

# New Trends in Utility Hedging Programs



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*Within the last six to twelve months, there has been an emerging trend of utility commissions critically assessing utility hedging programs*

## CONCENTRIC CONTACTS

The “new world” of gas supply, brought about by shale development, the economic downturn and expanded gas infrastructure, has caused some parties to challenge utility gas supply hedging programs that had become a common feature of utility risk management practices. Regulatory commissions and utility stakeholders have challenged the merits of their utilities’ hedging programs with increasing frequency, questioning whether the risk mitigation benefits of hedging have justified the associated costs, and whether ratepayers are paying for insurance to manage a risk that may no longer exist. One ramification of this emerging trend is a greater degree of commission and stakeholder involvement in utility hedging programs. Another is that utility commissions are requiring written justification of the utilities’ hedging programs, or in some cases, suspending risk management hedging programs indefinitely. Oftentimes, these actions have been spurred by concerns raised by commission staff or other stakeholders relating to the “cost” of utility hedging programs.

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This shift toward re-assessing hedging practices is relatively recent. In 2008, a survey conducted by the National Regulatory Research Institute (“NRRI”) indicated that most commissions in the US supported or were neutral to hedging.<sup>1</sup> This was reinforced in a follow-up survey the AGA conducted in 2009,<sup>2</sup> to which over 100 parties replied. Of those, over 90% said their commissions allowed financial hedging of commodity price risk; however, only a very small portion *required* utilities to engage in financial hedging.

Regulatory commissions generally accept that the goal of hedging is price stability and not “to beat the market.” Regulators also understand that hedging has inherent costs and do not expect their utilities to be in the business of speculating on the direction of market prices. But, there has been a tendency on the part of regulators and stakeholders to take a retrospective view when evaluating the efficacy of hedging programs. Recent high market prices and market volatility in the period from 2007-2009 limited what utilities could do to hedge risk. But, a forward-looking analysis would indicate there are unique opportunities today for utilities to hedge more for the same cost or to continue with similar coverage at much lower cost. History has repeatedly shown that commodity market conditions are never stagnant, and that markets often correct as supply and demand factors re-balance. Current market conditions could well be the hiatus before the next storm, with forward markets providing opportunities for utilities to lock in low insurance costs for customers.

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<sup>1</sup> National Regulatory Research Institute. “NRRI Services: Survey on State Commission and Local Gas Distribution Company Actions in Addressing High Natural Gas Prices” (July 3, 2008)

<sup>2</sup> McDowell, Bruce. “AGA Rate Inquiry: Regulatory Hedging Policies.” American Gas Association (Fall 2009)

*Cost concerns, coupled with a view that gas prices are going to stay low, are prompting hedging program reviews*

In an environment where utility customers are experiencing across the board rate increases related to infrastructure investments to maintain system reliability, it is not surprising that stakeholders would look for other levers to reduce costs for customers. Hedging costs may stand out to some as discretionary costs, and a look-back analysis of market prices illustrates that low price volatility and declining prices since 2009 have resulted in many hedges being executed at levels higher than where spot market prices settled. This has given rise to the question of whether previous hedging practices to insure against rising wholesale market prices are appropriate in current market conditions. Commissions evaluating the cost impact on customers have an obligation to ask if there are other ways to manage price volatility.

*The practice of looking-back to assess hedging program efficacy raises some important issues*

Hedging serves as a tool to stabilize prices, protect customers from market volatility, and acts as a form of insurance against unexpected price spikes. Further, the concept of “least cost”, raised by some stakeholders in hedging program critiques, is a concept that must be approached carefully. One must use care in translating the “Least cost” principle to hedging, where there are trade-offs in risk, reward, and costs, depending upon the hedging instrument. Using the analogy of insurance, it is possible to buy an inexpensive policy where the premium is low, but this is usually accomplished by increasing the deductible, placing a cap on the total payout, and/or carving out conditions under which the insurance is not paid. Additionally, different hedging strategies yield different benefits, depending upon market price direction. For example, if a utility is purchasing energy in a rising market, a fixed price purchase may be optimal as there is no option payment incurred and the coverage starts immediately. In a range-bound market, a costless collar may be the lowest cost of insurance, and in a declining market, a cap at a relatively high strike may be the most attractive form of hedge protection.

