Hedge Market Development – Overview

21 October 2011

Introduction

The Electricity Authority (Authority) has taken a number of initiatives to provide for a more active hedge market. It commissioned an Independent Review of progress, prepared a Consultation Paper and received submissions, and has worked with the Australian Securities Exchange (ASX) to improve trading arrangements.

The Authority will shortly publish an Information Paper which summarises submissions, comments on recent developments, and outlines decisions about the direction for hedge-market development. The purpose of this overview is to provide high-level background and a summary of the Information Paper.

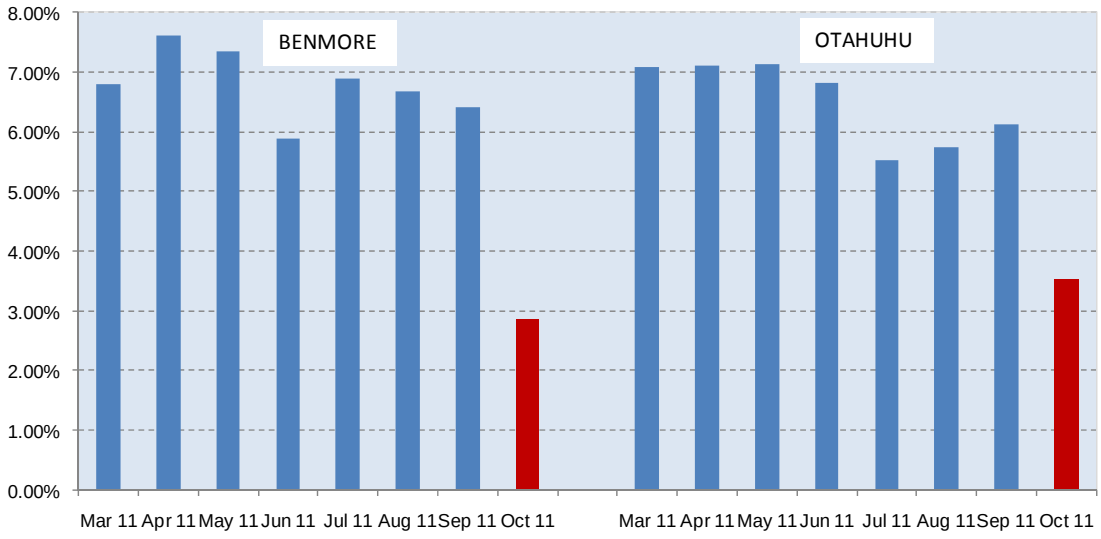
More detailed information, including the Independent Review, the Consultation Paper, and the Information Paper, is available at:

http://www.ea.govt.nz/our-work/programmes/market/hedge-market-development/

Achievements

As previously announced, the Authority has been working with the ASX and the large generators to get new market-making agreements in place to improve the pricing of electricity futures contracts and increase the volumes offered on the NZ electricity futures market. Three generators have signed the new agreements with ASX, and a fourth generator is considering the matter.

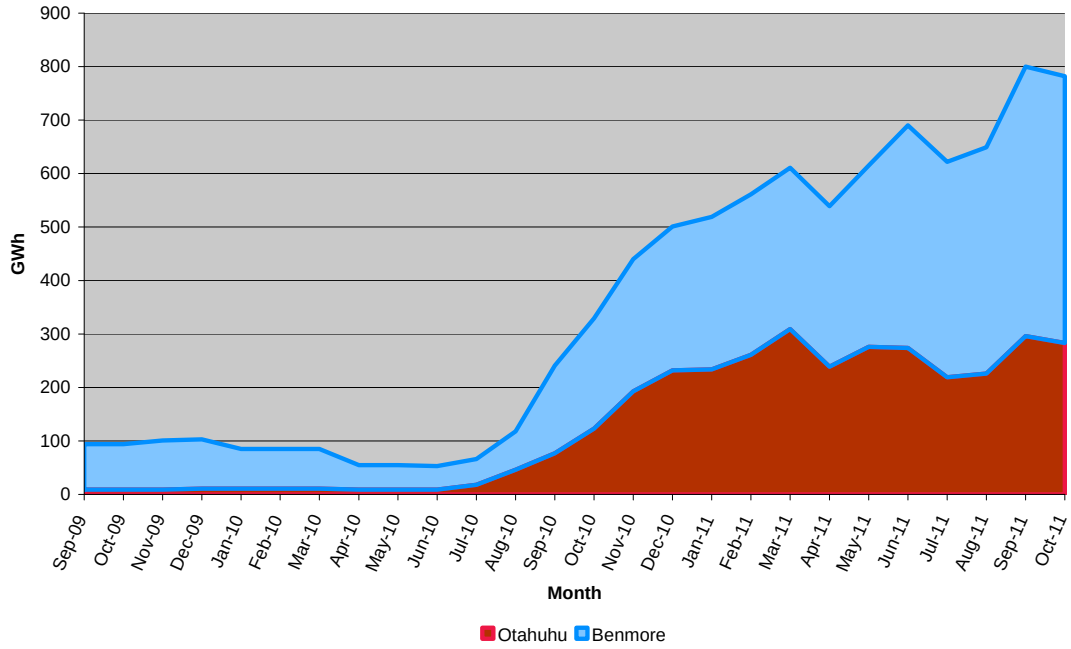
Figure 1: Average bid-ask spread on NZ electricity futures



The revised market-maker agreements provide for a maximum 5% spread and require market-makers to offer 3MW of futures contracts at each of Otahuhu and Benmore for 3:30 – 4:00pm each business day. They are also required to refresh their offers at least once during the time period by 1MW.

As a result, buy-sell spreads have reduced significantly (as illustrated in Figure 1 above) and trading activity has increased substantially (as illustrated in Figure 2 below). As at 19 October 2011, unmatched open interest (UOI) had increased to approximately 780 GWh.

