



ELECTRICITY STANDING CONTRACT - WHOLESALE COST INVESTIGATION DISCUSSION PAPER

20 June 2012

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ELECTRICITY

REQUEST FOR SUBMISSIONS

The Essential Services Commission of SA (the Commission) invites written submissions from interested parties in relation to the issues raised in this paper. Written comments should be provided by Wednesday, 18 July 2012. It is highly desirable for an electronic copy of the submission to accompany any written submission.

It is Commission policy to make all submissions publicly available via its website (www.escosa.sa.gov.au), except where a submission either wholly or partly contains confidential or commercially sensitive information provided on a confidential basis and appropriate prior notice has been given.

The Commission may also exercise its discretion not to exhibit any submission based on their length or content (for example containing material that is defamatory, offensive or in breach of any law).

Responses to this paper should be directed to:

Electricity Standing Contract – Wholesale Electricity Cost Investigation

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Public Information about the Commission's activities

Information about the role and activities of the Commission, including copies of latest reports and submissions, can be found on the Commission's website at www.escosa.sa.gov.au.

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1 INTRODUCTION

The Essential Services Commission (**Commission**) is an independent statutory authority, established under the Essential Services Commission Act 2002 (**ESC Act**), with regulatory responsibilities for essential services in South Australia. In performing its regulatory functions, the Commission's primary objective is to:

... protect the long term interests of South Australian consumers with respect to the price, quality and reliability of essential services.¹

One of the Commission's functions is to set electricity standing contract prices under the Electricity Act 1996 (**Electricity Act**). The standing contract is a statutory arrangement under which any residential or small business customers (**small customers**) who have not entered into a market-based contract with a licensed electricity retailer are able to purchase electricity from AGL South Australia Pty Ltd (**AGL SA**) under terms, conditions and prices regulated by the Commission.

The Commission regulates the standing contract terms and conditions by requiring AGL SA to adopt the terms specified in Part B of the Commission's Energy Retail Code;² the standing contract price is fixed by the Commission through a price determination made in accordance with the provisions of the ESC Act and the Electricity Act.³

The Electricity Act requires the Commission, in making a price determination, to fix the standing contract price for at least a three-year future period (**price path period**).⁴ This requires the Commission to forecast the prudent and efficient future costs of selling and supplying electricity to South Australian standing contract customers.

That is an inherently complex and uncertain task, presenting risks for South Australian customers. If estimates are too high, standing contract customers will pay too much, although those who have signed market contracts may receive prices more in line with efficient costs, to the extent that retailers compete with each other. If the forecasts are too low, standing contract customers may receive short-term benefits although, in the long-run, retailers may not compete robustly and the benefits of competition (innovation, low-cost offerings) may disappear, again, leaving customers paying more than they should.

Therefore, in setting the standing contract price, the Commission aims to meet its primary objective by ensuring that standing contract prices reflect the efficient costs of a retailer with the standing contract obligation in South Australia, including a reasonable profit allowance so as not to stifle competition in the retail market.

¹ Essential Services Commission Act 2002, section 6, available at http://www.legislation.sa.gov.au/LZ/C/A/ESSENTIAL%20SERVICES%20COMMISSION%20ACT%202002/CURRENT/2002_14.UN.PDF

² The Energy Retail Code may be accessed from the Commission's website at <http://www.escosa.sa.gov.au/library/101102-EnergyRetailCode-ERC03.pdf>

³ The standing contract pricing regime is set out at section 36AA of the Electricity Act 1996, available at <http://www.legislation.sa.gov.au/LZ/C/A/ELECTRICITY%20ACT%201996.aspx>

⁴ Electricity Act, section 36AA(4a).



In December 2010, the Commission made a price determination, fixing the electricity standing contract price to apply from 1 January 2011 to 30 June 2014 (**price determination**).⁵

On 15 June 2012, the Commission announced changes to the standing contract price which will apply from 1 July 2012 to 30 June 2013, reflecting the regular process of annual adjustments permitted under the price determination and allowing for the passing on of new costs.⁶ The result was an average bill increase of 18% for a typical residential standing contract customer, incorporating the impacts of the Commonwealth Government's Clean Energy Act 2011 (which places a price on carbon emissions) and increases in South Australian electricity network costs, driven largely by the increased costs of the feed-in tariff scheme established by the South Australian Government under the Electricity Act.

