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Essential Services Commission of South Australia  
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Dear Commissioners,

**RE: Electricity Standing Contract – Wholesale Electricity Cost Investigation**

The Clean Energy Council (CEC) is pleased to have the opportunity to make a contribution to the Essential Services Commission of South Australia's (ESCoSA) discussion paper investigating the re-introduction of the wholesale electricity market price component into consumer's standing contracts. We believe that the consultation process should provide a means for ESCoSA to gain a detailed insight into the range of options available for inclusion of wholesale market electricity prices and looks forward to ESCoSA's final recommendations as they become available.

The CEC is the peak body representing Australia's clean energy and energy efficiency industries. Its priorities are to:

- create the optimal conditions in Australia to stimulate investment in the development and deployment of world's best clean energy technologies
- develop effective legislation and regulation to improve energy efficiency
- work to reduce costs and remove all other barriers to accessing clean energy

The CEC works with over 500 member organisations and the government to identify and address the barriers to efficient industry development in the energy efficiency and stationary energy sector. The clean energy industry contributes to the generation of electricity using wind, hydro, solar, biomass, geothermal and ocean energy as well as the emerging technologies and service providers in the energy efficiency sector including solar hot water and cogeneration.

The CEC welcomes the release of the Discussion Paper and would like to submit the following high level input in responses to the questions posed by ESCoSA.

**Background**

Prior to responding directly to the questions raised by ESCoSA the CEC would like to express some concerns about the approach used to estimate the wholesale price component (WEC) in the 2011-14 determination. In particular, a scenario where a statutory body is setting consumer tariffs based on 'best guesses' due to a lack of publicly available information creates significant uncertainty, which

consumers are then liable for. The CEC notes that at the time of the price determination the average wholesale price in South Australia was close to \$33/MWh and had been trending downward for one and a half years prior to the determination being made at the end of 2010.

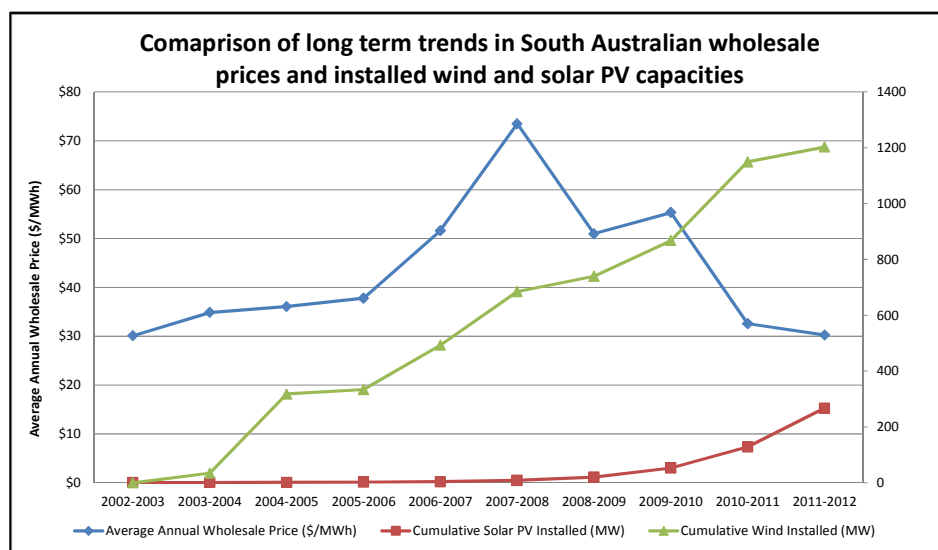
Given these trends it is difficult to understand how the application of the long run marginal cost model produced accurate results, irrespective of liquidity in the wholesale contracts market. The CEC urges ESCoSA to approach the problem in a more sophisticated manner in light of market objectives which prioritise the long term interests of consumers.

## General

The CEC expects that the integration of renewable energy and the correct treatment of the real peak demand period can provide some real benefits to consumers. These are explained below.

