Gas Market Changes Improve Incentives For Explorers

The New Zealand gas market is entering a transition phase that will see fundamental changes over the next few years and improved incentives for explorers.

About 75% of New Zealand's gas requirements are currently supplied from the Maui field. The three components of the gas market are petrochemicals, electricity generation and direct reticulated users. Almost half of production is used for electricity generation, the actual amount dependent on water storage levels for hydro power generation. Close to 40% is used in the petrochemical industry, nearly all of it for making methanol. Reticulated gas for industrial and domestic consumers account for the remaining 15% of gas used.

Gas demand growth is in the 5-10 PJ range per annum. To meet this demand, Maui has been producing at the highest levels of its 22year history – over 191 PJ in 2001. However, the field is declining, and could be depleted by mid-2007, two years earlier than previously expected, according to Maui field owners Maui Development Ltd.

Developed and readily-accessed undeveloped reserves for Maui are likely to be about 3800 PJ instead of the 4085 PJ estimated in the Maui Gas Contract when it was signed in 1973.

This is significantly impacting gas markets, particularly the maintenance of gas supply to existing methanol plants and investment in new gas-fired electricity generating plant. The Maui field also no longer has the capacity to supply additional amounts of gas to replace hydro power shortfall in a dry year such as 2001.

The Maui field producers, Shell (77.5%), Todd (12.5%) and OMV (10%) do not sell directly to the wholesale market but to the Crown, at a price locked in under contracts that have been in place since 1973. The Crown then on-sells gas to downstream purchasers (NGC, Contact Energy and Methanex).

The Maui gas contracts represent a legacy of centralised energy planning that has left little scope for development of a market between producers and consumers. Until very recently, the market has been met mainly by the three companies holding entitlements to Maui gas and the capacity of the field to meet demand has established a baseline for virtually all transactions.

Over the period leading up to June 2009, when the main Maui contract expires, the natural gas industry will enter a period of transition to a gas supply situation significantly different from that applying today. The depletion of the Maui field and its capacity to meet demand means that transactions will not be constrained by surplus capacity.

As Maui declines, there is likely to be upward pressure on gas prices as higher cost alternatives are brought on stream. This will improve incentives for explorers. While a range of post-Maui prices have been predicted, explorers can confidently assess the value of future discoveries based on significantly higher prices than today's. E&P investment will also be facilitated by ensuring access to the Maui pipeline for non-Maui gas, and by the establishment of better market arrangements for gas trading.

The size of the future gas market will be essentially determined by demand for petrochemical manufacture and for electricity generation.