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**Nathan Petrus**  
**Director, Pricing and Analysis**  
**Essential Services Commission of South Australia**  
**GPO Box 2605**  
**Adelaide SA 5001**  
**27 August 2012**



Dear Nathan,

This letter is a follow-up to the submission by AGL Energy Ltd (**AGL**) to the Essential Services Commission of South Australia (**Commission**) *Electricity Standing Contract – Wholesale Cost Investigation – Discussion Paper*, 20 June 2012 (**Discussion Paper**). A number of issues were raised by stakeholders in their submissions to the Discussion Paper which AGL believes require further comment. In this letter we have identified the key issues raised in the submissions and addressed each of these individually.

## **1 Role of standing contract price in a competitive market**

SACOSS has argued that the existence of headroom in the current standing contract tolerance band has not delivered value for South Australian customers.<sup>1</sup> AGL highlight that in a competitive market, the role of a standing contract price is to provide a cap to market prices, not the lowest or the most efficient price. In addition, it is important to acknowledge the relationship between standing contract prices and market contract prices, and how competition has developed in the retail energy market. Competition in the energy market is based on discounting – without the capacity to discount or the headroom, it will be difficult to induce retailers to produce innovative products and offers, and therefore for customers to switch.

The relevance of headroom to the viability of market contract should not be underestimated because what happens to the regulated price will affect market contract prices. The majority of customers, 77% of South Australian customers, have entered into market contracts. As long as prices continue to be regulated, headroom is a necessary component in the regulated price in order for competition to develop and continue. In the absence of headroom, it is unlikely that retail competition will exist, as is the current situation in the ACT.

The risk to competition by reducing levels of headroom in the existing standing contract price cap is significant because retailers have different strategic drivers and business models. Some retailers may aim for lower net margin targets whilst, at some times, other retailers may be more intent on achieving customer number targets at the expense of margins. Retailers also have different business models, given the range of marketing methods. Ultimately, consumers on market contracts are a beneficiary of this competition. It is unreasonable to expect that a regulatory authority will be better placed to set an appropriate price.

Competition has clearly delivered lower retail prices for customers on market contracts as seen by the recent One Big Switch campaign. Competition ensures that consumers face

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<sup>1</sup> SACOSS, South Australian Council of Social Service Submission on the Electricity Standing Contract – Wholesale Electricity Costs Discussion Paper, July 2012. Page 6.



lower prices over the long run compared to the counterfactual. For 10 years, consumers in South Australia (SA) have had the choice to shop around for the best offer from several retailers. Customers who are concerned with the level of prices should be accessing the range of market offers available. It is clearly not in the interest of customers on market contracts if competition is lessened.

## 2 Regulated WEC methodology and data

The submissions to the Commission have proposed a number of methodologies and data sources that could be used to calculate a regulated wholesale energy cost (WEC). Typically these approaches rely on sampling spot prices or short-term contract prices to develop a proxy of a retailers' cost of energy to supply a small customer. AGL remains of the view that using long run costs rather than relying on short run market dynamics is the most appropriate approach for setting the tolerance bands for the standing contract price in the RPM. The rationale for this approach has been discussed in detail in Appendix I to the AGL Submission to the Discussion Paper "*When does retail price regulation become distortionary?*", *AGL Applied Economic and Policy Research, Working Paper No.20 – Regulatory Distortions*".

### 2.1 Retail wholesale energy risk management

Submissions to the Commission have raised a number of issues about the most appropriate data source that a regulator should use to estimate a retailers' WEC. Stakeholders have sought to identify a single source of data on energy costs that a retailer would be most exposed to. By attempting to set an 'efficient' WEC based on a single source of data, AGL is concerned that this 'one-size fits all' approach effectively ignores the manner in which retailers manage their wholesale energy risk, and runs the risk of producing a market comprised of homogenous business models incapable of creating a competitive market.