### Capturing the natural advantage of renewable energy

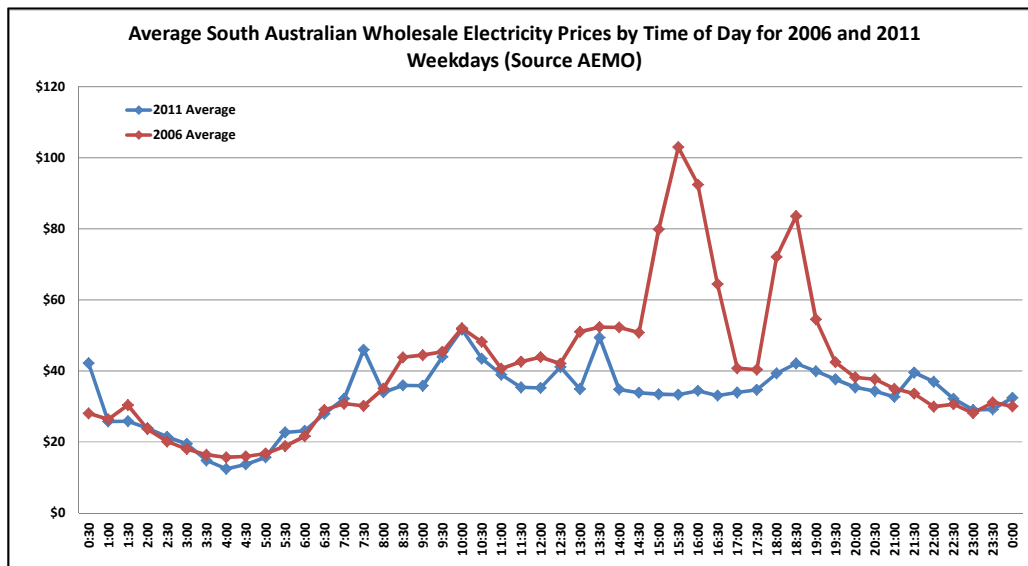
The South Australian wholesale pool price is at its lowest since market commencement<sup>1</sup>. Figure 1 compares the long term trends of wind and solar photovoltaic generation growth against the wholesale price in South Australia. Without considering in more detail there is an apparent relationship between increasing renewable generation and decreasing wholesale electricity prices.



**Figure 1: Comparison of trends in wholesale prices and installed wind and solar capacities in South Australia.**

This relationship is further demonstrated by comparing the 2006 average weekday price against that from 2011 in Figure 2. While the 2006 data shows a trend for higher prices during high load times, this is not clear from the 2011 data. A further comparison of 2006 and 2011 demand data finds correlation factors of 0.992 and 0.996 for the average and maximum daily demand profiles respectively, demonstrating that fluctuations in demand have not been responsible for depressing wholesale prices.

<sup>1</sup> AEMO SA Supply and Demand Report June, 2011



**Figure 2: Comparison of 2006 and 2011 average wholesale prices by time of day (notes: one outlying price day where the wholesale prices exceeded \$7,000/MWh was removed from each year; 2006 was selected as a demonstration case investigation of other years are expected to present similar results).**

The natural advantage of renewable energy is visible in two ways. Firstly, an estimated 260MW of installed domestic photovoltaic generation at the end of the 2011/12 financial year has made a significant depression in projected demand growth, to which the market is responding by signalling an over-supply by reducing prices. Secondly and in conjunction, wind generation is demonstrating its capacity to suppress wholesale prices due to inherently low short run marginal costs commonly utilised by generators in calculating their bids into the wholesale electricity market.

Given these factors it is no longer reasonable to assume that current hedging and bilateral forward contracts reflect the pre-08/09 higher wholesale price projections, as was assumed in the past price determination. Rather it would be expected that a prudent retailer would be investing relative to current market trends, which are clearly characterised by low wholesale prices.

#### Expected reduction in network investment

Recent analysis by the Institute of Sustainable Futures (ISF)<sup>2</sup> identified that across the NEM nearly 32% of the network costs are derived from investment to meet peak demand. South Australia is subject to some of the worst load factors across the NEM indicating that a significant benefit would be gained by consumers in that state by reducing growth in peak demand.

To this regard the CEC observes that the current 7-10 peak period tariff settings are legacy settings which fail to capture the modern implications that peak demand has on consumer costs.

Figure 3 shows average and peak electricity demand by time of day for weekdays in 2011. The figure indicates that while there is an average peak occurring in the period between 8:30am and 10:00pm

<sup>2</sup> Dunstan, C., Boronyak., L, Langham., E., Ison, N., Usher J., Cooper C. and White, S. 2011, *Think Small: The Australian Decentralised Energy Roadmap: Issue 1, December 2011*. CSIRO Intelligent Grid Research Program. Institute for Sustainable Futures, University of Technology Sydney.

weekdays, a maximum or ‘super-peak’ also occur which exceeds twice the average between 12:00pm and 8:00pm.