At the time of announcing the changes to the standing contract price, the Commission also announced that recent developments in the wholesale electricity market suggest that the forward cost of wholesale electricity (applicable for the standing contract retailer) may now be materially lower than was assumed by the Commission in making the price determination. Therefore, pursuant to its general powers to report on the performance of its regulatory functions,⁷ the Commission has determined that it is appropriate to re-examine the wholesale electricity cost assumptions that underpinned the price determination to confirm whether or not there has been a material change in those costs. The Commission's findings from this process will, in turn, provide a basis upon which it can determine whether or not it is necessary to make any consequential variations to the price determination.⁸

Given the significance of its standing contract price setting role, the Commission will conduct a public consultation process, in order to ensure that it has the best available evidence to draw on in making and reporting any findings. This paper, therefore, explains the matters which the Commission will be considering in this process calls for submissions on those issues and any other relevant related issues that stakeholders consider ought to be considered by the Commission.

⁵ Full details of that price determination, including all Commission documents and reports, consultant reports and stakeholder submissions may be accessed from the Commission's website at <http://www.escosa.sa.gov.au/projects/143/2010-electricity-standing-contract-price-path-inquiry.aspx>

⁶ Refer the Commission's website at <http://www.escosa.sa.gov.au/article/newsdetail.aspx?p=16&id=921>

⁷ Essential Services Commission Act 2002, section 8.

⁸ Under section 36AA of the Electricity Act 1996, where the Commission has determined that "special circumstances" exist, it may either vary an existing price determination or revoke an existing price determination and substitute a new one. The Commission has not made any such determination at this stage; it is merely seeking to inform itself as to whether or not "special circumstances" might exist.

2 CONTEXT

Consistent with the standard approach adopted by the Commission, the initial standing contract price under the price determination was set following a review of the key components of electricity retail supply costs, namely: wholesale electricity costs (**WEC**), retail operating costs (**ROC**) and the retail operating margin (**ROM**).

The relevant allowances, and other inputs to the initial standing contract price, are set out in Table 1. Due to uncertainty around the Commonwealth Government’s approach to emissions pricing, the WEC allowance did not include any recognition of the potential cost of emissions.

Table 1: Key Inputs into the Final Decision, Jan-Jun 2011 (\$Dec 10)⁹

Key inputs	Commission’s Final Decision
WEC (\$/MWh)	112.89
ROC (\$/customer, including REES costs of \$12.55/customer)	127.55
Margin (% (WEC + ROC))	10%
Average 6-month consumption per customer (MWh)	3.3
Retailer average revenue (\$/MWh)	145.02
Network charges (\$/MWh)	100.76
Total average revenue (\$/MWh)	245.78

While each of those components drives the standing contract price, the WEC is the focus of the Commission’s current consideration.

The WEC represents the total costs incurred by a prudent and efficient retailer in purchasing electricity to cover the anticipated consumption of standing contract customers. Importantly, these costs are always forward estimates as, at the time of any price determination, they are yet to be incurred. The Commission usually estimates the WEC by considering the likely costs of a prudent and efficient retailer operating under an optimum hedging strategy in the National Electricity Market (**NEM**) over the price path period.

⁹ Refer Essential Services Commission, *2010 Review of Retail Electricity Standing Contract Price Path - Final Decision Inquiry Report & Draft Price Determination - Part A - Statement of Reasons*, December 2010, p. ii.



Box 1: Wholesale electricity costs

Wholesale electricity costs: why pool prices are not the only factor

NEM pool (or spot market) prices are often quoted to demonstrate how prices have fallen in recent times; however, sole reliance on pool price information can be dangerous and generally misleading.

Pool prices do not represent the full costs incurred by a prudent and efficient retailer with the standing contract obligation (the obligation to offer to retail electricity to any South Australian residential or small business customer in on request).

Pool prices are volatile, set on a half-hourly basis, and can vary from -\$1,000 to \$12,500 per MWh. Retailers are exposed to these pool prices and therefore seek to insure against the risk of high prices (in particular) through the use of forward electricity (or hedging) contracts. This risk is of such significance that retailers have risk management policies which govern their hedging practices.

There are generally three forms of hedges used in the NEM: bilateral forward contracts between generators and retailers which have the effect of fixing a “swap” price for each MWh generated and sold; financial instruments purchased on the open market (for example, through brokers or via a futures exchange), which are of similar effect; finally, retailers may also hedge their exposure by investing in generation plant or by entering into power purchase agreements with generators. In South Australia, the vast majority of electricity sold is hedged by the use of bilateral forward contracts.

The actual cost of energy purchased by a retailer is predominantly set by the prices and nature of the hedging contracts it enters into. The terms of bilateral contracts are not publicly available, although data on prices and volumes traded through exchanges is available.

