



EnergyAustralia

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Dear Nathan

Response to the ESCOSA Wholesale Energy Cost Investigation Review – Draft Determination

EnergyAustralia welcomes the opportunity to make a submission to the Essential Services Commission of South Australia (the Commission) Draft Determination on the wholesale electricity cost (WEC) investigation for the electricity contract standing regulated electricity prices.

EnergyAustralia is one of Australia's largest energy companies, providing gas and electricity supply to over 2.7 million household and business customers. We used to be known as TRUenergy. EnergyAustralia owns and operates a multi-billion dollar portfolio of energy generation and storage facilities across Australia including coal, gas and wind assets with control of over 5,600 MW of generation in the National Electricity Market.

We have been involved in retailing and generation in South Australia for many years and have a firm understanding of the costs of supplying electricity and the conditions that will lead to the best competitive and pricing outcomes for small customers in South Australia. In our view, the WEC allowance in the electricity contract price is already set at an appropriate level and there are no long-term benefits in cutting this allowance in response to temporary, low wholesale prices. To base the WEC allowance on the Electricity Purchase Cost (EPC) approach or some other approach based on the short run marginal cost (SRMC) of generation would mean that the real costs of supplying electricity would not be effectively covered. This would place financial pressure on retailers resulting in a detrimental effect on retail competition, and over time could negatively impact the sustainability of the industry.

As outlined in our previous submissions, we recommend retaining a long run marginal cost (LRMC) floor approach to determining the WEC allowance. This approach better reflects the efficient costs of retailers and ensures that the retail market continues to transition to competitive levels. A competitive retail market will deliver the best long-term outcome for all South Australian customers.

If you would like to contact me about this submission, please call me on (03) 8628 1242.

Yours sincerely

Melinda Green
Regulatory Manager - Pricing

1. Introduction

We acknowledge the price pressures on end use consumers of electricity in South Australia. However, we consider it unfortunate that in response the Commission has proposed a dramatic cut in the WEC allowance by deciding to use a purely market or EPC-based approach in determining the WEC allowance, rather than a LRMC-based approach. The key driver of electricity prices over the past number of years has been rising network costs. At EnergyAustralia, we support the retention of LRMC as the floor price in determining the WEC allowance in the South Australian market. Customers, retailers and generators all benefit from the LRMC-based approach as this ensures that investment signals are sufficient for generators, that retailers can maintain market activity and compete effectively and that costs and cost fluctuations are minimised for customers in the long-term.

In its Draft Determination, the Commission notes that setting the standing contract price at a sufficient level (including an amount for headroom) will support the transition to a more competitive market, which is in the long-term interests of customers. In the Draft Determination, the Commission explored the link between prices sought by parties trading in the wholesale market and the energy costs used by retailers when setting prices. On this point, we consider that the Commission has overlooked the way a retailer hedges its mass-market load and has incorrectly assumed that retail pricing reflecting SRMC-based energy costs is the most efficient approach. The recent, low wholesale prices are not a true reflection of the current energy costs of retailers. Retailer's wholesale costs come from a variety of sources and retailers must pay a price for generation that also covers capital costs. We support the retention of energy costs in the WEC allowance that are no lower than the LRMC of generation. A long-term approach top energy costs would support competition amongst retailers and would naturally put downward pressure on retail prices and ensure customers are exposed to the most efficient retail price.

Even if an EPC-based approach were preferable, we illustrate below that current wholesale market conditions in South Australia are not conducive to estimating a reliable EPC value. The South Australian market is notoriously illiquid and continuing uncertainty around carbon policy makes it difficult to rely on exchange traded future prices as a true reflection of wholesale costs. We do not foresee market liquidity improving to a level that would make it sensible to use an EPC-based approach until at least 2014. However, even if the market was more liquid we still believe that both the market-based and LRMC-based costs should inform the setting of the WEC allowance.

Despite the Commission's arguments to the contrary, having a special circumstances review of the WEC allowance during the regulatory period does contribute to regulatory risk. This is especially true when the Commission intends to use a new methodology (marked-to-market) to calculate the EPC, which relies on wholesale market prices from just one day of trading. The liquidity in the market at present is at a similar level to what it was at the beginning of the regulatory period. Therefore, we recommend that the Commission consider making no change to the WEC allowance at this time.

When making the Final Determination, we encourage the Commission to consider the operational costs to retailers resulting from an additional price change event and flow on impacts discounts and marketing activities. We recommend that any change of WEC allowance should be effective from July 2013 rather than January 2013. Although prices may drop in January under the Draft Determination, network prices will likely lead to an overall increase in prices in July 2013. This will be confusing to customers and will send mixed price signals.

Altering the approach to calculating the WEC may benefit customers in the short-term, but it is very unlikely to be the best approach in the long-term. There are other targeted methods retailers and government can (and do) use to assist vulnerable customers. For example, we place hardship customers on discounted, market offers and payment plans; offer energy efficiency advice; and discuss financial assistance options available. Furthermore, the South Australian Government has targeted concession schemes to help the most vulnerable customers. The Commission is instead best placed to help customers with energy prices over the long-term. Making short-term decisions will hinder energy market sustainability and ultimately lead to all customers paying higher prices.

2. The choice between LRMC and EPC

2.1. The effect of energy cost methodology on price setting, competition and investment

In countering the position of retailers, the Commission argues strongly that reversion to an EPC-based approach is justified as it best reflects how prices are set in competitive retail markets, and would lead to an efficient and competitive market in the long terms interests of customers. They also argue that an EPC-based approach provides the most well timed investment signal to generators.