Retailers are required to manage wholesale energy risk exposure within predetermined, board-mandated limits. In general, these policies specify the level of hedge cover required and the resulting exposure to which the retailer should be exposed. Retailers, such as AGL, provide information to investors on the level to which they will accept certain risk exposures in managing their wholesale energy portfolios. For example, AGL regularly provides information on the company's 'Electricity Hedging Policy' as part of updates to the market.<sup>2</sup> The primary risk these policies address is the level of exposure that a retailer will accept to spot market electricity prices. This is designed to limit a retailer's exposure to the spot market during high price periods. However, even with the existence of these policies retailers can still at certain times be exposed to volatile pool prices, as was the experience of AGL in February 2011.<sup>3</sup>

Retailers have a range of strategies available to them to manage the price and volume risk associated with supplying electricity to a portfolio of small customers. Retailers can manage their supply-side risk using the following:

- Physical generation;
- Power Purchase Agreement (PPA);
- Futures market contracts;
- 'Over-the-counter' contracts; and
- Range of other financial instruments used to manage price risk associated with spot market outcomes i.e. weather derivatives.

Retailers seek to manage their risks at an efficient cost and one of the most effective ways to do this is to diversify their supply sources. A retailer will manage a portfolio of supply sources by balancing the cost of different instruments against their risk management requirements. For example, large retailers would not rely solely on short-term market

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<sup>2</sup> AGL Energy Ltd., 2012 Full Year Results (12 months to 30 June 2012). Slide 51.

<sup>3</sup> AGL Energy Ltd., ASX and Media release – Weather events to reduce AGL's 2011 underlying NPAT by \$30 million to \$35 million. 7 February 2011.

contracts (i.e. futures market) and would likely be required by board mandated risk policies to also have longer-term supply agreements in place (i.e. PPAs). Conversely, smaller retailers may well use only short dated contracts. This diversity in business models ensures that the market remains competitive in the long run and throughout the wide variation in energy market business cycles.

## 2.2 Spot market price approach

### 2.2.1 Retailer exposure to spot prices

As part of the SACOSS submission to the Commission, a report from CME Carbon + Energy Markets (**CME Report**) has been provided as Attachment 2. In the CME Report, retailers' wholesale energy costs are discussed in relation to the use of forward contracts to minimise spot market risks. The report states that "AGL is substantially "vertically-integrated" in retailing and generation in South Australia and hence hedged against spot prices (after adjustment for transmission losses, its retail business will pay the same spot price for electricity as its generation business receives)".<sup>4</sup> The conclusion that a vertically-integrated retailer with sufficient physical generation to cover its small customer load will primarily be exposed to spot prices is not correct. There are a number of issues which invalidate this conclusion:

- CME appear to have assumed that the make-up of the retailers' physical generation capacity exactly matches their base, off-peak and peak hedging requirements as determined by their board-mandated risk policy. This is obviously impossible for any retailer to practically achieve;
- As retailers physical generation capacity will not perfectly match their load requirements they will seek to optimise their hedging position. This will require retailers to use a mix of other strategies to most efficiently hedge their load;
- Retailers that hedge their load will pay a premium above the spot price in order to manage the risk associated with the hedge;
- Typically retailers will not hedge their small customer portfolio in isolation to the broader customer base. The benefit offered by a diversity of load will be different for each retailer based on the type of customers they supply;
- The intermittent nature of the output of some generation plant, such as wind farms, means that their output cannot be relied upon as a 'firm' hedge, and therefore other complementary hedging strategies also need to be used; and
- No retailer, or generator, will invest in plant on the expectation of spot prices alone. As we noted in our original AGL submission (see Appendix II) the notion that generation plant can raise finance on the basis of spot prices and short dated contract prices is simply not correct and is directly at odds with market evidence.

SACOSS has noted that retailers in SA have over recent years used physical generation as part of their hedging strategies.<sup>5</sup> SACOSS has interpreted the dominance of vertical integration as a market response i.e. physical hedges are obviously more cost effective for retailers than contract based hedges. This conclusion appears to be drawn from a number of other assumptions: i) retailers only consider short-term cost when hedging retail customer load; and ii) retailers have no requirement to diversify their portfolio in line with predetermined risk policies. These assumptions are obviously incorrect. While a retailer will undoubtedly seek to minimise their wholesale energy costs, this is constrained by the level of spot market risk exposure they are willing to accept. The decision to invest in plant or to write long-dated PPAs is, rather a response to the tangential risk of recontracting risk. In the same way that Government's issue 10 year bonds (which are demonstrably higher cost than short dated bonds in a contango market) to avoid liquidity shortfalls and recontract pricing risks, retailers are motivated to mitigate the same market liquidity and recontract pricing risks.

