby certify that a true and correct copy of the foregoing document has been hand-delivered, emailed or mailed, postage prepaid, this 3rd day of July, 2013 to all counsel of record in this case.

/s/ Roger W. Steiner

Roger W. Steiner