

Credit Risk: High Energy Prices Create Credit and Collateral Pressures on Energy Companies

World Energy® interviews Mark Cory and David Johnson of Protiviti

Oil price levels have hit historic high marks, and natural gas prices remain strong. Overall, this is good news for the energy industry. As with anything good in life, new risks are created. Energy companies are now facing credit and capital risks in areas that they traditionally have not considered. World Energy interviewed two risk experts at Protiviti to gain additional insight.

World Energy: Oil and gas prices are stronger than ever. Why should energy companies suddenly be concerned about credit risk?

Cory: High energy prices have dramatically increased exposures for delivered volumes. This results in companies taking a harder look at the credit worthiness of their counterparties and also at better managing their own working capital. Likewise, refiners, traders, processors and utilities are being questioned much more closely about their own credit worthiness. They need to be able to demonstrate that they have the credit capacity to meet their obligations under higher price scenarios. As a result of this higher price environment, the threshold levels in credit agreements are more likely to be triggered, thus resulting in daily collateral movements that would not typically occur in a lower price environment. These daily collateral movements require higher levels of working capital to sustain operations.

World Energy: Are there particular credit concerns for oil and gas producers as a result of these higher prices that they have not traditionally focused on?

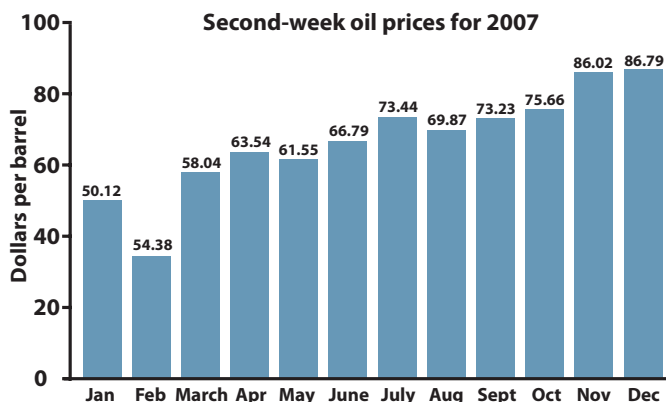
Johnson: A significant issue that we are working through with many oil and gas producers is the credit exposure they face with their refiners. An example

would be producers who are delivering index-priced crude to refiners. The mere fact that prices have increased threefold over the past few years has dramatically increased their credit exposure with those refiners. Often, a producer may think of the refiner as a long-standing business partner rather than a customer, but higher prices can significantly strain the refiner's credit and working capital capacity. Producing the oil is terrific, but without collecting the cash, you might as well be playing with Monopoly money. Evaluating an individual refiner's capital capacity and credit worthiness proactively and addressing the issues accordingly can help prevent producers from facing a sudden and unexpected shortfall in cash.

World Energy: Are increasing energy prices forcing companies to make difficult capital allocation decisions?

Johnson: Yes. Often, energy traders have forward transactions that extend two to three years into the future or longer. These transactions are highly vulnerable to fluctuating energy prices and often require significant levels of collateral or margins. As a result, collateral may be held until settlement. Companies involved in multiple portions of the energy sector often find themselves making difficult decisions between supporting the working capital and credit requirements of the trading operation versus continued capital spending through the annual exploration program. All too often, we see this equation settled based upon emotion and tradition rather than with actual financial analysis.

Cory: When reviewing the expected returns of the trading operations, companies must consider the level and type of open positions and the related collateral requirements. Traders should be evaluating the expected return on this overall investment versus the additional costs created by these collateral requirements. These costs can include the triggering of debt covenants and the exhaustion of lines of credit.



Source: U.S. Energy Information Administration

Such events could increase the overall borrowing cost of the corporation and should motivate companies to more effectively manage collateral movements on a daily basis by looking at collateral requirements on a counterparty level.

World Energy: Is credit risk and non-performance risk one and the same issue?

Cory: While credit risk and non-performance risk go together, they are distinct issues. If a supplier does not deliver contracted volumes, there may be credit risk if the purchase cannot be made at an equal or better price. Regardless of that, the non-performance can have a ripple effect and result in the declaration of force majeure, lawsuits and effects on a company's reputation that may have a more lasting effect.

World Energy: What are some of the measurement and mitigation techniques that companies are using to address credit risk?

Cory: One of the key techniques used by effective credit managers involves evaluating distributions of potential future exposure. Such potential exposure includes both forward mark-to-market values and settlement values. When looking at such exposure, it is important to evaluate the effects of counterparty agreements with and without netting. Bankruptcy courts sometimes apply their own standards, and even if you prevail, it may take years to receive the cash; therefore, this type of analysis is important. In addition, we see energy companies beginning to combine the potential future exposure measure with recovery rates and default probabilities to calculate a credit-value-at-risk at a confidence level equal to one minus their own default probability.

Other measurement factors often applied include the stress testing of forward price curves to create estimates of bad debt expense and the evaluation of counterparty concentrations by industry sector. Our clients have also been creating their own internal credit scoring models so that counterparties can be evaluated more frequently rather than relying solely on the periodic reviews of outside credit agencies.

Mitigation measures include collateral threshold agreements, diversification of customers and daily allocation of collateral.

World Energy: Are there tools in the market to help energy companies measure and assess credit exposure in a more systematic manner?

Johnson: Yes, there are a number of tools in the marketplace to help energy companies assess credit risk. Many of the energy trading platforms have credit risk measurement capabilities. There is also a terrific independent credit risk system that can be interfaced with a number of the commonly used applications within the energy industry that we have found to be very effective for evaluating, monitoring and assessing credit exposure. However, tools are only part the answer. We have found that the most important aspect of properly managing credit exposure involves active monitoring on a daily basis.

Mark Cory (mark.cory@protiviti.com), a director at Protiviti, specializes in both enterprise risk management and commodity risk management for the energy industry. Prior to joining Protiviti, Mr. Cory taught in Rice University's MBA program. He also has 20 years of experience working for and with energy companies such as Tenneco Gas, Panhandle Energy and Duke Energy in various commercial, operational and management roles. Mr. Cory has been a speaker at several risk management conferences and has been quoted in various publications. He is based in Houston, Texas.

David Johnson (david.johnson@protiviti.com), a managing director at Protiviti, leads Protiviti's Global Energy & Utility Industry practice. He has worked extensively with the leading energy asset owners, producers, utilities, power generators, and natural gas and crude oil traders in all facets of their operations. Mr. Johnson has directed a wide range of energy and commodity-related consulting projects and has consulted with clients on an array of policy, organizational, process, credit, risk reporting, modeling, accounting and risk systems issues. Mr. Johnson has spoken at many North American energy seminars and has published numerous articles and videos on energy and commodity risk topics.

Protiviti is a leading business risk and technology risk consultant and a leading provider of independent internal audit services. Protiviti helps companies worldwide identify, source and mitigate business and technology risks faced within their critical operations. Protiviti's energy and credit risk professionals assist clients in managing the exposure associated with volatile energy commodities.