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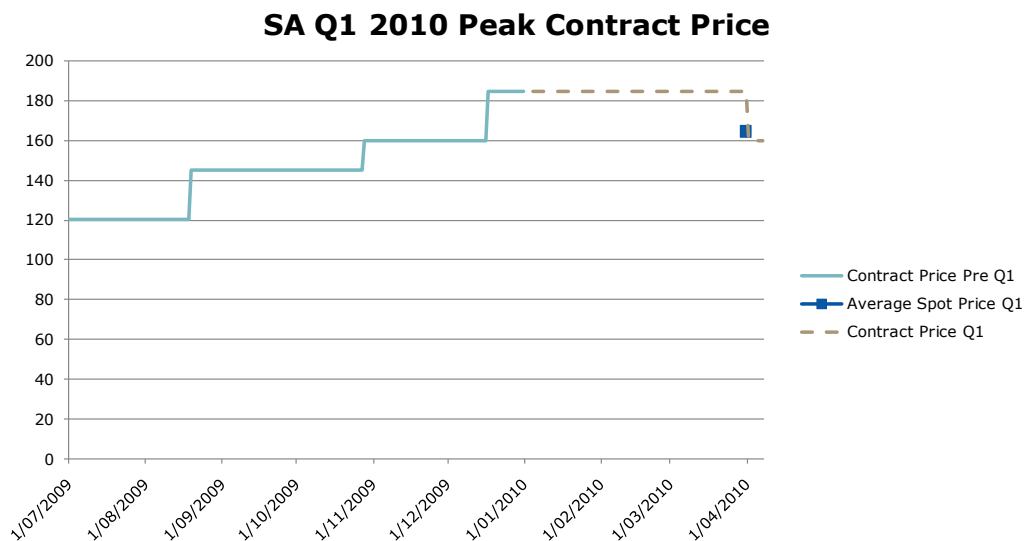
<sup>4</sup> SACOSS, South Australian Council of Social Service Submission on the Electricity Standing Contract – Wholesale Electricity Costs Discussion Paper, July 2012. Page 15

<sup>5</sup> Ibid. Page 14-15.

The CME Report also argued that despite illiquidity in the SA futures market Q1 weighted average contract prices have generally been an accurate predictor of Q1 spot prices, except in 2008 and 2012. This argument is then used to support the proposal that spot prices can be used as a reliable indicator of a retailer's exposure to contract prices. That the contracts were not accurate predictors in 2008 and 2012 is sufficient evidence that such an approach lacks any credibility at all. This argument relies on selected data. By comparing average spot prices and average futures prices ignores the risk managed by retailers, and therefore the costs to retailers and their customers associated with the changes over time in futures prices. As noted earlier, a typical retailer's risk policies will require it to hedge its exposure gradually over time leading up to a particular period. Therefore, it is highly unlikely that the overall cost for a retailer's hedge cover will reflect the average spot price. It also assumes that futures contracts are the sole instrument used to manage risk in a large and sophisticated market.