Our summation of the Commission's arguments around retail price setting in the Draft Determination¹ is:

- In competitive markets, the wholesale energy cost will reflect the short run marginal costs of electricity generation (plus a risk premium) for the period (pg 30-31)
- These short run wholesale costs will best represent retailers efficient costs of supplying energy to customers, even though they also have long term supply arrangements (pg 29-31,33)
- When retailers set retail prices, the relevant energy costs to consider are short run wholesale costs (pg 30, 33)
- Prices in competitive retail markets should (and do) reflect the expected SRMC for the pricing period, not average costs (pg 31, 33, 39)

Whilst we acknowledge that wholesale market **prices** often generally reflect SRMC (plus a risk premium) and that wholesale **costs** to retailers can fluctuate from year-to-year, we believe that the Commission has missed a subtle but important point around the link between wholesale costs and retail price setting in a competitive retail electricity market.

2.1.1. The nature of the wholesale costs faced by retailers

We don't believe that retailers are willing to supply the mass-market contract load at a price, which is informed by the current price of hedging contracts as claimed by Frontier Economics.² They assert that:

'the historical price paid for [wholesale] contracts should have no bearing on the price at which an efficient retailer would be willing to serve an additional customer', and ...
'retailers should price their load on the basis of marginal costs, not average costs.'

It's relevant to think of pricing for a marginal customer when prices can be readily tailored as costs change, and when a profit can be made from those customers acquired at that price offered. However, the mass-market customer base is made up of a large number of small, low value customers who can easily leave during the contract period. It is also costly to alter prices regularly for small customers as wholesale costs change.

A retailer can more readily set up new pricing deals for individual or small groups of commercial and industrial (C&I) customers based on prevailing wholesale costs at a point in time as:

- C&I customers have larger loads which are best hedged individually;
- there are fewer, high value customers allowing individualised pricing which can be agreed bilaterally (and without regulation that controls the manner in which this done or establishes a 'benchmark' price level); and
- the retailer has a much greater chance of retaining the customer for the whole contract term, as the contracts are more difficult and costly to exit.

None of these attributes applies to mass-market customers, even in Victoria where mass-market pricing is deregulated. Instead, retailers tend to view mass-market load as a long-term committed load and will usually hedge it accordingly. That is, hedging decisions are made for the whole customer base, including expected acquisitions of new customers, over a period of years meaning that the wholesale costs considered by the retailer will not reflect the current wholesale prices.

¹ ESCOSA, 2011-14 Electricity Standing Contract Price Determination, Wholesale Electricity Cost Investigation -Draft Determination (Draft Determination), Oct 2012.

² Frontier Economics, Wholesale energy cost estimates for 2012/13 and 2013/14, (Frontier Economics Draft Report) Oct 2012, pgs 25-26

In addition, for a market to be sustainable in the long run, firms need to recover their both their fixed and variable costs. Even retailers with their own generation will be seeking to achieve prices that cover the LRMC of generation. As we outlined in our previous submissions to this review, we believe that the energy costs that retailers face in supplying the mass-market load are more reflective of LRMC, therefore we maintain our position in recommending that the LRMC floor approach to setting the WEC should be retained.

2.1.2. Retail price setting and discounting

Even if we were to agree that retailer's relevant costs for mass-market customers reflected SRMC, then we don't agree that retail mass-market prices should fluctuate accordingly. It may seem obvious that retail prices should in fact vary with annual changes in wholesale energy costs. Certainly, this occurs in many markets. However, those markets are more able to respond in a timely manner to SRMC-based pricing signals. This is not true of the electricity mass-market.

In the mass-market, prices and discounts are the main levers that a retailer has in maintaining attractiveness to customers and maintaining profitability. Most retailers tend only to change base retail prices for customers once a year in South Australia. Throughout the year, it is more likely that retailers will offer a range of discounts and utilise a mix of sales and marketing channels to attract and retain customers. These changes are usually made on the overall value of the customer to the retailer and don't reflect the current wholesale prices.

Having accepted an offer of a particular discount from a retailer, many customers would be quite disgruntled if the retailer were to reduce the discount level or increase the base price. Retailers want to retain customers and so have to set prices and discounts at levels that are reasonably likely to remain profitable over the time they retain the customer.

When considering their existing mass-market customer base, a retailer is very limited in making short-term changes to pricing and discounts to any significant degree. The reasons for this are:

- Retailers have a strong disincentive to avoid changing prices and discounts too frequently as customers will complain and go elsewhere.
- It is operationally costly to change prices and discounts for a large number of existing customers.
- Although prices and discounts can be altered quickly to attract newly acquired customers, this has a negligible effect across the total customer base.
- It is more cost effective for retailers to enter into long term sales channel arrangements and sales from these cannot be quickly ramped up or down without significant cost.

Mass-market customers will benefit more from a stable or long-term average energy cost, as retailers are more able to offer higher discounts to customer and compete at consistent levels every year. By this mechanism, a more stable energy cost promotes competition and produces a downward pressure on prices over time.

2.1.3. Efficient retail price setting

Although we recognise that wholesale market prices and energy costs can and do fluctuate by a significant degree in some years, we see that it's not commercially viable for a retailer to set retail prices which fluctuate to the same level as the energy costs. That is, we believe it's more efficient overall if retail prices are relatively stable and vary to a lesser degree year-to-year than the underlying energy costs.

This is not dissimilar to the competitive and unregulated residential rental market where landlords have arrange of different types of costs (mortgage, rates, maintenance, etc.) and where tenants expect a certain level of stability in the rental price. Landlords do not alter rental prices to the same extent that mortgage costs fluctuate and this is not seen as inefficient. Not all landlords have

mortgaged properties, similarly not all retailers hedge most of their load using wholesale market contracts.