Figure 2: ASX Open Interest (cumulative)



Implications

The Authority is encouraged by these developments and notes that building trading activity and liquidity takes time. Hedge market activity and liquidity increases as confidence in those markets improve. As it isn't possible to regulate confidence directly, the Authority is focusing on laying the foundations for confidence to build over time as hedge market performance improves.

The Authority is hopeful the new arrangements will attract financial intermediaries, small retailers and large consumers into the market. The Authority also expects the improved pricing of futures contracts will flow through to more efficient pricing and trading of over-the-counter (OTC) hedge contracts.

These developments mean the Authority has met the policy objective of s42(2)(g) of the Electricity Industry Act 2010 (Act), which requires the Authority to facilitate, or provide for, an active market for trading financial hedge contracts for electricity.

It is important to appreciate the Act doesn't require the Authority to achieve an active hedge market, but rather to facilitate, or provide for, one to develop. This reflects the reality that building an active market takes time, and the Act did not require the Authority to introduce mandatory hedging arrangements if certain activity levels were not met. The Act is silent on activity levels.

The Authority has provided for an active hedge market without amending the Electricity Industry Participation Code 2011 (Code), which was allowed for under s42(3) of the Act.

Further initiatives

The Authority will, however, consider Code amendments in the future if insufficient progress is achieved. It is also continuing with its cost-benefit analysis of market-making criteria to determine whether more generators should be market-makers on the ASX platform and whether Code amendments on that matter would deliver long-term benefits to consumers.

In regard to liquidity, the Government had set a target (outside of the Act) for UOI of 3,000 GWh by 1 June 2010. As previously announced, the Authority believes the target has effectively been met because Genesis Energy, Meridian Energy and Mighty River Power have indexed their virtual asset swap (VAS) contracts to the NZ futures price.

The intent of the UOI target was to ensure parties had sufficient 'skin in the game' so that strong incentives were created for them to set efficient futures prices. Although this has been achieved the Authority believes it is also important to make the UOI levels more transparent, and to this end it has set new targets for UOI:

- 1,000 GWh by 1 December 2011;
- 2,000 GWh by 1 March 2012; and
- 3,000 GWh by 1 June 2012.

The Authority intends obtaining the VAS contracts from the relevant generators and publishing them if the UOI targets are not met.

The Authority also intends to publish a booklet on electricity price risk management and engage an expert to provide presentations on this matter to interested parties.

The Authority is encouraging the development of a cap or options contract on the ASX platform, reviewing prudential security arrangements for the wholesale electricity market, and reviewing the availability of market-related information, particularly in regard to supply risks. It will also shortly make final decisions on its scarcity pricing and stress testing proposals. All of these initiatives encourage greater hedge market activity.

How will electricity consumers benefit?

The key benefits of a more effective hedge market are stronger competition in the electricity market and improved management of tight supply situations.

One of the key benefits from hedge market development is expected to be stronger retail competition. When markets are competitive there is strong pressure on retailers to cut costs and margins and to be more innovative in their market offerings in order to remain profitable - consumers generally benefit from lower costs, prices more accurately reflecting those costs, and improved services under these circumstances.

Traditionally new entrant and small retailers have purchased OTC hedge contracts from the large generators in order to compete in the retail market. Access to an actively traded electricity futures market where prices represent a true reflection of future costs will support existing small retailers and encourage new entrants in two ways. First, these parties can trade in the electricity futures market, either directly or via an intermediary. This provides an alternative to trading OTC with the large generators. Secondly, when these parties do trade OTC with large generators they can refer to forward prices in the futures market when negotiating price. These improved options for new entrant and small retailers to manage their price risk will contribute to more robust competition between retailers.

Better management of tight supply situations is another key benefit of a more effective hedge market. Generators are more likely to make efficient decisions about the hydro-thermal balance and other short-to-medium term risks, because a more effective hedge market will increase their freedom from any constraints that push them towards operating in a physically balanced manner at an individual company level. This will free up the potential for assets to be operated more optimally from a market-wide perspective.

Background on the electricity hedge market

As with many other developed countries, New Zealand uses an organised wholesale electricity spot market as the primary tool to coordinate generators selling electricity and wholesale purchasers (including retailers and large users) buying electricity.

In any given half-hour trading period, if the amount of generation available increases and demand for electricity remains the same, spot prices tend to fall. Similarly, if the amount of generation decreases or the demand for electricity increases, spot prices will tend to rise.

In order to manage the risk of price movements in the spot market generators and purchasers typically enter into contracts which insulate them from variations in the price of electricity – these are commonly known as hedge contracts.

Hedge contracts typically take a standard form, but are often tailored to meet the particular requirements of the seller and buyer in terms of quantity, duration and location on the transmission grid – these tailored contracts are commonly known as over-the-counter (OTC) contracts or trades.

One of the problems with OTC trading is that it can be difficult for new entrants, small retailers and consumers, to observe what the market price for electricity is and to make decisions about how best to manage electricity price risk. The Electricity Commission attempted to address this problem by requiring disclosure and publication of hedge contract data through www.electricitycontract.co.nz, but this has been only partially successful.

An alternative to OTC trades is provided by the NZ electricity futures available for trading on the ASX platform. ASX provides a market in which participants can buy or sell standard 1 Megawatt contracts covering quarterly or annual strips. One Megawatt is the amount of electricity required to continuously supply 1000 single bar heaters.

A key advantage of futures trading is that the use of a standard contract, and full transparency of prices, allows other participants to more readily observe the forward price of electricity. Forward prices for long-term contracts provide valuable information to generation and demand-side investors, and prices for short-term contracts assist with short-term generation and demand decisions.