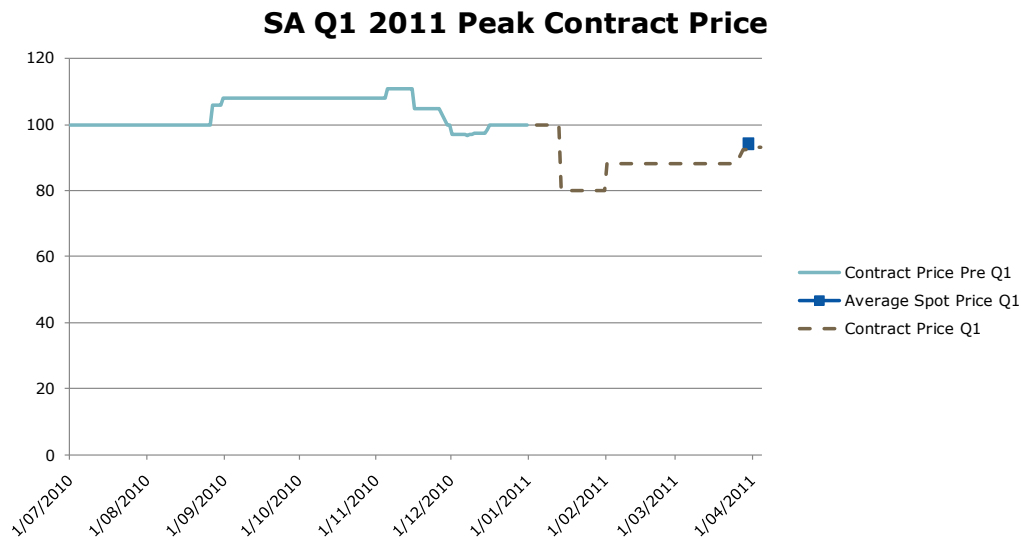
The risk exposure of retailers over time from changes in contract prices are clearly demonstrated in Figure 1 – 3. Depending on which point-in-time a retailer hedges will define its hedging cost, rather than an average over the entire period of trading. Whilst the contract price will tend toward the spot price over time, this doesn't mean that a retailer's costs will follow suit.

**Figure 1 – SA Q1 2010 Peak Contract Price**



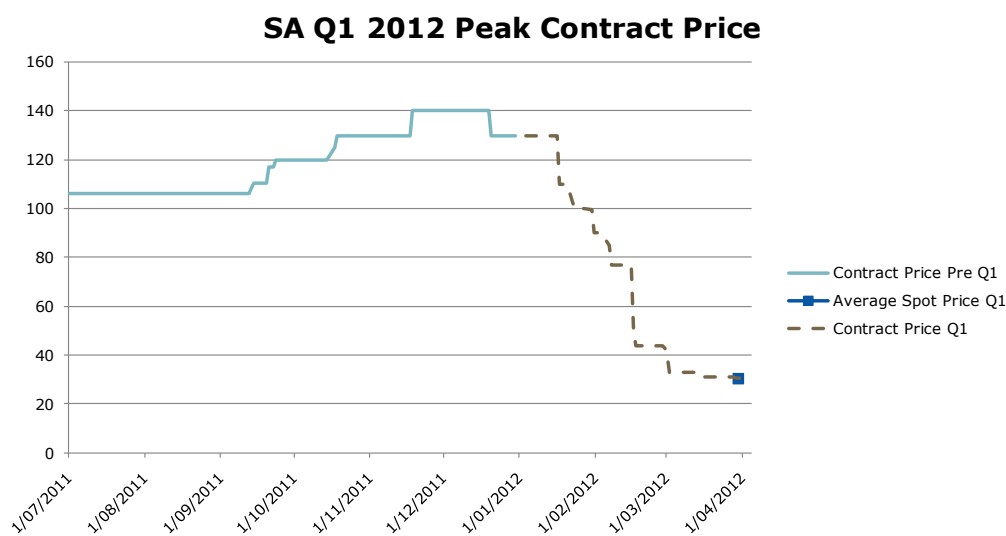
Source: d-cypha Trade Database (August 2012)

**Figure 2 – SA Q1 2011 Peak Contract Price**



Source: d-cypha Trade Database (August 2012)

**Figure 3 – SA Q1 2012 Peak Contract Price**



Source: d-cypha Trade Database (August 2012)

### 2.2.2 South Australia spot market prices and generator market power

The CME Report suggests that the exercise of market power in the SA region of the NEM has resulted in higher spot prices than would otherwise be the case, and that if spot prices are used to calculate the WEC then the final WEC allowance should be adjusted for the exercise of market power.<sup>6</sup> The issue of market power in the NEM has been considered extensively in recent years and AGL note the following:

- As part of the Australian Energy Market Commission's (AEMC) analysis pertaining to a proposed rule change to address potential market power in the NEM, NERA Economic Consulting explained that *Market Power* is present when average spot

