# Spot the Difference

**Wendi Orlando, Openlink, USA,** explains how real-time CTRM can help businesses adapt to a changing LNG market.

Slowly but surely, oil-linked contracts are being replaced by natural gas-linked contracts in the LNG industry. Eventually, there will be enough liquidity to graduate to an LNG market with open-access infrastructure and a liquid spot market. The right Commodities Trading and Risk Management (CTRM) tools are vital to take advantage of opportunities in this ever-evolving market.

## Change is in the air

The LNG sector has grown exponentially in recent years, benefitting from huge economic growth in the Asia-Pacific region as a whole. Growth in this region is expected to continue, although at a slower pace. This is likely to result in an LNG supply glut, as projects in Australia and the US come online. In its *Medium-Term Gas Market Report 2015,* the International Energy Agency (IEA) states states that global LNG export capacity is set to increase by more than 40% by 2020.[1]

Although some forecasts suggest that oversupply will send LNG prices crashing downwards, this is not necessarily the case. With the US recently exporting its first LNG cargo, natural gas prices may start to rise in the US, which could potentially create a natural gas price convergence around the world. Moreover, the majority of LNG contracts are still linked to the price of oil. And although it is unlikely that the oil price will reach US$100/bbl again in the near future, it is quite likely that the oil price will rebound from its current lows, taking LNG contracts with it. The fact that many are switching to natural gas-linked contracts will also help support prices to an extent.

The LNG market is growing and maturing, which is exciting news for traders.

## LNG markets: grown up

The gradual migration from oil-linked contracts to gas-linked contracts is just one way in which the LNG market is maturing. However, there is another crucial way in which the market is coming of age.

Currently, the vast majority of LNG contracts are long-term ones. Though there are often break clauses for renegotiation after a certain number of years, the modus operandi for LNG business is overwhelmingly trading in long-term contracts.

However, in response to certain LNG buyers demanding more flexibility, there are changes underway. Singapore, for example, has embarked on an ambitious project of LNG investment in an attempt to become a regional hub. In August 2015, state-owned Singapore LNG (SLNG) signed a contract for the expansion of its first LNG terminal with a fourth storage tank – the largest in the world at 260 000 $m^3$. There are plans for up to seven tanks at this terminal and a second terminal on the eastern part of the city-state is being considered.

Crucially, this infrastructure is open-access, removing the need for either the seller or the buyer to own capacity. As such, any vessel can dock, discharge and make use of the regasification facilities, or leave cargo for others to pick up and transfer out again. Whether this move will be enough to fundamentally change the market will depend on how much storage is available to use in this manner. If Singapore is successful in building as much as it intends, and the global LNG glut continues, then it is unlikely that long-term markets will take up all of the extra capacity.

Traders will be looking to the burgeoning LNG spot market for opportunities. This spot market will grow in response to the additional LNG on the market and the increase in open access infrastructure. Traders will be able to engage in redirection and will also be able to use the spot market to hedge against risks taken on longer-term contracts.

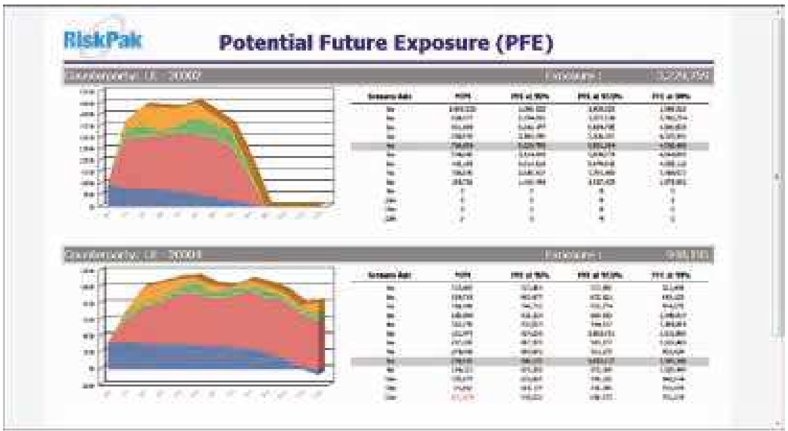


**Figure 1.** Potential future exposure.

**Figure 2.** Trade report dashboard.

## Tools of the trade

This new-model LNG market may offer a wealth of opportunities to LNG traders, as well as significant challenges. Traders already have to contend with a complicated trade lifecycle. Constantly changing market prices need to be balanced with long-term contractual obligations, plotted against the company's annual delivery programme (ADP) while accounting for costs associated with liquefaction, heel and boil-off, as well as shipping and regasification. Many large LNG players also have interlinked operations in the gas and/or power markets, which presents another set of prices and market changes to track.

For this reason, several LNG traders have invested in a CTRM system to manage their risk exposures and gain an overview of their contractual obligations and opportunities. Before dispatching a vessel, all of these factors need to be weighed and considered against each other to make sure the decision is profitable and not excessively risky.

However, the new, more mature LNG market presents a new set of challenges.

## Mature market, mature technology

In the past, traders could take their time to assess risks before dispatching a vessel – once a decision was made on the voyage, it did not need to be re-evaluated until the journey was complete and the cargo unloaded. However, the maturing market presents opportunities to redirect vessels and re-sell partial or whole cargoes whilst in transit.

As such, traders require a CTRM system that is capable of analysing new opportunities in real-time. This means evaluating the price in the moment and estimating the risk of it changing before the new voyage is complete, as well as assessing the change that a redirection might mean to a vessel's voyage path, boil-off, regasification and storage at the new destination. This should be done in the context of the company's ADP and its existing long-term contracts that must be honoured. It is also important to consider contract changes triggered by other market participants.

A real-time CTRM system will be able to analyse these factors and report in real-time on the likely effects of profit and loss, credit and currency exchange exposures. 'What-if' analysis can then give direction on market value, credit and trader limits.

CTRM is evolving to work in real-time, and is becoming increasingly automated, allowing human traders to make informed decisions more quickly. For those that would look to take advantage of the bright future for the LNG market, the right technology for the times will be essential. **LNG**

## Reference

1. *Medium-Term Gas Market Report 2015,* the International Energy Agency (IEA), (2015), https://www.iea.org/newsroomandevents/pressreleases/2015/june/despite-decline-in-oil-prices-natural-gas-demand-outlook-revised-down.html