The best value for customers is achieved when retailers are confident that they understand their costs, particularly long and short-term energy costs as these make up the major proportion of a retailer's controllable costs. This confidence in cost level over a period of years encourages retailers to be less conservative in offering lower prices and higher discounts to the whole customer base as they can be confident that profitability and customer satisfaction can both be maintained. A LRMC floor-based approach to modelling energy costs is therefore preferred by most retailers as it provides relatively stable energy prices that cover real costs of supply in most situations. With an LRMC floor approach, retailers are unlikely to have to make drastic decisions to shut down sales channels, ramp up prices, and reduce discounting at short notice across the customer base or risk significant financial stress.

In the current regulated pricing environment in South Australia, retailers cannot be confident of the level of the standing contract price due to the way the Commission is considering determining the WEC allowance. This lack of confidence will drive conservative discounting and price setting behaviour by retailers and reduce competition in South Australia. Clearly, this outcome is not in the long-term interests of customers. We ask the Commission to reconsider what efficient energy pricing is in this market and if there really is a benefit to customers if retailers were to set retail prices that reflect the potentially significant annual changes in the SRMC of generation.

2.2. Long term costs & supply arrangements

We don't believe that an SRMC-based retail price does provide a suitable price signal for investment in electricity generation when required. There is significant time lag in the Commission determining a standing contract price and the end of the regulatory period. The Commission say that:

'if SRMC is less than LRMC at a point in time, an EPC-based approach would discourage investment at that particular time relative to a LRMC-based approach.'³

It's not apparent to us how the timing of the signals will align properly and avoid discouraging investment when it is required.

2.3. Change of approach mid-period

The Commission did foreshadow a possible change to a market-based approach to calculating the WEC allowance at the time of making the last electricity standing contract pricing determination (ESCPD), but to say that this mitigates the risk to retailers is incorrect. It isn't so much the reopening of the ESCPD; it is that the Commission has decided to change approach midway through the regulatory period, and to change to an EPC-based approach when market conditions still don't make it sensible to do so. This will lead to increased regulatory risk and will increase costs for retailers. Regulatory risk induces retailers to consider the possibility of future interventions by the Commission and this may dampen the intensity of competition in South Australia compared to the levels seen recently.

2.4. Insufficient liquidity

The Commission argues that liquidity in the South Australian market has improved and liquidity is now sufficient for using forward contract prices in determining an EPC. We refute this argument entirely.

2.4.1. The Exchange Traded Market

The Commission notes that the South Australian exchange traded futures contracts are typically not traded for periods beyond 12 months, but believes that the liquidity will allow the use of d-cypha data to set the WEC component. We concur that liquidity, based on traded volume, did

³ ESCOSA, Draft Determination, pg 34

improve in FY 11/12 in the exchange traded market; however, d-cypha data indicates that liquidity in the coming 12 months is very low. Table 1 shows that against an average demand in South Australia of around 1500MW that around only 22% (326MW) is hedged via futures base load swaps and caps.

Table 1: South Australia – Cal 13 futures (d-cypha as at 29/10/12)

2013	Base Swaps	Peak Swaps	Caps
Q1	219	0	227
Q2	240	0	170
Q3	195	1	50
Q4	145	0	55
Average	200	0	126

Looking at the data for the 2012 year as at the same day of the year 12 months earlier (table 2) shows total traded volumes of 479MW indicating that it was significantly easier for a retailer to hedge their market risk for Cal 12 than it has been for Cal 13.

Table 2: South Australia – Cal 12 futures (d-cypha as at 29/10/11)

2012	Base Swaps	Peak Swaps	Caps
Q1	353	5	165
Q2	534	105	35
Q3	388	0	25
Q4	285	0	20
Average	390	28	61

In combination with other data presented below, we believe this shows deterioration in the liquidity of the South Australian market over the past 12 months.

d-cypha's comments about base swaps being very liquid and efficiently priced don't appear to relate to South Australia. As they say, base futures and options are 'trading a multiple of underlying system demand in NSW, VIC and QLD (and getting better in SA)'.⁴ Based on the data presented above, we question that the market in South Australia is liquid enough that futures contracts are efficiently priced.

The Commission stated their intention to update the EPC estimate using the marked-to-market approach as close to the date of the Final Determination as possible. In doing this, Frontier would be relying on an updated view of the 2013 d-cypha data above. Nevertheless, it is hard to imagine that by the time the final EPC estimate must be made in mid December 2012 that these traded volumes will improve to a level that could be considered liquid.

We also note there seems to be a trend towards shorter ahead periods trading. For example, Q4 12 has a larger open interest than Q1 13 base contracts. This suggests that relying on a calendar year price (say Cal 13) prior to the beginning of that period (say Dec 12) could lead to prices that are not at all liquid being used to set retail prices (Q2-Q4 13 periods not liquid).

Open Interest

It is in the interests of d-cypha to promote market attractiveness by saying that liquidity is best judged by traded volumes,⁵ as these volumes are increasing at the overall NEM level. We suggest that open interest does show another important angle that traded volumes cannot.

⁴ ESCOSA, Draft Determination, pgs 47-48

⁵ ESCOSA, Draft Determination, pgs 43-44

When looking at traded volumes, intermediary purchase volumes from a generator are counted along with the following sale to a retailer. This is double counting the volume available for a retailer to buy from the generator. In our view, open interest best represents the size of the volume available for a retailer to buy, that is, it represents the sum of the volume participants are willing to sell. The low level of open interest in South Australia is another indicator that retailers are not able to source contracts to hedge much of their load.