Where a retailer does contract with a generator, then there is financial pressure on the generator to ensure it is generating. If a generator has swap contracts for much of its capacity, and it is not called upon by the market to generate (because its bid prices are higher than the clearing price), the generator is exposed to major financial losses if the pool price goes above the contract price. Hence contracted generators will generally bid low prices into the market to ensure they are scheduled for generation.

This may have the perverse impact of driving down pool prices whenever the market is highly contracted. Therefore, low pool prices are not in themselves a sign that wholesale electricity costs have fallen.

For the purposes of the price determination, the Commission departed from its preferred regulatory approach and set a WEC allowance solely on its best estimate of the long-run marginal cost (**LRMC**) of electricity generation in South Australia, as opposed to a market-based assessment of electricity contracts. The Commission did so because it considered that the lack of liquidity in the contract market for wholesale energy raised doubts about the reliability of contract prices at that time. The disaggregation of the WEC allowance adopted in the price determination is shown in Table 2.

Table 2: Final Decision on WEC (\$/MWh Dec 10)

Wholesale Electricity Cost Component	Jan – Jun 11
Long run marginal cost of generation (LRMC)	\$ 93.93
Large scale renewable energy target (LRET)	\$ 3.66
Small scale renewable energy scheme (SRES)	\$ 6.00
Australian Energy Market Operator (AEMO) fees	\$ 0.39
Ancillary service charges	\$ 0.41
Distribution line losses	\$ 8.50
Total WEC	\$ 112.89

While the Commission has used estimates of the LRMC of electricity generation in South Australia in previous price determinations, it has done so largely as a secondary tool;¹⁰ as noted above, its standard regulatory practice has been to base its WEC allowances on observed market data for forward wholesale electricity contract prices.¹¹

In 2010, however, based on the lack of liquidity in the forward wholesale electricity contract price market, the Commission determined that it would adopt LRMC rather than using its standard practice. In its 2010 Final Decision, the Commission noted:

During the current review, the Commission has considered whether or not an LRMC approach is superior to a market-based approach, given the lack of liquidity in the wholesale market.

...

*The Saha advice to the Commission concluded that an **LRMC based methodology for determining WEC is acceptable and that, in general terms, no other methodology is likely to deliver a materially better outcome, given current wholesale electricity market conditions in South Australia.***

...

In deciding on a methodology for forecasting WEC, the Commission concurs with the views expressed by both AGL SA and Saha that lack of liquidity in the trading market

¹⁰ For example, in 2004 it used LRMC in estimating the customer load profile; in 2007 it used LRMC to set a notional upper bound for WEC

¹¹ Refer, for example, the Commission's March 2005 Inquiry Report on its Inquiry into the Electricity Standing Contract Price, at page 39 (http://www.escosa.sa.gov.au/library/050318-InquiryElecPricePath_FinalReport.pdf).



is such that **a pure market-based approach is unreliable for this current review**. An LRMC approach, which “looks through” the contract market to determine the underlying costs of generation is considered a more robust methodology **under current circumstances**.¹² (emphasis added, footnotes omitted)

The Commission went on to note, however, that:

The Commission acknowledges that a material change in wholesale market conditions during the next regulatory period could give rise to a special circumstances review.

...

*If the WEC decision is re-opened during the regulatory period, the methodology for re-determining WEC can be decided at that time, having regard to the circumstances of the market. If liquidity improves such that a different basis for determining WEC is appropriate, the Commission would explore all relevant options, **including the possibility of reverting to a market-based approach**.*¹³ (emphasis added)

None of the stakeholders who provided submissions to the 2010 price determination process disagreed with the Commission’s decision to base the WEC allowance on LRMC, given the market circumstances prevailing at that time.

As suggested at the outset, and as explained in more detail below, there is at least prima facie evidence which suggests to the Commission that wholesale market conditions have materially changed, with increased liquidity in the forward contract market. To the extent that there is a material cost differential between the LRMC estimate used by the Commission in 2010 and the best available evidence, then it may be appropriate to revert to the Commission’s standard, market-based, regulatory approach for WEC.

This is because the difference between the original LRMC estimate and current forward wholesale electricity contract prices, if established, would mean that South Australian electricity standing contract consumers may not be paying an efficient price for electricity.

¹² Essential Services Commission, *2010 Review of Retail Electricity Standing Contract Price Path: Final Inquiry Report & Final Price Determination*, at pages A-66 and A-67.

Available at <http://www.escosa.sa.gov.au/library/101208-ElectricityStandingContractPrice-FinalPriceDetermination-PartA.pdf>

¹³ Essential Services Commission, *2010 Review of Retail Electricity Standing Contract Price Path: Final Inquiry Report & Final Price Determination*, at page A-68.

