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Dr Paul Kerin
Chief Executive Officer
Essential Services Commission of South Australia
GPO Box 2605
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Dear Dr Kerin

WHOLESALE ELECTRICITY COST INVESTIGATION – DRAFT DETERMINATION

Macquarie Generation welcomes the opportunity to comment on the Essential Services Commission of South Australia's *Draft Determination of Special Circumstances, Wholesale Electricity Cost Investigation*, published in October 2012.

Macquarie Generation owns and operates Bayswater and Liddell Power Stations, two of Australia's largest capacity thermal power stations, with a combined generating capacity of 4,640 MW. The Corporation supplies approximately 12% of the electricity consumed in the National Electricity Market.

Macquarie Generation made a submission to ESCOSA's Discussion Paper for this 'investigation' critical of the use of the long run marginal methodology for setting the wholesale electricity cost (WEC) allowance in regulated retail prices. We strongly favour the electricity purchase cost approach, subject to the availability of sufficient public data on exchange-traded contract prices.

Macquarie Generation agrees with the Draft Determination assessment:

> "*As the Commission is of the view that competitive market outcomes are in consumers' long-term interests then, subject to the need to allow for headroom to promote and protect competition, setting a WEC allowance in the standing contract price consistent with costs on which prices are based in competitive markets is also in consumers' long-term interests*."[1]

[1] Essential Services Commission of South Australia, *2011-2014 Electricity Standing Contract Price Determination, Wholesale Electricity Cost Investigation, Draft Price Determination, October 2012*, page 25.

Macquarie Generation takes a sceptical view of retailer arguments supporting the use of the long run marginal cost methodology when market prices are low. Our position is consistent with the independent consultant's comments:

> "*If a regulator uses the LRMC to estimate the energy cost, and the LRMC is higher than the prevailing wholesale electricity prices at that time, it does not follow that those higher costs would pass through to the generators. The gains accrue to the retailer and there are no increased incentives to invest in new generation*."[2]

Macquarie Generation notes that ESCOSA had consistently shown a preference for the electricity purchase cost approach in earlier determinations and gave an explicit statement in the 2010 Determination that it may reconsider the WEC allowance if the relevant market data became available.

While we support the decision to revert to the electricity purchase cost approach, Macquarie Generation is of the view that the draft WEC allowance lies at the upper end of possible estimates. Two key modelling assumptions would tend to overstate actual purchasing costs – the demand forecasts and the hedging strategy.

Demand forecasts

ESCOSA engaged Frontier Economics to model electricity purchase costs using a range of input assumptions and data sources. Frontier uses peak demand forecasts reported in the AEMO National Electricity Forecasting Report 2012 to prepare a load shape for small retail customers and to model spot and contract prices. Frontier runs a number of probability of exceedance (POE) scenarios (POE10, POE50 and POE90), with the medium case 50% POE peak demand forecasts forming the basis for the final market purchase cost.