A review of comments filed by commission staff and other stakeholders shows that shale gas development is repeatedly referred to as a “game changing” technology. Shale gas producers access prolific geological deposits of reserves for production at relatively low costs, which has led to significantly dampened price volatility and lower market prices. What is sometimes overlooked but is of equal importance is that new pipeline infrastructure has served to deliver shale gas supplies into what have historically been transportation constrained end-markets, thereby changing traditional basis pricing relationships and further contributing to lower price volatility. Additionally, new LNG import facilities and expansions in natural gas storage capacity in recent years have contributed to expanded supply capacity. On the demand side, increasing energy efficiency measures and declining demand resulting from weak economic conditions have dampened consumption.

Against this market backdrop, many stakeholders encourage utilities to adapt their hedging practices to the current market supply and pricing paradigm. Some stakeholders have suggested utility hedging be reduced until such time as gas market prices show some sign of rallying. Others are taking a more proactive stance, encouraging longer-dated hedging and new hedge program design.

### *Several commissions have suspended utility hedging programs*

Two commissions that have recently suspended hedging activities are the Public Utilities Commission of Nevada (December 2010) with respect to Nevada Power Company and the British Columbia Utilities Commission (July 2011) in regard to FortisBC. There were no disallowances of previously executed hedge transactions, and existing hedges were allowed to remain in place. The decisions applied to future hedging activity.

In the December 8, 2010 Order (Docket No. 10-09003), the Public Utilities Commission of Nevada approved a Stipulation that included the requirement that Nevada Power Company not proceed with any additional financial gas hedges. However, the utility was told it should continue to review natural gas hedging in light of prevailing market fundamentals and conditions.<sup>3</sup> More recently, on July 22, 2011, the British Columbia Utilities Commission rejected FortisBC's Price Risk Management Plan. In the Order, the Commission Panel wrote: "in light of the recent exploitation of shale gas, the likelihood for more stable natural gas prices is significantly greater and the risk of dramatically higher natural gas prices, excepting short periods of price disconnects, is significantly lower than it has been in many years."<sup>4</sup> Further, the British Columbia Utilities Commission Panel suggested that hedging was not the best way to deal with the potential for price increases, but commented that if there were a change in market conditions, they would be willing to consider proposals to mitigate price risks for customers. They concluded by saying that the performance of the utility's Price Risk Management Plan over the last 10 years did not convince them that continuation of the program was in the ratepayers' interest.

### *In some instances, hedging programs have been continued, while in other cases, hedging programs have been targeted for additional review*

In spring 2009, the Colorado Public Utilities Commission commented on testimony filed by commission staff, which criticized gas hedging by Xcel's subsidiary, Public Service Company of Colorado. The staff had conducted quantitative analysis to determine that during the period following "Katrina" (2005-2006), the utility's hedges were close to breaking even, i.e. the premium paid for hedging nearly equaled the benefits it provided over spot market prices. But a break-even analysis of the hedging costs compared to spot market prices for the period 2005 to 2008 illustrated that the utility only regained approximately a third of every dollar spent on hedging. Ultimately, in its order, the Commission supported the Administrative Law Judge's position that the utility's hedging program should not be suspended. In his Recommended Decision, the Administrative Law Judge wrote, "Preapproved elements of the [hedging] plan avoid hindsight evaluation of each program. Simply stated, [the plan] is to be evaluated based upon information available at the time, not in terms of whether the plan "beat the market". To the extent Public Service implements such a plan, as

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<sup>3</sup> Public Utilities Commission of Nevada. Docket No. 10-09003. *Application of NV Power Co d/b/a NV Energy for Approval of its Energy Supply Plan Update for 2011-2012*. Stipulation, November 8, 2010

<sup>4</sup> British Columbia Utilities Commission. Order Number 6-120-11. *Application by Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively Terasen Gas) (now FortisBC Energy Inc. and FortisBC Energy (Vancouver) Inc.) for Approval of the Price Risk Management Plan Effective April 2011–October 2014*. July 12, 2011.

approved, the associated hedging costs should not be subject to disallowance in any subsequent gas cost prudence review proceedings.”<sup>5</sup>