3 PRIMA FACIE EVIDENCE OF MARKET CHANGES

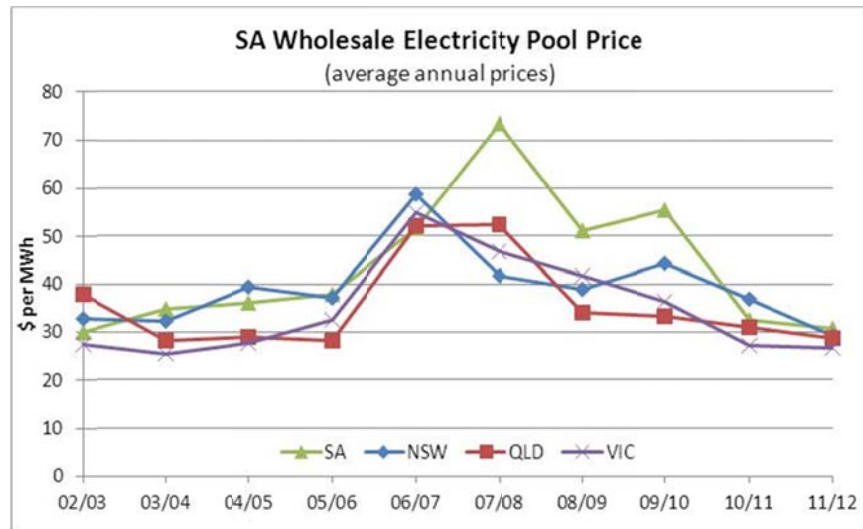
The Commission regularly monitors the status of South Australian electricity market. Through this ongoing monitoring, the Commission has identified that liquidity in the electricity futures contracts market has improved and it appears that more reliable evidence of forward wholesale electricity prices has become available.

In 2010, liquidity in the South Australia wholesale electricity market was relatively low, with trading volumes at approximately 38 percent of underlying demand for electricity. That improved to approximately 60 percent of underlying demand in 2011 and is projected to reach 90 percent in 2012. Further, in 2010 contracting was generally limited to that year, with little or no trading for the two forward years after then. In contrast, stronger forward trading for future years is now being seen in South Australia.

While not conclusive at this point, the Commission considers that there is prima facie evidence to suggest that those forward wholesale electricity prices may be lower than the approximately \$94 per MWh LRMC estimate used to determine the initial electricity standing contract price.

Figure 1 below highlights that annual pool prices across the NEM regions have come off the highs recorded almost four years ago (since 2007/08) and have now reverted to levels around \$30 per MWh. As noted earlier, it is important to understand that pool prices alone do not reflect the efficient costs of wholesale electricity purchases necessary to serve the standing contract customer load (refer Box 1): those costs are derived by estimating both the likely prevailing pool prices for the price path period and the estimated costs and outcomes of a prudent and efficient hedging strategy in respect of those pool prices for that period.