<sup>6</sup> CME, Electricity Standing Contract – Wholesale Cost Investigation. Advice to the South Australian Council of Social Service, July 2012. Page 16

prices are persistently above the long run marginal cost of adding capacity and when no new plant is added in response, such that average prices are able to be sustained at those levels. In general terms, it takes no less than 2-3 years to plan and build generation plant. Accordingly, to identify an episode of the exercise of substantial market power, one must be able to identify a period in which energy prices are sustained at levels above long run costs, such that pure economic rents are being extracted over a period of 2-3 years.<sup>7</sup>

- It is entirely disingenuous to identify a quarterly reporting period where a price excursion occurred, and then conclude that substantial market power exists, particularly when preceding and subsequent periods exhibit sub-economic prices relative to the long run marginal cost of generation plant. Modelling in Simshauser (2008) is perfectly clear in that if all generators in the NEM bid purely on the basis of short run marginal costs, even with VoLL events occurring but not exceeding the .002% reliability threshold, generating plants would recover just 57% of their cost structures in SA and VIC. Put another way, under these conditions, almost all plant would face a complete financial collapse.<sup>8</sup>

### 2.2.3 Spot market price approach implementation

AGL considers that using spot prices to determine regulated prices would be a particularly dangerous development for the National Electricity Market and is completely inappropriate because, as noted earlier, retailers risk management policies prohibit material exposure to spot market prices. In addition to the policy risks associated with such an approach, AGL also notes that attempting to implement this approach would be fraught with issues which would result in increased risk for retailers and consumers. These risks include:

- Modelling electricity spot prices is an extremely difficult and often inexact exercise. The output from such 'black-box' models is highly dependent on a complex range of assumptions and inputs. The suggestion that a standing contract price cap should be solely based upon the results of one single model would introduce an intractable level of regulatory risk into a workably competitive market. And the significance of this risk should not be underestimated. As noted in Appendix I of the AGL Submission, the outcome of setting market caps below the costs faced by electricity retailers resulted in the dire circumstances experienced in California in 2000 and Western Australia in 2010<sup>9</sup>;
- Such an approach would be completely incompatible with the manner in which investments in the market are facilitated as noted in Appendix II of the original AGL Submission;
- The proposal of a 'true-up', following a period of retail prices set based upon forecast spot prices, would not reduce the risks for retailers, it would very clearly heighten them. A period of high spot prices would expose retailers to significant losses, and under this proposal a retailer would not be able to recoup these costs until the next period. Bankruptcies under such conditions would be entirely predictable. No retailer has access to unlimited funding, and the cost of funding even credible market cycles would dramatically heighten the business cost structures of most retailers; and
- The continuing deterioration of the SA NSLP load factor, highlighted in the SACOSS submission, can be expected to exacerbate the existing levels of volatility in the SA region, in particular with the increased penetration of solar PV installations across the State. Basing the standing contract price on these volatile pool prices would increase the risks for retailers in the short-term, and could introduce greater volatility into the standing contract price.

<sup>7</sup> NERA Economic Consulting, Potential generator market Power in the NEM. A Report for the AEMC. 22 June 2011.

<sup>8</sup> Simshauser, P. the dynamic efficiency gains from introducing capacity payments in the National Electricity Market, Australian Economic Review, 41(4): 349-70.

<sup>9</sup> AGL Energy Ltd., Electricity Standing Contract – Wholesale Cost Investigation, Discussion paper, AGL submission to ESCOSA, 19 July 2012. Appendix 1, Page 9-10

In addition, to the technical challenges of setting the WEC based on spot prices, AGL maintains that this approach would also have the effect of undermining the ability of retailers to make long-term investments in new generation capacity. In Appendix II of the AGL Submission to the Discussion Paper it is clearly demonstrated that a merchant generator relying on spot prices will not be financially viable.

