Energy Insights:
Energy Risk Management

Market conditions create anxiety for energy firms*

Volatile energy prices and lack of credit availability threaten companies with derivative exposure.

*connectedthinking

PricewaterhouseCoopers

“…energy companies should go the extra mile to determine their current risk profiles and take appropriate actions to secure credit and monitor counterparty credit risk.”

Market conditions create anxiety for energy firms

Volatile energy prices and lack of credit availability threaten companies with derivative exposure.

By Martha Carnes

The turmoil and confusion that is roiling US financial markets has created a great deal of uncertainty for the energy industry. What is the impact of recent developments on the marketplace? On individual energy firms? And most important, what can the industry do now to protect itself?

Regardless of today's—or tomorrow's — headlines, two facts stand out. One, the commodity price environment continues to be highly volatile, and that is not likely to change in the near term. And two, the credit crunch is real and impactful. The combination of these issues has potential to create a high level of risk for energy companies that rely heavily on derivatives to protect themselves from price exposure.

Derivatives are often used to generate stable cash flows in volatile pricing environments. Commonly used to protect producers against price exposure should commodity prices fall, certain derivative strategies can also limit a user's ability to participate in the upside when prices are high. Recent market experience shows that increasing commodity prices can result in derivative liabilities that require additional cash margin deposits with counterparties—even for companies that have adequate underlying physical supply of the commodity. Decreasing commodity prices, especially in the current environment, can result in derivative assets that create a concentration of credit exposure should the counterparties to these contracts be unable to perform.

'Perfect storm' scenario threatens

This problem is exacerbated by the global credit crunch that is impacting every industry. Credit is tight and lenders are under extreme pressure. Even existing lines of credit are being withdrawn if lenders assert a "material adverse change" has occurred, invalidating borrowing arrangements.

In other words, an energy company that finds itself facing large margin calls due to spikes in oil or natural gas prices may not have the liquidity it needs to meet its obligations even if it appears to have access to cash, because existing loans or lines of credit may not be available. And obtaining new credit quickly—when you need it the most—may be impossible.

Further, because many energy companies execute their derivative contracts with financial institutions, many of which are in distress, falling prices require

diligence as well to insure that the cash inflows designed to offset the declines in the physical market will be collectible.

This "perfect storm" scenario—unanticipated before the summer of 2008—means that energy companies should go the extra mile to determine their current risk profiles and take appropriate actions to secure credit and monitor counterparty credit risk. Senior managers and boards of directors should now be mandating that cross-functional teams—comprising finance, treasury, risk management, and trading and marketing—work this issue in depth to fully understand the company's total liquidity exposure and develop contingency plans for even the most far-reaching scenarios.

How should this process work? The recommended approach based on recent observations is a multi-step effort that energy companies should undertake and continually monitor and update until the liquidity crunch subsides.

Five steps that can reduce risk

Step one is ensuring that specific policies and procedures that guide the authorization and execution of derivative transactions are in place, and that all transactions are actively monitored for compliance with existing controls. In addition, executive management and the board of directors—and especially the board's audit committee—must fully understand the nature of the company's derivative strategy.

One cannot be lulled into thinking that their staff has considered and is prepared for every possibility. You must ask questions and carefully think through the company's overall exposure. It is critical that "every stone be turned over" in determining potential risk.

Step two is determining the size and scope of your company's derivative contract exposures, which are not always clearly evident. Does your company use derivatives for hedging purposes, to offset risk as a producer, consumer or supplier of the physical commodity? Does it take a speculative market position? Or—as is the case with some energy companies—do you do both?

In addition, it is important to take notice of the different types of exposure that can exist within a portfolio, such as volume spreads, time spreads and location spreads. For example, do you have natural gas contracts that require you to settle at Henry Hub but your production is in the Rockies? The timing and location of production can lead to mismatches that result in your risks not being fully mitigated.

In step three, your company should identify the various trigger points for margin calls by derivative counterparties. Most companies have effective treasury groups that work to understand the conditions that would require the posting of cash margin calls. However, the recent run-up in oil prices during the summer caught some companies by surprise because they had not

stress-tested their exposure using what many thought to be extreme prices. Your team should be running a wide range of planning scenarios to determine the company's margin call exposure—what is the liquidity risk if oil goes to $150 a barrel? Or $200 a barrel? Similarly, what is the company's risk if natural gas goes to $15 a MMbtu? Or $18?