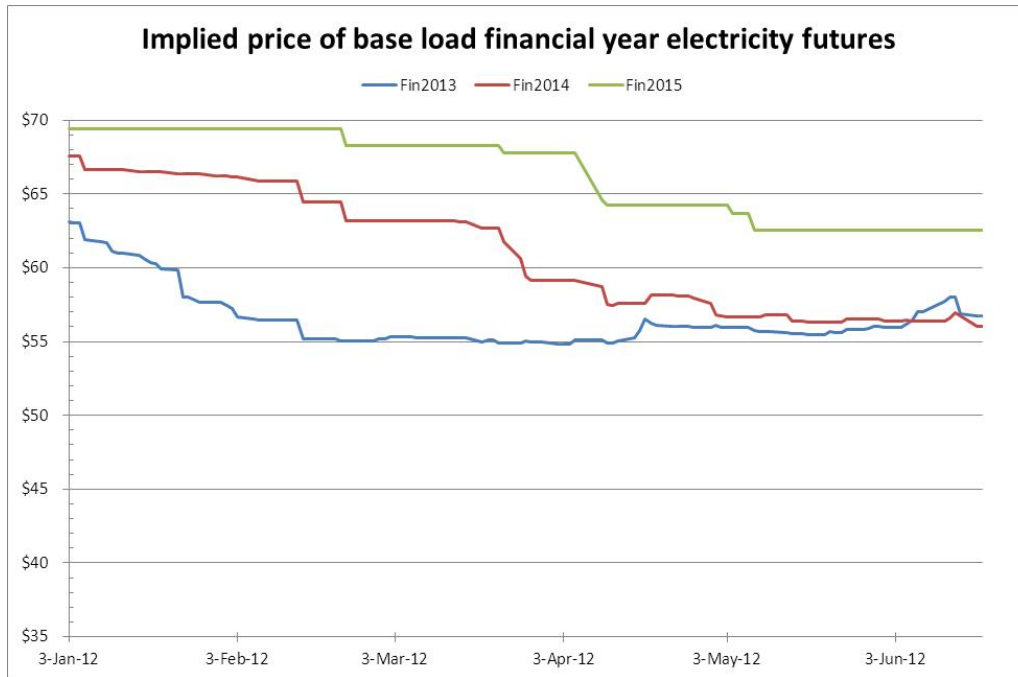
Figure 1: NEM Pool prices



Source: AEMO

Figure 2 shows the implied future price for South Australian base load electricity contracts for delivery over the next three financial years.

Figure 2: Implied future price for South Australian base load electricity contracts



Source: d-cyphaTrade

An examination of the peak, base load, off-peak and \$300 cap¹⁴ electricity futures prices for delivery in the next three financial years (as at 19 June 2012) are:

Table 3: Implied future wholesale electricity contract prices

Implied future prices (\$ per MWh)	FY2013	FY2014	FY2015
Peak load (7am-10pm)	\$74.89	\$66.50	\$55.83
Base load (24 hr)	\$56.71	\$56.01	\$62.57
Off-peak load (10pm-7am)	\$43.10	\$48.11	\$67.64
\$300 Caps for Jan-Mar quarter	\$22.65	\$24.35	n/a

Source: d-cyphaTrade

The Commission recognises that the wholesale costs for standing contract customers are likely to be higher, due to the load profile of those customers. Forward contract prices

¹⁴ A cap contract is used to hedge against the risk of high pool prices. A \$300 cap product allows a retailer to limit its wholesale cost exposure to \$300/MWh during times at which the pool price exceeds that amount.

reflect the cost to serve the entire South Australian load and do not reflect the cost to serve standing contract customers specifically.

The load profile for standing contract customers is dominated by residential demand, which has significant peaks and troughs as compared with commercial and industrial customers. Therefore, the forward wholesale electricity purchase costs that a prudent and efficient retailer will incur to serve standing contract customers is likely to be higher than average market-wide forward contract prices might suggest.

Nevertheless, while the Commission recognises that potential, the difference between currently available market-based evidence as to forward wholesale electricity contract prices and the LRMC of \$93.93 per MWh assumed in the price determination is significant. This potential difference is particularly notable, given that future wholesale contract prices incorporate the costs of emissions pricing under the Clean Energy Act, whereas the LRMC of \$93.93 per MWh did not.

Therefore, the available evidence suggests that there is merit in further investigation of the wholesale electricity cost allowances under the price determination.



4 QUESTIONS

Having regard to the information presented above, the Commission is investigating the South Australian wholesale electricity market to determine whether or not the forward cost of wholesale electricity is now materially lower than the WEC allowed by the Commission in the price determination. In that investigation, the Commission will consider all relevant evidence available to it and will seek information where necessary from market participants and others. To assist the Commission in its task, it is seeking submissions from all interested stakeholders.

While stakeholders may provide any information they consider relevant, it should be noted that the Commission is focused on the matter of wholesale electricity costs.

The questions below indicate the key areas where stakeholders may wish to focus their attention in providing submissions to the Commission. To provide maximum benefit, submissions should provide reasons and attach supporting data. Confidential information should be clearly identified.

- 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?*
- 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?*
- 3. If so, should the Commission change the WEC component of standing contract prices?*

5 NEXT STEPS

Given the significance of its standing contract price setting role, the Commission is seeking public comment on the issues raised in the Discussion Paper, and any relevant related issues, in order to ensure that it has the best available evidence to draw on in making and reporting any findings.

Submissions should be provided to the Commission by **Wednesday, 18 July 2012**. Details on how to make submissions are provided on the inside page of the front cover of this report.

Following its consideration of those submissions, the Commission will prepare a report to be released by the end of September 2012, setting out the Commission's findings.

While the Commission does not yet have any views on the outcomes of the current investigation, to provide certainty to stakeholders it notes that, to the extent that it finds cause to revisit the terms of its price determination in relation to WEC (that is, if its findings are determined to constitute "special circumstances" for the purposes of the Electricity Act), the Commission may also make a further price determination to take account of those findings. If that were to occur (which is yet to be determined), the Commission will issue a draft price determination at the time of releasing its report and finalise the price determination process in December 2012.