

# energy risk

Rising energy prices have thrown the issue of credit into stark relief, and credit lines are being used up increasingly quickly. How should credit managers react?

By *Oliver Holtaway*

## New frontiers in credit

★ Six years after the Enron debacle, credit risk is still an evolving issue in the energy markets. Many of the credit risk policies developed over the past few years were put to the test by last autumn's soaring energy prices. And with so many banks and hedge funds entering the market, credit professionals must get to grips with a whole new set of potential counterparties.

The good news is that credit quality in the energy sector is improving, and so credit risk policy can be developed in relatively calm waters. But despite today's relatively benign credit environment, risk managers can ill-afford to be complacent. **"You will sometimes hear people say they haven't had a default for ages. So they don't have credit risk," says Anuj Gupta, energy market manager at Moody's KMV. "But you always have credit risk."**

Too often, managing credit falls to the back office, while the front office is left to handle price and volume risk. It's usually only those companies that are facing liquidity problems that handle credit risk strategically. But, says Suzanne Dougharty, CFO and treasurer at PJM Interconnection, "credit risk should always be considered a strategic issue".

Sometimes, it takes a crisis to focus market players' minds on best practice. A recent default by an RTO New England member prompted other members to switch from monthly to weekly billing cycles, for instance, making cashflows more frequent.

But devising a sound credit policy isn't just about protection from disaster. By failing to invest in more sophisticated credit risk management technologies and processes, market participants miss the opportunity to improve their capital efficiency – or, in other words, to have healthier cashflows. "We still see a lot of cash collateral and bank lines," says

Dougharty. "It would be better to free these up for capital investment."

**There are energy companies with leading edge credit risk management policies, such as BP. What elevates their approach above the rest, says Gupta, is the fact that these companies manage credit risk at a portfolio level.** Typically, energy firms will look at credit risk from the transaction level, assessing the creditworthiness of each counterparty, and deriving a credit limit and arrangements for collateral and margining.

A more sophisticated approach aggregates the credit risk of these transactions to capture a portfolio view of the firm's credit risk, in accordance with the risk appetite of the board. The aggregated risks can be then be parcelled up by commodity or by region, and hedged accordingly – rather than just holding risk on the balance sheet, energy companies can use credit default swaps or other instruments to lay off the risks and free up their credit lines.

### Sophisticated management

But many energy companies are still using very basic tools to assess their credit risk. Experts say that the energy markets are about ten years behind banks in terms of sophisticated credit risk management.

The concept of default probability, for instance, is such a basic tool that one would assume most firms would use it as the bedrock of their credit risk policy – but many don't. Instead, they use credit risk models tied to the credit ratings bestowed by major rating agencies such as Standard and Poor's, Moody's or Fitch Ratings.

But these agencies assess credit risk in long-term scenarios, and focus primarily on fixed income products. **"Credit ratings alone are not dynamic enough for assessing credit**

**risk in energy trading,” says Gupta. “They are designed for a different market.”**

It’s obvious that credit risk will be priced differently for a counterparty carrying a ‘BB’ credit rating than for one carrying a ‘BBB’ rating. But by how much? “In some situations, some model inputs such as credit spreads are tough to come by, and estimates must be made,” says David Lamb, an executive director in the fixed income analytic modeling group at Morgan Stanley.

Even with a traditional debt instrument such as corporate bond – which is a fixed exposure – it is not always clear how to price this difference in credit quality. Credit risk for commodity derivatives is even more difficult to price, as the size of exposure fluctuates with energy prices.

The pricing of credit risk for energy derivatives has moved forward, says Lamb, “but it is still catching up with other derivatives areas”.

### Commodity price risk

When commodity prices rose sharply last year, many energy companies were forced to reassess their credit limits, which had been set too low to be workable in the new price environment. They were faced with a difficult problem. Leaving the credit limits in place was not an option: there was no question that the limits would be raised. But on what basis does one adjust credit limits simply because of high commodity prices?

“The firms with flexible policies and a strong risk culture have a competitive advantage when prices rise,” says Khalid Abedin,

credit risk manager at Constellation Power Source. “Especially if they understand how their credit risk profile is changing and how to lay it off risk-appropriately.”

Of course, commodity prices and credit quality are linked. If you buy from a natural gas producer, a soaring gas price will increase the producer’s cashflow, theoretically bolstering its creditworthiness. **“The next major challenge is understanding and quantifying the correlation between commodity price and credit quality,”** says Gupta.

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This is a three-legged equation, however. It’s difficult enough to understand the credit correlation between two counterparties in your portfolio when prices are static. Even in the fixed income market, few can credibly claim to understand this relationship – the downgrade last May of General Motors and Ford to junk status exposed many correlation models as wrong and caused massive problems in the fixed income universe. A lot of money, and not a few jobs, were lost.

Volatile commodity prices make matters even more complicated. At present, only a handful of experts are looking at this issue systemically – it is an important frontier for energy credit risk. [EIR](#)

### Clearing

One approach to credit risk slowly gaining favour is the use of clearing – that is, paying a central counterparty a fee to assume all of the credit risk associated with a transaction. If an energy company were to use clearing for all its transactions, it could in theory stop thinking about credit risk altogether.

“The next big development is clearing,” says Suzanne Dougharty, CFO and treasurer at PJM Interconnection. “I believe it is the future, as there are clear financial advantages in freeing up collateral and trade receivables.”

“It is still early days,” says Richard Jaycocks, CEO of The Clearing Corporation. “The interest and demand is there, but the number of offerings so far is small.”

The main cleared physical products are the ones that have been around the longest – crude oil and natural gas. Firms that already use financial cleared products are the most likely to use clearing for physical transactions. The main advantage is the possibility of multi-party netting. Most deals are structured to allow bilateral netting, but allowing multilateral netting provides even more capital efficiency. Using a central counterparty also allows companies to trade anonymously.

Jaycocks claims that the challenge for clearing is not so much the price resistance, but the educational effort involved in bringing about such a major business process change. Companies have been used to dealing directly with each other for decades – and some customers are deemed creditworthy enough to trade without having to post collateral, leaving little incentive to embracing clearing.