A recent example of a program subject to further review is Rocky Mountain Power’s hedging program. In May 2011, in response to PacifiCorp’s rate filing for its Utah subsidiary, Rocky Mountain Power, the Utah Industrial Energy Consumers pre-filed direct testimony relating to revenue requirements to disallow \$19.7 million related to “imprudent hedging practices” by the utility. PacifiCorp had a hedging program for Rocky Mountain Power that layered in hedges 48 months into the future, where nearly 100% of its open commodity price risk in the first two years was hedged. In the testimony, the industrial group commented that the utility’s hedging program was not adjusted to account for changes in market conditions and the expanding supply of natural gas through shale gas production.<sup>6</sup> Hence, the industrial group suggested the utility was imprudent to hedge such a large percentage of its open positions and should have reduced its fixed price hedges, to leave open a third of its portfolio to spot market pricing.

In July 2011, a Stipulation was filed with the Utah Public Service Commission where the parties agreed to a collaborative process to review possible changes to the company’s hedging practices. As part of the Stipulation, the utility’s past hedges will not be disallowed and the utility will agree to implement any changes that result from the Collaborative Process or commission order. Several issues that will be addressed in the Collaborative Process include a new maximum hedge volume percentage limit or range; risk tolerance bands based on time to expiration VaR (“TEVAr”) or VaR limits; position limits; a process for review of hedging transactions outside of accepted guidelines, including natural gas reserves or storage; liquidity, transparency and other risks of different hedging tools such as financial swaps, fixed price physical forward contracts, and options; a semi-annual confidential report on hedging status; and coordination and implementation issues relating to the inclusion of financial swap transactions.<sup>7</sup> The Stipulation was approved in a Memorandum Decision on August 11, 2011, and will be followed by a final order that discusses the evidence and the commission’s decision on or before September 21, 2011.

In another recent circumstance, utility hedging was challenged by commission staff and the commission’s decision has been deferred until the individual utilities’ Purchased Gas Adjustment (“PGA”) proceedings. In February 2011, the South Carolina Office of Regulatory Staff (“ORS”) requested suspension of the hedging programs of South Carolina Electric and Gas (“SCE&G”) and Piedmont Natural Gas. The ORS commented that the hedging costs incurred by the utilities may be appropriate for markets where there is significant price volatility, but were not appropriate for more stable natural gas market conditions. SCE&G’s hedging program “cost” customers over \$50 million since 2006, and Piedmont’s program “cost” over \$37 million

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<sup>5</sup> Public Utilities Commission of the State of Colorado. Docket No. 08A-095G. *In the Matter of the Application of Public Service Company of Colorado for Authorization to Continue in Effect, On a Permanent Basis, Its Monthly Gas Cost Adjustment Tariffs, With Modifications to provide For Symmetrical Interest on Deferred Balanced of Over- And Under-Recovered Gas Costs, and to Extend For an Additional Four-Year Period the Current Procedures for Seeking and Obtaining Authorization to Implement Annual Gas Price Volatility Mitigation Plans for Its Gas Sales Customers.* March 2, 2009.

<sup>6</sup> Public Service Commission of Utah. Docket No. 10-035-124. *Direct Testimony of J. Robert Malko, Utah Industrial Energy Consumers. In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations.* May 26, 2011.

<sup>7</sup> Public Service Commission of Utah. Docket Nos. 10-035-124, 09-035-15, 10-035-14, 11-035-46 and 11-035-47. *Rocky Mountain Power Settlement Stipulation.* July 28, 2011

since 2002.<sup>8</sup> This request for suspension was later withdrawn in July 2011, and it was determined that the utilities and the ORS would address the prudence of the hedging activities in the annual fuel clause PGA proceedings.<sup>9</sup>

***Despite some commissions deciding to put utility hedging on hold, national regulatory associations recommend serious consideration of hedging programs***

The Board of the National Association of Regulatory Utility Commissioners (“NARUC”) recently published a set of resolutions in July 2011, including one titled, “Resolution on Ensuring Stable Natural Gas Prices”, in which the resolution encourages state regulators to give serious consideration to the recommendations of the “Task Force on Ensuring Stable Natural Gas Markets.”<sup>10</sup>

The Task Force worked for a year and published its report in March 2011, under the leadership of the Bipartisan Policy Center and the American Clean Skies Foundation. The Task Force included representatives from natural gas producers, pipelines, distributors, industrial customers, electricity generators, consumer advocates, NARUC, the Natural Resources Defense Council, and other industry experts. In its set of recommendations, the Task Force urged NARUC to consider the merits of diversified natural gas portfolios, including hedging and long-term natural gas contracts. Specifically, NARUC should consider whether short-term contracts run contrary to the goal of offering customers price stability, the pros and cons of long term contracts, and regulatory risks of long-term contracts for utilities if no pre-approvals exist.