Volatility

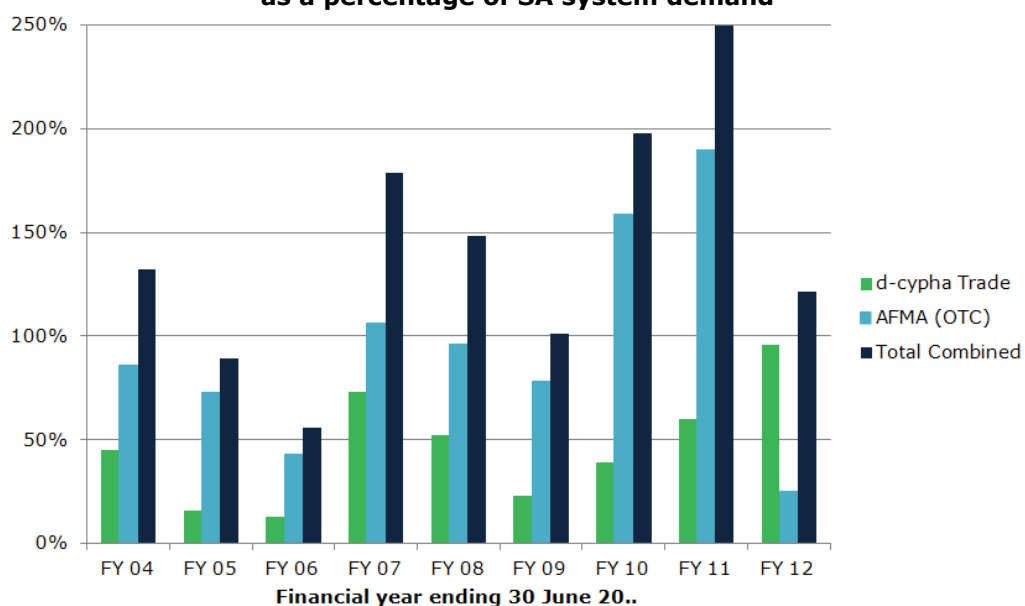
Unlike the other main state markets, the South Australian market trades occur much less frequently and the market may not trade at all for several weeks. When trades do occur, the price movements tend to be larger in South Australia around \$2/MWh rather than \$0.50/MWh as seen in other states. Combined with the lack of liquidity another of the major drivers behind increasing market volatility is the effect of the Renewable Energy Target subsidies has had in increasing the penetration of wind generation in South Australia. The presence of a larger volume of wind generators has led to spot price volatility with both price suppression occurring during high wind periods and price spikes occurring during sudden wind generator output falls. Short-term spot observations significantly affect the view of traders in pricing contracts for future periods. This could lead to a scenario of low retail prices being set based on a view of future pool price suppression by wind and then having a spot spike event due to unexpected wind reduction that also causes the future contract prices to jump higher.

Other causes of contract price volatility include the behaviour of contract intermediaries. At times, an intermediary can cause price rises for retailers if they buy contracts with a view of selling at a higher price later. This applies particularly in a tight market with few sellers that has been observed at times in South Australia during the past five years.

2.4.2. The over the counter (OTC) market

Historically the OTC market has been the preferred to the South Australian futures exchange market and has higher liquidity (as judged by traded volume as a proportion of South Australian system demand).⁶ Data shows that the OTC market virtually dried up over FY 11/12 compared to the year before. Using AFMA data published only several days after the Commission’s draft report came out, the figures 3 and 4 of the Draft Determination⁷ now show a decline in overall liquidity in South Australia in FY 11/12.

Figure 1: Liquidity of combined SA futures exchange and OTC markets as a percentage of SA system demand



⁶ ESCOSA, Draft Determination, Figure 3, page 47

⁷ ESCOSA, Draft Determination, pages 46-47

Looking further into the AFMA data, there were only 1.36 TWh of OTC swaps traded in FY11/12 for South Australian generators. Assuming a 12 month term for all swaps, this represents only 155 MW of swaps for the whole market (similarly only 60MW of caps were sold by generators). This is clearly well below the average demand for South Australia, which is usually around 1500 MW. The drop in OTC swap volumes from the previous year indicates that generators have become less willing to sell swaps especially as the wholesale swap prices have fallen.⁸ Additionally, intermediaries have almost abandoned trading in the South Australian OTC market in the last year,⁹ and all parties are only trading contracts less than 12 months duration suggesting high levels of risk aversion.

We have observed a vicious circle that as the observed contract liquidity fell, price volatility increased, and led to losses for speculators holding a losing position that then further reduced liquidity as they abandoned trading in the South Australian contract market.

2.4.3. Carbon price uncertainty

In the Draft Determination, the Commission stated that¹⁰:

'In the 2010 Electricity Standing Contract Price Determination, the Commission again departed from its practice of placing sole weight on the EPC-based approach, this time due to policy uncertainties as to the introduction of a carbon emissions pricing regime, leading to a fall in forward market liquidity.'

'...[the Commission] is of the view that the policy uncertainty has been removed, with the result that the forward market is now more liquid than it has been on every other occasion on which the Commission has used the EPC-based approach ...'

'The Commission acknowledges that [residual carbon emissions pricing policy uncertainty] may exist; however it notes, that that uncertainty is in the opposite direction to that it faced in 2010.'

'... if the policy is abandoned, wholesale electricity prices will, if anything, fall. Therefore ... the EPC-based approach will, if anything, overstate the future wholesale electricity costs ...'