Submissions have also argued that no new generation is needed imminently and therefore security of supply is a second order issue.<sup>10</sup> This issue was recently raised by the Queensland Competition Authority. However, Frontier Economics noted in early 2012, the obvious flaw in such thinking:

*"The QCA has noted that market prices are lower than the costs of generation. They have used these circumstances to justify a move away from using the LRMC of generation for setting the wholesale cost component for notified retail prices. While the QCA acknowledge that the use of the LRMC provides superior security of supply outcomes they are not concerned about the short term consequences given the abundance of spare generation capacity. The QCA seek to provide some economic justification for not using LRMC because of their belief that retailer costs only reflect the cost of purchasing hedging contracts and do not include the cost of building or acquiring generators, and because LRMC cannot reflect market conditions (such as occurs in an oversupplied market).*

*The key problem with the QCA's position is that retailers' energy purchase cost reflects a combination of the costs of plant that they build to supply their customers, the costs of power purchase agreements (PPA) they buy to secure power for customers, spot purchases as well as the costs associated with purchasing (and selling) hedging contracts. That is, retailers' energy purchase costs are not just hedging costs as the QCA's approach explicitly assumes. If the QCA ignore these other energy purchase costs they will threaten the financial viability of retailers. At the very least, the adoption of a tailored regulatory approach simply for the purposes of taking advantage of 'current market conditions' is short sighted as investors will not forget the regulatory threat of adopting this approach when considering future investments. Investors will be wary of making further long term commitments to the Queensland energy market and this will result in a loss of competitiveness in the longer term.*

*Aside from the fact that the QCA's proposals do not reflect good regulatory practice their conclusions are based on an unsound understanding of well established regulatory economics. In particular, they misunderstand the basic economic concept that LRMC measurement techniques can take account of the key drivers of market prices such as the balance of supply and demand."<sup>11</sup>*

## 2.3 Forward contracts approach

SACOSS has argued that in setting the WEC greater weight must be given to forward contract prices "regardless of liquidity concerns". As noted in a number of the submissions to the Commission the impact of the lack of liquidity on forward contract prices is evidenced in the data provided by the Commission in Table 3 of the Discussion Paper which shows prices for 2015 off-peak contracts as higher than prices for peak contracts.<sup>12</sup> This clearly brings into question the reliability of the d-cypha trade data as a basis for estimating the WEC for a retailer.

Data is also presented in the submissions to demonstrate that the overall volume of trading in SA forward contracts reported by the Australian Financial Markets Association (AFMA) is sufficient to ensure that the contract price is a reliable indicator of the hedging cost for retailers. AGL's submission clearly demonstrated the illiquidity of the SA forward contract market, even when taking into account both the volume of futures contracts and evidence relating to OTC contracts. AGL maintains that the most representative measure

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<sup>10</sup> Uniting Communities, Wholesale Energy Cost Review – ESCOSA, 22 August 2012. Page 10.

<sup>11</sup> Frontier Economics, Wholesale energy costs for regulated electricity prices, June 2012.

<sup>12</sup> Origin Energy, Electricity Standing Contract – Wholesale Electricity Cost Investigation: Discussion Paper, 18 July 2012. Page 4.

of hedging activity in the forward market is open interest and currently this is only a mere fraction of the NSLP demand in coming years.

SACOSS has suggested that on the basis that there are indications that the OTC market is relatively liquid and generators can be expected to be seeking to contract output it would be SACOSS's view that "exchange traded forward contracts are unlikely to understate the costs to which a prudent retailer is exposed".<sup>13</sup> For the reasons discussed above relating to the requirement for retailers to manage their risk beyond short-term instruments and the lack of liquidity in the forward contract market, AGL is of the view that using short-term futures contracts are highly likely to incorrectly reflect the costs for a prudent retailer.

## 2.4 LRMC approach

There are some submissions which question the basis for using LRMC to set the WEC in the standing contract price tolerance band. The key concerns raised are discussed below:

- SACOSS has argued that because the LRMC may not accurately represent the price of electricity in the NEM for retailers at a specific point-in-time then it should not be used to set the WEC. The policy rationale for using long run costs to set standing contract price caps, rather than relying on short run market dynamics has been discussed extensively in Appendix I of the original AGL Submission;
- If an LRMC approach is used, submissions argue that using the NSLP to calculate WEC for a small customer is not the appropriate load to use. The system load may be considered an option, however using this load profile would not adequately account for the different consumption patterns of small customers compared with the entire system profile. This approach would be inconsistent with the intent of determining the WEC for a retailer serving a small customer base in SA; and
- Some submissions have argued that the assumptions and inputs that underpin the calculation of the LRMC are arbitrary and do not accord with current market conditions. A specific criticism has been made of the use of a 'Greenfields' approach to modelling the LRMC. AGL consider a 'Greenfields' approach to calculating the LRMC to be appropriate in setting a default tariff cap because it accounts for the marginal cost of capital costs of generation and the marginal generation plant(s) required to meet load. This is essential in ensuring that the default prices can cover the long-term costs of developing generation to ensure system security.