Step four cautions companies to ensure they have lenders in place and credit available in the event that the scenarios tested come to fruition. Your company should take steps now to protect itself by obtaining additional or larger lines of credit and bolstering cash reserves wherever possible. While there is a cost to these actions, companies that wait until they need cash will find it may be too late.

This effort should also include regular, ongoing communication with current lenders. Your team should be in frequent contact with lead banks and other sources of liquidity, keeping them apprised of your situation and future needs and understanding their willingness to lend given existing market conditions. A billion-dollar line of credit is useless if the bank says "no" when you try and draw on it.

In step five, energy companies should assess and continually monitor the financial standing of derivative counterparties and their risk of non-performance. What is the company's cash flow and earnings exposure if counterparties default? Companies should employ robust analysis of their counterparties' ability to perform, going well beyond monitoring of credit ratings. Companies should be considering alternative strategies to mitigate credit risk. These may include ensuring appropriate diversification among counterparties, obtaining parental guarantees, instituting master netting agreements, or securing letters of credit or other forms of collateral. Credit default swap rates and other such instruments should be considered to ensure this analysis is robust and considers the markets view of non-performance risk.

Other issues to consider

Even if companies are able to manage their liquidity needs successfully, the combination of fast-rising commodity prices and exposure to derivative contracts can have other negative impacts on reported results. For example, when hedge accounting is not applied, financial results can be severely impacted by large derivative positions that are "out of the money," since unrealized losses must be recognized in earnings. In 2008, the market saw a number of billion-dollar-plus swings in reported earnings due to hedging activities that were swamped by high oil prices.

The bottom line

In these volatile times, companies utilizing derivatives must take a hands-on, rigorous approach to managing their overall liquidity position. In the short

term, senior executives should create a cross-functional team that can:

- Ensure compliance with internal policies and procedures
- Understand the company's full exposure
- Test liquidity in response to a wide range of price scenarios
- Obtain credit or cash as needed
- Monitor counterparties' ability to perform
- Communicate regularly with senior management, the board and lenders.

In some cases, executive management may find it useful to utilize the services of a third-party consulting firm who can advise and support the internal team on these issues.

With the proper attention and focus, energy companies can weather this "perfect storm" and ensure that they have the resources on hand to meet even the most difficult liquidity challenges, both today and in the future.

About the author

Martha Carnes

Ms. Martha Carnes has over twenty-five years of experience with PwC and is the leader of our US Energy and Mining Assurance practice, as well as one of the firm's global subject matter experts for the natural gas industry. As the US Energy and Mining Assurance leader, she is responsible for ensuring the services we deliver to our energy clients are of the highest quality through the appropriate allocation of resources to our clients, the technical and industry-specific training and development of our people, and the sharing of knowledge among our energy teams. Ms. Carnes serves energy Assurance clients, including natural gas transmission and distribution, natural gas and power trading and marketing, and oil and gas exploration and production.

Ms. Carnes is a contributing author to several energy industry textbooks and an instructor and course writer for many of the firm's energy and technical training courses and frequently speaks at firm and industry conferences on current energy industry issues. Ms. Carnes has made presentations to members of the Interstate Natural Gas Association of America, the Federal Energy Regulatory Commission, Financial Executives International, Edison Electric Institute, and the American Gas Association.

About PricewaterhouseCoopers

PricewaterhouseCoopers provides industry-focused assurance, tax and advisory services to build public trust and enhance value for its clients and their stakeholders. More than 146,000 people in 150 countries across our network share their thinking, experience and solutions to develop fresh perspectives and practical advice.

About the PricewaterhouseCoopers Energy Practice

Recognized globally for deep energy industry experience, PricewaterhouseCoopers has an extensive history of providing expert resources and proven solutions that enable energy companies to meet their business imperatives. By providing audit, tax, and business advisory services to the Supermajors and key National Oil Companies and the vast majority of the Fortune 500, PricewaterhouseCoopers' professionals possess the experience necessary to provide optimal insight and impact. The global energy practice of more than 3,100 professionals, including 300 partners, is headquartered in Houston, Texas, and is committed to building meaningful relationships with energy clients. Commitment to the energy industry goes beyond service delivery and is demonstrated by an additional focus on knowledge sharing accomplished through thought leadership publications, educational opportunities, and industry event participation and sponsorship.

pwc.com