



Hedge Market Development

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This submission has been prepared by Professor Andy Philpott of EPOC, in collaboration with Professor Eddie Anderson of the University of Sydney. It is a brief set of observations rather than a detailed submission.

The Energylink report gives an excellent analysis of the critical factors affecting the risk premium that occurs in contract prices when compared with electricity spot prices. The analysis is thorough and thoughtful.

Nevertheless, one aspect of the contracting situation has been omitted. A full understanding of the contract market is not possible without including the influence of contracts on prices in the spot market. Because the New Zealand spot market is not fully competitive, bids are not at marginal cost but instead are at different levels reflecting the market power of participants. This is not in itself necessarily inappropriate: the concept of workable competition is supposed by its supporters to allow a sufficient profitability to cover the fixed costs of generators.

In the spot market a generator holding a contract for, say, 70% of its generation capacity will if acting optimally bid at below marginal cost up to its contract point and above marginal cost for higher quantities. Since generators typically have large contract cover, the overall effect of contracts is to reduce the average spot price in comparison with the case where generators do not hold these contracts. We thus typically find that contracts include some premium in comparison with the actual spot price.

A purchaser considering a high price contract who decides against signing this contract could expect that generators then have lower contract cover, leading to higher spot prices. The contract which seemed to have an unattractively high premium would then seem to be reasonable.

The result of this is that the difference between contract and spot inevitably includes a component that reflects the reduction of spot prices resulting from the contracts themselves. We thus believe that the high delta values observed are partly the result of the combination of imperfect competition and market participants maximizing their overall profit.

We can also tell this story from the point of view of an investor considering buying contracts for differences. The price may look attractive in comparison with the expected spot price, but a non-market participant who writes this contract will by so doing, stand in the position of a generator, reducing overall generator contract cover, and hence increasing the spot price on average.

These observations add weight to the contention that the delta values are not excessive and do not necessarily indicate barriers within the contract market. They also raise the intriguing possibility of using analytics models on New Zealand data to discriminate the effects of risk aversion and market power exercise on these delta values.