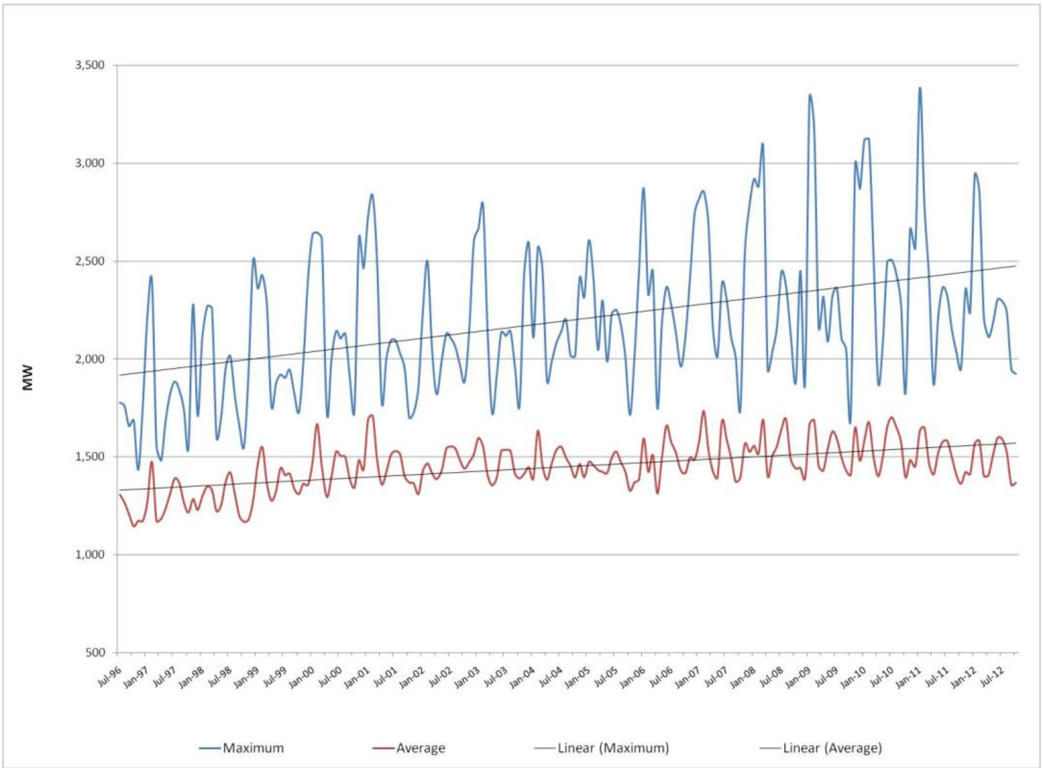
There has been a long history of over-statement of demand by AEMO. Charts 1 and 2 in Attachment 1 show historical AEMO summer and winter peak demand forecasts, as provided in the annual Electricity Statement of Opportunity. Each ESOO forecast is from the year immediately prior. For example, the forecasts for 2011-12 are those provided by AEMO in the 2011 ESOO. Also shown is the actual peak demand in each year. The charts reveal a consistent pattern of actual demands falling towards the 90% POE forecast, as estimated in the previous year's ESOO.

Figure 1 shows actual average monthly demand and peak monthly half-hourly demand for the past 15 years in South Australia. The South Australian demand patterns mirror trends in other regions. Aggregate consumption levels flattened around 2007-08 and

[2] ACIL Tasma, Wholesale electricity cost investigation, approaches to setting the wholesale electricity cost allowance, 26 July 2012, page 7.

have fallen since. Peak demand levels and the frequency of high peak periods have also moderated.

Figure 1: South Australian monthly maximum half hour demand and average monthly demand, July 1996 to October 2012



The demand forecasts have an additional impact on the draft determination through the calculation of the "headroom" component. Macquarie Generation accepts that some level of explicit margin is necessary to "protect and promote" competition including the risk of forecast error. ESCOSA calculates a headroom margin by looking at the difference in the modelling results for the 50% and 10% POE estimates and includes the full difference in the headroom component. Macquarie Generation is of the view that any forecasting error is likely to be the downside, not the upside, given the poor history of demand forecasting in the NEM.

Hedging strategy

The Frontier Economics' modelling approach takes account of the risk and reward trade-off between the level of hedging and the level of spot market exposure. That is, a retailer could follow a low hedging strategy and benefit from a period of low spot prices, although there is also the risk that it may be exposed to high spot prices.

> "*In calculating energy purchase costs, Frontier has chosen the most conservative point on the efficient frontier ... – consistent with a risk averse contracting strategy. This is the point that involves minimising risk to the greatest degree, and consequently involves the highest (efficient) energy purchase cost*."[3]

ESCOSA accepts this conservative position but notes that *"this approach will, if anything, over-estimate the energy purchase cost of a prudent and efficient retailer*".

Summary

Macquarie Generation endorses the ESCOSA decision to apply a methodology that looks at market prices not an artificial estimate of long run marginal cost. We accept the Frontier Economics modelling results, although we note that the ESCOSA draft determination has incorporated estimates that are likely to exceed actual purchase costs over the next two years.

Given the dramatic decline in aggregate and peak demand in recent times, spot and contract prices have fallen substantially. The benefits of those price falls should be enjoyed by all South Australian customers, not captured by the standing retailer through an overstated regulated WEC allowance.

Yours sincerely

Leisl Baumgartner
GENERAL MANAGER, CORPORATE AFFAIRS

1 November 2012

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[3] Frontier Economics, *Wholesale energy cost estimates for 2012/13 and 2013/14, A draft report prepared for ESCOSA, October 2012*, page 28.

Attachment 1: AEMO historical forecasts of South Australian peak demand