ESCoSA’s website indicates that some 45% of South Australian consumer’s electricity bills is required to support network investment. Applying the results from the work by ISF indicates that consumers could be saving approximately 15% of their bills by deferring peak demand driven network investment. This 15% would only be required to service the super-peak period. However, in the absence of a price signal to incentivise consumers to reduce demand such savings will not be realisable.

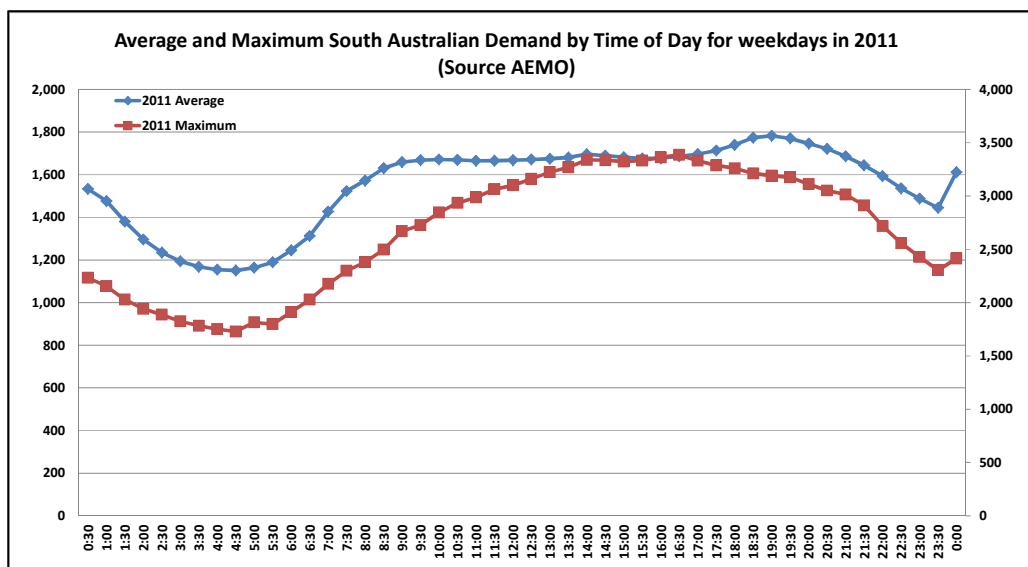


Figure 3: Average and maximum South Australian demand profiles by time of day for weekdays in 2011.

The CEC notes that ETSA utilities’ next 5 year distribution determination starts in 2015. Thus, although the current determination cannot be changed, ESCoSA is in a position develop and trial a pricing regime which would provide sound evidence to support savings for South Australian consumers in the next determination.

More appropriate price settings could clearly be in the long term interests of consumers. Failing to approach the problem of peak demand now could mean that South Australian consumers are over-charged for their network from today until 2020.

**Question 1 – What approach should the Commission adopt to setting wholesale electricity purchase costs for standing contract pricing purposes and why should that approach be used?**

Given the timing of the review with regards to broader reform across the National Electricity Market (NEM) the CEC observes that ESCoSA is presented with a significant opportunity to reform the way in which the WEC is captured. Of particular importance is the future use of smart meter infrastructure and the steps which need to be taken to move to a time of use cost reflective pricing structure.

As observed above there are two factors which should be considered in setting the WEC price. These include

- A reduction of the WEC partially resulting from the suppression of wholesale prices by large renewable energy penetration across South Australia.
- Changes to the treatment of peak demand periods in the recognition that the legacy 7-10 peak period no longer captures the impact of leak demand on network investment.

The CEC expects that the incorporation of these two factors will be the best approach for ESCoSA to set the WEC price in light of priority market objectives of reduced cost in the long term interests of consumers.

**Question 2 – Is the forward market for wholesale electricity in South Australia sufficiently liquid to provide reliable forecasts of the energy purchase costs of a prudent and efficient electricity retailer with the standing contract obligation?**

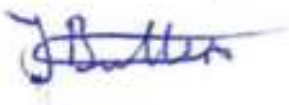
**Question 3 – If so should the Commission change the WEC component of the standing contract prices?**

While the CEC is not best placed to provide a comprehensive answer to question 2, the Commission must recognise the clear discrepancy that exists between actual, historical wholesale prices and the LRMC guesstimate does represent a very significant issue for SA electricity consumers. Retailers are passing along substantial wholesale prices to electricity consumers and at the same time being able to buy wholesale electricity at the cheapest prices ever.

The CEC recommends that the WEC be reconsidered in detail with the vision of longer term market structures and the long term interests of South Australian consumers in mind.

Please do not hesitate to contact Tom Butler on the details below for any queries regarding this submission.

Yours sincerely,



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