We feel that these statements reflect a lack of understanding about how carbon pricing policy uncertainty affects market liquidity and wholesale prices.

Firstly, we believe that carbon uncertainty has not been removed and that it is still affecting the South Australian wholesale market due to the threat of repeal of the carbon emissions pricing policy if the Coalition government wins the 2013 federal election. Figure 1 in the Draft Determination¹¹ demonstrates the declining percentage in trades expiring more than 12 months after purchase between FY 04/05 through to FY 09/10. In FY 11/12, this percentage has again dropped to below 20%. Carbon pricing risk has caused product liquidity to be poor for Cal 14 and Cal 15 in all regions. In sections 2.4.1 and 2.4.2 above we've shown that liquidity in the South Australian market is again declining. Carbon policy uncertainty still exists and even though liquidity may have briefly improved in FY 11/12, it is now in decline again.

In commenting on the overall state of the electricity trading market, the AFMR 2012 report¹² states:

'However, the overriding issue which electricity market participants were forced to manage was implementation of a carbon price. The political uncertainty around this has been quite destabilising for the market for some time and will continue to be so.'

⁸ Australian Financial Markets Association – Report Excel data (AFMR 2012), <http://www.afma.com.au/data/afmr.html>

⁹ AFMR 2012, Excel data

¹⁰ ESCOSA, Draft Determination, pgs 25-26, 54

¹¹ ESCOSA, Draft Determination , pg 45

¹² Australian Financial Markets Association – Report 2012 (AFMR 2012), <http://www.afma.com.au/data/afmr.html>

'The electricity market will continue to focus on carbon repeal risk. This regulatory uncertainty remains the dominant reason for poor secondary market liquidity.'

It's difficult to understand how the Commission could have reasonably concluded that the risk of carbon emissions pricing policy uncertainty has been resolved using the same information sources that we have (d-cypha and the AFMR 2012).

On the matter of the carbon pricing uncertainty being in the 'opposite direction' (i.e. that wholesale prices could if anything be overstated), we consider that the reasoning behind the Commission's conclusion is flawed.

The design of exchange traded contracts design is described as 'clean' in that they don't allow for an additional payment for carbon as OTC contracts do. This means that parties entering into Sydney Futures Exchange (SFE) contracts must determine what carbon inclusive price they are willing to pay at the time of the trade. From Q1 14, the prices for these contracts are discounted to account for the possibility of the repeal of the Clean Energy Act. A retailer that buys a clean SFE contract is exposed to the risk of repeal. If the carbon scheme is removed during 2014 then the retailer is left financially exposed being unable to charge a carbon pass through allowance to their retail customers but having committed to buy a carbon inclusive 'hedging' contract. This risk is a major disincentive to buy SFE contracts to hedge retail sales for 2014. In addition, traded volumes are very low for 2014. With patchy trades and SFE contract prices containing a reduced but unknown component for carbon, it becomes impossible for the Commission or Frontier Economics to provide any real view in 2012 on what retailers costs will be in the last year of the regulatory period. They may not in fact be overstated if the carbon price is removed.

2.4.4. Generation in South Australia

There are a relatively small number of generators in South Australia. Generators like Pelican Point, AGL and Alinta can sell contracts at times but only at certain times during a year and it's impossible to predict when generators are willing to sell at the current price. Generators that find a lack of buyers at the times they are willing to sell will often choose to sell contracts in Victoria instead of South Australia.

The liquidity of the market depends simply on whether a generator has volume to sell and what their price expectations are. With some generators, credit issues can prevent us transacting where we otherwise would. Notably, most trading companies who are not involved in generation in South Australia generally don't take positions in the South Australian market.

2.4.5. Wholesale market summary

At this particular time, we consider that the market has become less liquid through the last 12-18 months, and shows little signs of improving due to the ongoing issue carbon price uncertainty. How can the Commission be comfortable that liquidity will re-emerge in South Australia? The reality is that retailers in South Australia cannot rely on the wholesale market to hedge much of their retail load as sellers of contracts (i.e. generators in the main) are offering very small volumes. The implications of this are:

- Traded volumes are low, and so very little of the energy provided to retail customers in South Australia is being hedged via the wholesale market and so this must be sourced elsewhere (predominantly via physical hedges and power purchase agreements).
- Wholesale prices in South Australia are more volatile than in other markets
- Wholesale prices may understate the cost of carbon in Q14 and beyond
- Risk of repeal is being borne by retailers that hedge using SFE contracts

In this environment, we question how the Commission can think that wholesale market prices can reflect retailer's efficient costs.

We strongly urge the Commission to reconsider the move to a pure EPC-based approach. We understand the Commission's desire for using market data, as we advocate that the energy costs in the South Australian standing contract price should also consider the EPC (along with the LRMC). The lack of reliable wholesale market data is not ideal, but is typical of the South Australian market. Therefore, we encourage the Commission to use an approach for determining the energy cost component of the WEC allowance that doesn't rely so heavily on wholesale market prices.

2.5. Reasons for changing approach now to EPC

The Commission's reasons for moving away from a LRMC-based tolerance band for the remainder of the regulatory period appear to come down to the following points:

- Carbon pricing policy uncertainty was manifested in low liquidity of the market and this left market data open to question.
- Even though carbon policy uncertainty may remain, it is in the opposite direction than that faced at the start of the regulatory period and will not negatively impact retailers.

We don't see that carbon pricing policy uncertainty has been resolved, or that there has been an improvement in liquidity in South Australia (whether related to carbon or not). Both d-cypha and AFMR data show that the risk of carbon repeal is affecting South Australia currently and that overall market liquidity is now lower in South Australia than it was in the FY09/10 year prior to the Commission making the ESCPD 2011-14. As outlined above (section 2.4.3), we are also not confident that the risk is in the opposite direction and that wholesale prices would fall from 2014 if the carbon price is removed.

