

**EW-2013-0101**  
**Staff Hedging Questions**  
**for Missouri Investor-Owned Electric Utilities**

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

Hedging stabilizes prices, protects customers from market volatility, and acts as a form of insurance against the unexpected movement of prices. The goals of a hedging program are the same regardless of current market conditions. Past volatility (whether high or low for a given historical period) is a poor indicator of future volatility.

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

To predict future market conditions and associated volatility with any certainty is unrealistic. Hedging decreases volatility. As such, all market conditions support hedging activities. The goals of a hedging program are the same regardless of current market conditions. As noted above, past volatility is a poor indicator of future volatility.

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

Customers appreciate steady and predictable rates. Like continuous reliability, the value of predictable rates to the customer is not quantitatively measurable. Ameren Missouri's electric rates are approximately 20 percent below the national average.

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

Utilities should develop fuel and purchased power price forecasts through market based observations. These forecasts, in combination with operational parameters (generation capabilities/cost, projected loads, etc.), provide a basis for projecting natural gas consumption for generation. This natural gas consumption is the target upon which hedges are placed. The amount of volatility reduction seen in a hedge plan is directly proportional to what percentage of this target is hedged.

**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?**

The fuel adjustment clause (FAC) allows a utility to more timely reflect a large percentage of changes (positive or negative) in fuel and purchase power costs, including associated transportation and net of off-system sales, through customers rates, without a traditional rate proceeding. While a fuel adjustment clause is not designed to be a volatility mitigation tool, in practice the mechanics of it (whereby changes in costs are reflected over eight (8) customer billing months), mitigates the potential impact of material FAC adjustments.

**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?**

The following hedging tools would be used to hedge in any market conditions. The costs and benefits of each hedging tool changes depending on market prices, market volatility, and time to expiration or delivery of each contract. Since there is no way to predict future market conditions, identifying which tool to use in specific market conditions is not advisable. The best scenario is to have a

diversified hedge plan through time or product. Most of the hedge tools listed below are available for both sales/revenue and cost of fuel sources.

Hedging Tool	Costs	Benefits
<b>Fixed Price Contracts</b>	Counterparty risk, Counterparty margining	Reduce price volatility by providing price certainty
<b>Sold Exchange Options<sup>1</sup></b>	Premium, Broker fees, Margining	Reduce price volatility to the extent the option is near or in-the-money
<b>Bought Exchange Options<sup>1</sup></b>	Premium, Broker fees, Margining	Reduce price volatility to the extent the option is near or in-the-money
<b>Sold OTC Options<sup>1</sup></b>	Premium, Broker fees, Counterparty margining	Reduce price volatility to the extent the option is near or in-the-money
<b>Bought OTC Options<sup>1</sup></b>	Premium, Broker Fees	Reduce price volatility to the extent the option is near or in-the-money
<b>Collars</b>	Net premium, Broker fees, Margining	Reduce price volatility to the extent the option is near or in-the-money
<b>Futures Contracts</b>	Broker fees, Margining	Reduce price volatility by providing price certainty
<b>Financial Swaps</b>	Broker fees, Counterparty margining	Reduce price volatility by offsetting an index position with a fixed price
<b>Natural Gas Storage</b>	Leasing Developmental	Meet volumetric forecast variations and reduce price volatility by providing generation fuel cost certainty
<b>Index Price Contracts</b>	Counterparty risk	Volumetric certainty to meet operational needs
<b>Swing Contracts</b>	Counterparty risk	Volumetric certainty to meet operational needs

<sup>1</sup>-High Volatility-Higher Premiums  
Low Volatility-Lower Premiums

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

Electric utilities and state utility regulators should measure the effectiveness of a hedging strategy in its ability to produce greater stability and predictability in rates through the reduction of volatility. The LDC rule states that utilities should take a prudent effort to mitigate the risk of upward price volatility and secure adequate supplies for their customers. This can be applied to electric utilities as well.

**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?**

No, utilities should not use GAAP in measuring the results of hedging strategies. GAAP has nothing to do with “measuring the effectiveness of” hedging. The purpose of GAAP is to insure the comparability and consistency of financial information that is relied on by investors and creditors. The only relationship between GAAP and hedging is that the financial impacts of hedging will be reported in a utility’s financial statements in accordance with GAAP.

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

Customers benefit from a reduction in price volatility, in particular a dampening of the effects of extreme price movements. As a result customers enjoy the benefit of relatively more stable and predictable rates than they would have enjoyed in absence of such hedging activity. Hedging does

not provide a means to reduce the expected price in and of itself. In fact, given that the purpose of hedging is to reduce risks by lowering exposure to price volatility, it should be expected to carry with it a premium just as other forms of insurance do.

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

It is appropriate for utilities to prepare budgets for all of their operations, taking into account existing hedge transactions and the fixed costs of administering such programs (including labor, IT systems costs, etc.). However, it would run contrary to the stated purpose of a hedging program to limit hedging activity to only that amount included in such budgets. Utilities should continue to monitor expenses to ensure that they are prudently incurred. Hedging activities should be further monitored to ensure compliance with the utilities' risk management policies.

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

Hedging positions are dynamic and require adjustments, in response to changes in market conditions and new information, when necessary to maintain compliance with guidelines reflecting prudent risk tolerances established by the utilities' risk management policies. A change in the selection of tools or the volumes of such tools used to implement the hedge strategy should not be construed as a change in the strategy itself. The overall strategy of reducing volatility should always remain the focus of any hedging program regardless of market conditions or changes in forecasted natural gas consumption.

**12. How have changes in the natural gas market since 2009 affected the benefits, for both utilities and their customers, of hedging natural gas? Should electric utilities change or modify their strategy in response to changes in the natural gas market since 2009?**

The changes in the natural gas market since 2009 have increased the liquidity of forward natural gas markets and, as market prices have fallen, increased the projected volumes of natural gas to be consumed as a fuel source for electric generation. As such, the benefits to consumers of reduced volatility in the price of this fuel source are magnified proportionally to this increase. As noted in question 11 above, it may be appropriate to adjust the volumes hedged in light of these changes in market conditions and projected natural gas consumption. However, it would not be appropriate to modify the overall strategy of reducing price volatility. The need for a reduction in price volatility continues to exist. Even with this reduction in price, the natural gas markets remain quite volatile at this time.