Understanding LNG netback prices

The Australian Competition and Consumer Commission (ACCC) sees liquefied natural gas (LNG) 'netback prices' as a major factor influencing gas contract prices in eastern Australia. Every fortnight, the ACCC publishes its calculation of LNG netback prices (www.accc.gov.au/ regulated-infrastructure/energy/gasinquiry-2017-2020/Ing-netback-priceseries). But what is a LNG netback price and how useful is the concept in explaining local gas prices?

What is an LNG 'netback price'?

A netback price is not an actual price in the gas market. It is a concept about how a business may set different prices for different products sold to different customers. An LNG producer can sell gas to a local buyer or convert that gas into LNG for export. Producing LNG involves extra costs so the LNG price must be higher than the gas price for the producer to make the same return. A netback price estimates the (lower) price at which the producer could sell gas—rather than LNG—and make the same profit.

How is it calculated?

Calculating an LNG netback price is not simple.

The first step is to identify a realistic price for LNG exports from Australia. However, the global LNG market is largely a long-term contract market, without public disclosure of prices or contract terms. As large customers must have guaranteed supply, they rely on long-term contracts with tailored terms and conditions to meet their needs.

In the absence of information on LNG contract prices, the ACCC uses spot prices in Asia to calculate netback prices. A spot sale is a one-off sale with LNG sold on the day at a price the buyers in the market on that day are willing to pay. Spot prices tend to be volatile, reflecting the day-to-day swings of supply and demand.

The relationship between spot prices and long-term contract prices is indirect. Spot prices do not set long-term contract prices but influence expectations about long-term prices. As a one-off sale, spot transactions do not have the detailed terms and conditions needed for long-term contracts. For example, contract prices vary according to many factors, such as the duration of the contract and the ways risks are shared by buyer and seller.

Once the LNG export price is estimated on the basis of a spot price, all the costs associated with producing and shipping LNG are deducted to produce the netback price. These costs include the cost of liquefying the gas into LNG, pipeline transport and shipping costs.



What happens next?

The netback price calculated this way is the minimum price which the LNG producer needs to receive to sell gas to a domestic buyer.

However, this netback price is not the final price for the local customer—it is a wholesale price. Delivering gas to customers will involve other costs, in particular:

- Shipping costs. The ACCC calculates the netback price at the Wallumbilla hub in Queensland. The gas will need to be transported from Wallumbilla to the customer. The ACCC estimates that shipping gas from Wallumbilla to Melbourne can add 25 per cent to the wholesale price
- Retail costs. If the gas is purchased by a retailer, the retailer will need to cover its costs and make a return. Small businesses, residential customers and even many larger industrial businesses buy gas from a retailer or aggregator.

Therefore, for these various reasons, LNG netback prices should not be viewed as a benchmark for final domestic gas prices.

As the ACCC has emphasised, its calculation of LNG netback prices is not 'setting a level of gas prices in the east coast gas market or any other market in Australia.'

The caveats about netback pricing

While the ACCC methodology provides useful information, it has its limitations. There are significant differences between the global LNG spot market and the east coast gas market: for example, contract terms, risks and pricing are different. Accounting for all these differences in a single number—a netback price—is challenging. It would be far more credible for the ACCC to produce a range of netback prices than a single number.

Spot LNG sales are significantly different to the terms for domestic gas sales. For example, a typical single cargo of LNG is ~3.5 to ~4 petajoules (PJ) of gas to be delivered over two days, with the buyer required to take the full cargo (100% take or pay). Gas sales to local buyers are typically for smaller quantities to be delivered not in a matter of days but over months or years. The longer the contract, the more risk and uncertainties for both buyer and seller, requiring complex contract terms to be negotiated.

Market players have a different view of commodity forecasts (for example, LNG spot and oil pricing). Any forecast is subject to market swings such as volatility in the Asian LNG reference price, changes in LNG shipping costs, variable liquefaction and transport costs and exchange rate movements.

Each LNG exporter has different cost structures and long-term contracts which affect business decisions but cannot be captured in a simple netback methodology.

Making netback prices more useful

A suitable ACCC methodology would introduce a range of prices that incorporates the underlying drivers, risks and uncertainties.

A better way to inform all market participants would be for the ACCC to publish in future editions other LNG price markers, including prices based on short-term multi-cargo LNG contracts and prices based on long-term LNG contracts.

As an example of the variations from the ACCC methodology that these factors may introduce, respected market analysts WoodMackenzie have produced this chart, which shows domestic gas pricing can range over \$5 per gigajoule (GJ) from the ACCC methodology.



Source: ACCC, Wood Mackenzie. Oil price assumption: 60 \$/bbl. Source for conversion from \$/mmbtu tt A\$/GJ and Asian LNG (DES) spot price: ACCC Gas Inquiry 2017–2020. Data current as at February 2018.

For more information visit www.appea.com.au

APPEA LIMITED

t +61 2 6247 0960 e appea@appea.com.au Level 10, 60 Marcus Clarke St Canberra ACT 2600 Australia GPO Box 2201 Canberra ACT 2601 Australia