Using the same information sources, we don't believe that the Commission has full justification for remaking the ESCPD at this time. We acknowledge that the Commission can determine what constitutes 'special circumstances' and initiate a review at any time. However, we don't believe the Commission fully appreciates how hard it will be to attempt to determine retailer's efficient costs using market data at times like this. In this environment, it is irrelevant to consider the preference other state regulators may have for a market-based approach to calculating energy costs in their retail electricity pricing determinations.

Apart from the risk of changing approach midway through the period, we believe that there is an even higher risk if an EPC-based approach is adopted in a market like South Australia. If this approach were to be taken up by the Commission now, and for the next regulatory period, then retailers would have no appreciation of what values might emerge from an EPC-based model. An EPC-based approach doesn't support a long-term, mass-market retail strategy for either incumbent or second tier retailers. We urge the Commission to reconsider the impact of unpredictable and volatile price movements on retail competition in South Australia.

Based on the Draft Determination we will be moving from a long-term average approach to the WEC allowance to a lower market-based cost at a time when there are low wholesale prices. Can the Commission confirm that they will not change the approach again back to an LRMC basis if wholesale prices increased above the level of LRMC? An SRMC based approach certainly won't average out to the level of LRMC if it's not consistently applied.

When making the Final Determination we ask the Commission to take a longer-term view on the WEC allowance methodology and to consider the detrimental effect the proposed change in the WEC allowance methodology could have on electricity retailing activity the long-term interests of customers.

3. EPC Methodology & Calculations

3.1. EPC Inputs and Modelling Approach

3.1.1. Forecast load shape

The Net System Load Profile (NSLP) load shapes developed by Frontier Economics are characterised by annual load factors (average load / maximum load) of 34% to 41% with an average of 37.4%. This reflects the use of nine years of historic NSLP data in the development of the forecast load. However, the South Australian mass-market load has become peakier in recent years. We calculate that for our own mass-market load in South Australia, load factors have steadily decreased from around 39% in 2007 to 32% in 2011. This suggests that the NSLP load shapes used by Frontier Economics to estimate energy costs going forward are much less peaky than what might be expected for coming years.

We are concerned that by using a less peaky NSLP load forecast (i.e. one with a higher than actual load factor), Frontier Economics would underestimate the actual energy costs borne by a retailer. To rectify this, we suggest that the forecast NSLPs should be calibrated to have a load factor consistent with the expected future load profile rather than historic outcomes ranging over the last nine years. In this area, retailers are exposed to significant asymmetrical risk to the downside.

3.1.2. Spot price forecasts

The spot prices forecast by Frontier Economics appear reasonable at a high level. However, we note that constructing a system load trace by selecting the system demands correlating in time to the developed NSLP load shape does not guarantee a sensible system load. This in turn means that the results from the modelling, including the forecast spot prices, may not be realistic projections of expected market outcomes. If this methodology were to be used in future, we would like some verification that the system loads and prices produced were properly representative of the system under POE10, 50 and 90 assumptions on more than just an average annual basis.¹³

The risks of spot modelling are not balanced. The risk to the upside is higher as there are so few players in the South Australian market, a change of strategy from one player can have dramatic effects. A fall in price is limited by generators ceasing to generate when prices are below their operating costs (short run marginal costs). Upside prices can occur not only due to rising costs like gas but also due to behaviour and strategy and plant outages (e.g. Yallourn mine flood, Eraring boiler failures both observed in the last six months). These issues are impossible to model robustly and setting a low price can leave retailers financially exposed to a rise in wholesale forward prices.

We would like to see Frontier Economics provide some evidence that spot price outcomes from their model are reliable over the longer-term.

3.1.3. Forward price weighting approach

Regarding the contract prices, we conceptually have a strong preference for the rolling average or trade weighted approaches, noting that the marked-to-market approach is unrealistic in that a retailer of any substantial size would not be able to purchase its required contracts for a given year over a short period of time. We disagree with Frontier Economics when they say in a competitive market, that it would not be sustainable for retailers to 'consider historical sunk contracting decisions when deciding, on the margin, at what price to serve the standing contract load.'¹⁴ Retailers certainly must consider historical hedging decisions made for forward contracts that relevant to the current or future period. That is, the decision may be sunk, but the costs are not.

We have outlined above (section 2.1.1) that this is not the correct way to consider a retailer's pricing decisions relating to a mass-market load.

¹³ POE: probability of exceedence, 10%, 50% and 90%

¹⁴ Frontier Economics Draft Report, pg 26

Frontier Economics note that the rolling average approach produced a result unlikely to occur in the market (off peak prices being less than peak prices). We think it more likely that these aberrant outcomes result from attempting to apply a wholesale market based approach to calculating an EPC in a market like South Australia and other issues with the input data discussed above.

In addition, the method used by Frontier Economics to construct data for FY 13/14 is very simplistic and we feel there was no point in modelling the EPC in the last year of the regulatory period. It is especially worrying to see the Commission include the 2013/14 chart on energy purchase costs in the Draft Determination without repeating Frontier Economics' qualifications about how values were calculated from base swap prices assuming that peak to off peak ratios follow on from the year before.¹⁵

The marked-to-market approach may lead to an invalid WEC allowance, if wholesale prices happen to be affected by a short-term change in market sentiment or manipulation. In the sparsely traded South Australian market, it's possible that a few trades on the right day could provide a completely misleading view of future energy costs to retailers.