NRRI has been urging utility commissions to become more involved in reviewing and monitoring their utilities’ hedging programs. However, this will likely require increased exposure by utility commission staff and commissioners to hedging principles and mechanics. Commissions will likely become more involved and will request more flexible hedging programs. This will take coordination between the utilities and stakeholders to develop a program that is at once understandable as well as flexible in terms of responding to changing market conditions.

***Commission actions have in some cases included support for alternative hedging instruments as well as offering customers special rate options***

Hedging is not limited to financial hedges. Other hedging products may include but are not limited to: physical supply contracts using fixed price, flexible volume contracts, physical contracts with option trigger pricing, natural gas storage, tolling or heat rate contracts to hedge generation capacity, and seasonal physical exchange agreements. These should all be considered to be part of an overall supply hedging program, as no one instrument can effectively meet all portfolio needs.

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<sup>8</sup> Office of Regulatory Staff South Carolina. Letter Re.: Request for Suspension of SCE&G and Piedmont Gas Hedging Programs. February 24, 2011

<sup>9</sup> Public Service Commission of South Carolina. Commission Directive. Docket No. 2011-82-G, Order 2011-402. July 13, 2011

<sup>10</sup> National Association of Regulatory Utility Commissioners. *Policy Resolutions Passed by the Board of National Association of Regulatory Utility Commissioners*. July 20, 2011

Another hedging consideration is the duration of the hedging. NRRI and the Task Force Report adopted by the NARUC Board, both suggest consideration of longer-term hedges. The Public Utility Commission of Oregon has gone so far as to support investment in reserves by its gas utility, Northwest Natural. The utility has an agreement with Encana Oil & Gas (USA) Inc. to develop physical gas reserves that are expected to supply a portion of its utility customers' requirements over a period of about 30 years. During the first 10 years of the agreement, Northwest Natural expects that 8 to 10 percent of its average annual requirements will be supplied through this arrangement. The total investment is estimated to be about \$250 million. The OPUC approved the utility's plan in April 2011. The utility can recover the costs of gas produced and delivered, plus a rate base return on investment through its annual PGA mechanism.<sup>11</sup>

In the recent British Columbia Public Utilities Commission July 2011 Order, the Commission Panel suggested that the utility offer different rate options to customers so that those customers who want fixed price or some form of hedged program may elect that rate option, as opposed to a floating or market price rate. Other commissions might also support this type of program, because the costs attributable to hedging would be borne by the customers who opt for the price protection, rather than assessing hedging costs on all customers whether they want it or not.

***Hedging objectives are an important part of the dialogue between commissions and utilities and avoided costs need to be considered in a hedging program***

“Hedging” can mean different things to different parties; therefore an important first step is to obtain broad consensus of the hedging objectives of the utility's hedging program. By way of simple example, one objective could be that hedging is intended to protect customers against price spikes during certain high usage seasons, while another objective might be to protect customers against rising price trends that may occur over an extended period of time.

While stakeholders have focused on “costs” associated with hedging, avoided costs must similarly be reviewed. In several instances, success (or lack thereof) has been measured by comparing the hedged prices to spot market prices. The “costs” have referred to any premiums paid for call options, as well as the difference between fixed prices or put strikes of collars and the spot market price. What is missing is more analysis of the potential avoided cost. Additional scenario analysis can demonstrate what could have occurred as well as estimate the potential price exposures avoided as a result of hedging.

***There is a lack of consensus among jurisdictions as to whether programmatic or discretionary hedging is the better approach***

In some jurisdictions, regulators are shortening the hedging program horizon and limiting discretionary actions. Programmatic hedging has the benefits of being easy to document, is non-speculative in nature, and tends to smooth price peaks and troughs by averaging hedges ratably over time. But programmatic hedging does not change for varying market conditions, and hence is not very adaptable to changing circumstances.