## 2.5 Hybrid approach

SACOSS has requested that the Commission consider calculating the WEC using a hybrid approach which comprises a "forward looking and backward looking consideration of wholesale costs that considered a combination of spot, contract and LRMC estimates appropriately weighted".<sup>14</sup> This once again runs a high risk of prescribing how retailer businesses should be run, and makes no economic sense whatsoever. The notion of using historic prices could also be dangerously applied. For example, historic spot prices have absolutely no relevance to the future risks faced by retailers and their customers.

A 'portfolio' approach might be thought to be more reflective of a retailer's diversified hedging approach. But this assumes that all retailers adopt a singular approach. Providing regulatory incentives to do so will clearly limit the extent of retailer business models, and in the event stifle competition and product innovation. It is not reasonable to expect a regulator to define an optimal portfolio given the wide range of business models and risk appetites.

AGL reiterates that due to the limitations of this 'hybrid approach' for setting the standing contract price, as part of the existing RPM tolerance band, that the current use of an LRMC approach to set the WEC is the most appropriate methodology.

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<sup>13</sup> SACOSS, South Australian Council of Social Service Submission on the Electricity Standing Contract – Wholesale Electricity Costs Discussion Paper, July 2012. Page 18

<sup>14</sup> Ibid. Page 12.



### **3 Level of competition in the SA retail market**

From AGL's perspective, the retail energy market in SA is already highly competitive. Aside from the active churn rate of 22%, AGL's market share has declined from 100% in 2003 to about 50% currently. This competition has been underwritten by policy developments, such as the RPM methodology, which have provided retailers with the ability to develop competitive market contract offers. AGL is of the view that discussing how to 'transition towards a competitive market' is outdated because the market is already highly competitive.

Market contracts are currently offered by various energy retailers with discounts spanning a wide range – which also provides evidence that the market is competitive.

The AEMC has previously concluded that the SA market is workably competitive and competitive conditions since then have become even more intense in AGL's experience. Regardless, the starting position for any analysis should be the current position. Is it desirable from a policy perspective to reduce the current level of competition?

The standing contract price plays an important role in any market, not just electricity. But before concluding that it requires any form of adjustment, due consideration and quantitative evidence must be considered on the level of customer switching, the level of contract discounts available, the intensity of rivalry amongst competing retailers, and the level of customer inertia. And if customer inertia is considered to be a residual issue worthy of attention, it is better dealt with through education and switching campaigns, not through intrusive price regulation.

### **4 Conclusion**

In summary, AGL is concerned that a number of the submissions to the Commission ignore the broader policy objectives of setting a standing contract price within a competitive retail market by focussing solely on how to calculate a WEC based on short-term market data. This is entirely inconsistent with facilitating energy retailer competition, innovation in product offerings, and the flow of investment into the industry.

The standing contract price used in the RPM cap and floor should represent workable limits within which a market contract price can move. AGL is of the view that the approach of using the LRMC of supplying a small customer to set the WEC in the current price determination is appropriate, and in the long-term interests of both consumers and industry alike.

The level of standing contract prices has an impact on the capacity for retailers to offer discounts. The SA electricity market is highly competitive with several retailers offering market contracts with significant discounts. A majority of customers in SA, 77%, have benefitted from competition by taking up the market offers. After 10 years of full retail competition (FRC), customers on standing contract prices who are price sensitive should be accessing the range of discounted market offers.

If you have any further queries with regards to this submission please do not hesitate to contact me or Andrew Dudgeon (02 9921 2612).

Yours sincerely,

Elizabeth Molyneux  
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