For the rolling average approach, we suggest that three years is too long a period and that a two-year period would more appropriate in the South Australian market.

3.1.4. Hedging strategy

We have significant questions regarding the methodology proposed by Frontier Economics. The actual hedging strategy is not described by Frontier Economics, other than that a single contract mix is 'optimised' across all through POE load shapes for each contract price case. To be satisfied with the approach taken by Frontier Economics we would like the Commission to obtain answers to the following questions:

- How were the three load shapes (POE10, 50, 90) used?
 - Was a weighted or flat average taken?
 - Alternatively, was some other method used?
 - Were the outcomes of the three load shapes combined before or after the optimisation of the contract mix?
- What metric (objective function) was optimised to provide the 'optimum' contract mix?
- How is risk quantified in the optimisation? We note that risk is defined as '\$/MWh standard deviation of energy purchase cost', but this does not clarify what variable or variables are assumed in the calculation of a standard deviation.¹⁶

We note that a prudent retailer would in general seek to hedge in such a way as to have minimal exposure to eventual spot price outcomes. In contrast, the hedging strategy proposed by Frontier Economics leaves the retailer substantially exposed to spot (assuming the POE50 load) during times that are typically associated with high prices (for instance, Q1 and Q4 peak periods). In our experience in hedging high price events, Frontier Economics' assumption is implausible for the majority of retailers. Retailers can suffer financial distress if they don't limit spot exposure when prices are high.

Furthermore, the level of hedging during some of the lower price moments (e.g. during Q2 and Q3) appears to be unnecessarily high. We therefore assert that the hedging strategy developed by Frontier Economics is inconsistent with that which would be used by a prudent retailer. For this reason, we believe that more detail regarding the contract mix optimisation should be provided, and that the process should be fully reviewed before being used to generate any inputs into the WEC allowance.

¹⁵ ESCOSA, Draft Determination, pg 65

¹⁶ Frontier Economics Draft Report, Figure 13 and pg 28

3.1.5. Overall modelling approach

In summary, we are much more concerned that the Commission has decided to apply an EPC-based approach in an illiquid market environment and the choice of the marked-to-market methodology than we are with the modelling done by Frontier Economics. In this environment where wholesale market data is not reliable, even the best model will not be able to produce valid results. The data and arguments produced in support of the Draft Determination give us no confidence that the Commission understands the market and how to estimate the actual energy costs that retailers face.

3.2. Headroom allowance

3.2.1. Carbon adjustment

As we discussed above (section 2.4.3), the wholesale market data used in an EPC-based approach will contain carbon but a discounted amount at times when participants can't predict the carbon price for future periods. It is not enough to claim that futures contracts are carbon inclusive by design and therefore that no additional allowance should be included. The Commission risks underestimating the retailers' carbon costs in the final year of the regulatory period if the Clean Energy Act is not repealed. This is because the future price also takes into account the probability that carbon will be repealed and only contain a probability weighted carbon cost.

3.2.2. Determination of an allowance to promote competition

Given the WEC allowance methodology outlined in the Draft Determination, we believe that the Commission are correct in applying an explicit amount for headroom to promote competition. However, ACIL Tasman have come up with the explicit headroom percentage in an unusual way and we think their approach has some shortcomings and errors.

Table 3: Problems with the calculation of headroom discount percentage

ACIL Tasman view ¹⁷	EnergyAustralia view
The minimum discount offered on market contracts (relative to the standing contract price) are the best indicators of how much headroom is required to promote competition.	Why is this the best indicator? Surely headroom set at the level of the minimum discount would only encourage a minimal level of discounting.
This minimum discount can be calculated using a comparison of Victorian electricity data from one zone (Citipower) using the Essential Services Commission's Your Choice website.	Retailers only need to provide one commonly available offer to publish on the Your Choice site. Retailers tend to alter their best offer throughout the year and will tend not to publish or update their best offers on publically available sites such as Your Choice. Thus, the minimum level of discounting would be higher than found by ACIL Tasman.
The Origin Victorian standing offer can be used to compare other retailers' market offers to calculate a headroom discount range for South Australia	The Origin standing offer in the Citipower zone doesn't appear to have any greater validity than any other retailer's standing offer in this zone.
The 'market offer (with discounts)' for the TRUenergy offer listed on Your Choice is 3%.	ACIL Tasman have made errors in analysing retailer's discounts. Discounts listed for some retailers include those available to customers who pay on time, pay by direct debit and/or receive email bills in advance. ¹⁸ However, the 3% pay on time discount on the TRUenergy product wasn't included. To be consistent, the TRUenergy offer should have been listed as a 6% discount not 3%.
The 'market relative to Origin standing offer' percentage for TRUenergy is 3%	Apart from the error noted directly above, ACIL Tasman have selected the percentage from the wrong column – they should have used 4% not 3%.

¹⁷ ESCOSA, Draft Determination, pg 7 And ACIL Tasman Briefing Note to the ESCOSA WEC Investigation, 12/09/12

¹⁸ Some of the retailers are Alinta Energy, Neighbourhood Energy, Click Energy and Simply Energy.

By the approach created by ACIL Tasman, the headroom percentage calculation would have found that the TRUenergy product was discounted by 7% relative to the Origin standing offer in the Citipower area.