In other jurisdictions, there may be support to move away from programmatic hedging towards a more discretionary approach, to address criticisms that utility hedging programs are too rigid and do not respond

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<sup>11</sup> Northwest Natural. Securities and Exchange Commission. 10 Q filing, First Quarter 2011

quickly enough to external events. In Delaware, in response to Delmarva Power's Gas Cost Rate filing, a consultant for the commission staff proposed that dollar cost averaging<sup>12</sup> would be best, so that hedging volumes would increase in low market price environments and would decrease in higher priced market events.<sup>13</sup> Other options might be to rely upon market risk metrics such as customer rate impact "at risk" exposure analysis.

One benefit arising from the increased focus on utility hedging is that regulators and stakeholders have grown increasingly sophisticated about commodity markets and hedging, and some may support more complex programs that adjust hedging actions for new market conditions. However, the more discretionary a program design, the more critical decisional documentation and transparent processes become. Further, there must be rigor and consistency in how hedging is adjusted in different market price environments. It will be important in the design and approval stage that the hedging program has clear triggers for when hedging decisions will be executed. During the implementation stage, it will be important for utilities to document information that was known to them to demonstrate that reasonable actions were taken, consistent with the program design.

### ***Utilities should take a fresh look at their hedging programs***

We expect commissions will continue to review their utilities' hedging plans in a critical light, and it will be necessary for utilities to work in collaboration with stakeholders to consider adaptations to hedging plans that respond to new market conditions and that provide customers protection in the event of rising gas and power prices. It is ironic that in today's market, as the price of hedging has declined, stakeholder support for hedging has waned. Conversely, if utilities were to abstain from hedging until volatility and prices rose, hedging may be deemed by regulators to be too costly for ratepayers. Given that regulators today may not support an aggressive hedging program despite lower market prices, it may be more practical to develop a flexible hedge program that establishes a framework for hedging in the future as conditions change. There is presently a window of opportunity to develop new programs before new supply/demand conditions materially change market prices.

The recent 24 months of price declines has lulled many stakeholders into believing that low gas prices are now the "norm", but market conditions will change at some point. The question is when, how quickly and to what degree? If we have learned anything from the past, it is that we cannot predict the future with certainty. In the future there will be changing supply/demand factors which may turn market prices in the other direction. Utilities will want to be prepared before that market shift occurs.

On the supply front, there may be environmental regulation that slows shale gas production, additional compliance requirements that increase shale gas production costs, or lower reserve projections of how much shale gas can be economically produced. Natural gas demand may increase due to stymied nuclear plant development, rising coal plant operating costs and/or closures of coal plants as a result of environmental compliance. New demand could result from economic recovery, LNG exports and/or new natural gas and

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<sup>12</sup> Dollar cost averaging is the technique of hedging a fixed dollar amount of a particular commodity on a regular schedule, regardless of the contract price. More contracts are purchased when prices are low, and fewer contracts are purchased when prices are high

<sup>13</sup> Public Service Commission of Delaware. PSC Docket No. 010-295F. *Direct Testimony of Richard W. Lelash on behalf of the Staff of the Delaware Public Service Commission. In the Matter of the Application of Delmarva Power and Light Co. for Approval of Modifications to its Gas Cost Rates.* February 10, 2011.

electric vehicle use. A combination of these factors could cause the North American gas supply/demand balance to materially shift, bringing about increases in market prices and volatility.

### *How Concentric can assist*

Concentric is uniquely positioned to help clients review and revise their utility hedging programs. We can provide a comprehensive assessment of whether the current hedging program is accomplishing stated hedging objectives, which would be facilitated by stress testing under a variety of market scenarios. Where appropriate, Concentric can also help clients restructure their hedging program to meet company goals and address stakeholder concerns. Our experienced risk management staff will help design a price risk mitigation program that can respond to varied market conditions, employing market price and risk exposure signals. Concentric will help clients develop hedging criteria and consider a wide range of hedging instruments to fit different market circumstances and portfolio exposures.

The critical success factors to a successful hedge program are market relevance, flexibility, cost, and transparency. One of the most important aspects of any utility hedging program is communication with the regulator and intervenors. To insure success, Concentric can help clients engage stakeholders when developing hedging program objectives and design. Additionally, Concentric can assist clients in defending hedging program performance. The vast collective regulatory experience of our professional staff can assist in regulatory strategy, rate cases, regulatory prudence, litigation support and working with stakeholders to arrive at collaborative settlements.