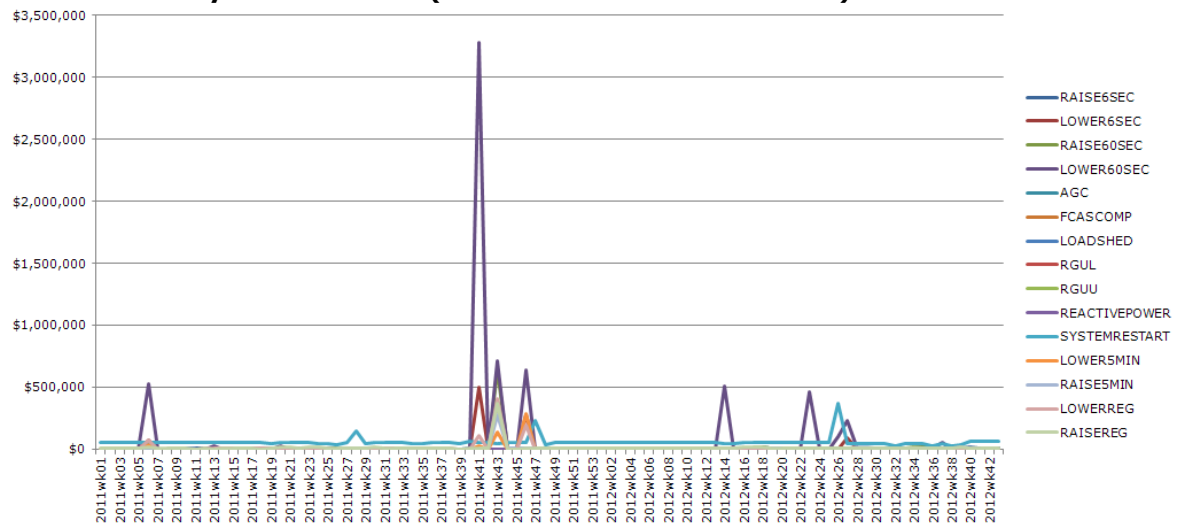
Despite our concerns with the method used to determine an appropriate headroom percentage, we are supportive of the Commission setting fixed headroom percentage in the standing contract price throughout the regulatory period. A fixed value for headroom percentage would provide more stability for retailers. However, we are not supportive of an approach similar to that used by ACIL Tasman to determine what the percentage should be. The reason being, that we can't see the Commission consistently using this headroom methodology in South Australia if minimum discounts were to be more than 10-15%. This level of discounting is commonly seen in Victoria.¹⁹

Our view on what percentage for headroom should be is influenced by the issues we have with the EPC-based approach. Based on the Draft Determination, we suggest the headroom percentage should be significantly higher than 5%. Similarly, the method to protect competition against forecasting errors can only be deemed reasonable, or not, in relation to the suitability of the approach to calculating the key component of the energy costs. The EPC-based approach is so far away from what we would consider appropriate at this time, that it becomes less meaningful to provide detailed views on these subsidiary components.

3.3. Other WEC allowance components - Ancillary Service Charges

The ancillary services charge is a small component of the WEC allowance and so the choice of method is unlikely to have a great impact in most years. However, we note that there are fewer generators in South Australia who are able to provide frequency control ancillary services (FCAS) if required. At times when wind generation is low and the interconnector is at capacity, or when there is a network outage, South Australia is at risk of having few generators able to provide frequency raise services. Similarly, when there is too much wind the transmission is constrained exporting to Victoria, the ability to provide frequency lower services may be limited. Figure 2 shows that historical price spikes have largely arisen from FCAS compared to other types of ancillary services.

Figure 2: SA Ancillary services costs (2011 week 1 – 2012 week 42)²⁰



Prices for FCAS will be higher at times when generators are already running at high levels and few generators are bidding. This situation would be exacerbated in Q2 and Q3 when the Northern power station is not operating. For these reasons, we believe that price spikes in FCAS are possible in South Australia. We encourage the Commission to review the possibility of higher future ancillary services costs in South Australia, rather than relying on arithmetic averages over the last ten years.

¹⁹ ACIL Tasman Briefing Note to the ESCOSA WEC Investigation, 12/09/12

²⁰ AEMO, <http://www.aemo.com.au/Electricity/Data/Ancillary-Services>, Weekly Ancillary Services Cost.xls, 2/11/12

4. Consequential amendments

4.1. Relative price movement tolerance band

The resetting of the tolerance band by the Commission uses a seemingly arbitrary method to bring the tolerance bands to the same relative positions they were at the beginning of the regulatory period. The effect of this is that the tolerance band allows a possible upward movement of \$22.16/MWh after the Commission has dropped the overall WEC allowance by taken \$27.19/MWh.

This \$22.16/MWh must allow for any move in the standing contract price required to cover the real costs of energy supply plus any increase over the next 18 months as well as retail operating costs (ROC) which will have increased also since the Commission made the ESCPD. As outlined above (section 1), a reversion to an EPC-based approach would in itself result in higher operating costs. We also note that retailers operating costs would increase if changes currently being considered by the South Australian Government to ban exit fees were to be brought in.

4.2. Retail operating margin

We recommend that the retail operating margin (ROM) not be reviewed during this review without reconsidering the ROC component. There have been other changes to ROC that would offset a possible drop in ROM due to this WEC investigation.

4.3. Solar feed-in tariff

The feed-in tariff (FIT) in our view should not be based on spot price projections. The volume and timing of electricity generation by customers with solar photovoltaic (PV) panels is only unpredictable when considering individual customers. In aggregate, the solar PV generation from small customers is just as predictable to retailers as electricity consumption. Therefore, we believe a similar approach should be used to valuing the energy components of the FIT and the standing contract price.

However, we note that it is in neither customers' interests nor our own to change feed-in tariffs too frequently. We recommend the Commission make no change until July 2013, and if the required change in FIT is determined to be a small value, then to make no change at all.