

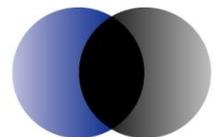
Public version

Competition in South Australia's retail energy markets

Report on interviews with
participants

Prepared for the Essential Services Commission of South
Australia

24 June 2010



ACIL Tasman

Economics Policy Strategy

ACIL Tasman Pty Ltd

ABN 68 102 652 148

Internet www.aciltasman.com.au

Melbourne (Head Office)

Level 6, 224-236 Queen Street
Melbourne VIC 3000

Telephone (+61 3) 9604 4400
Facsimile (+61 3) 9600 3155
Email melbourne@aciltasman.com.au

Darwin

Suite G1, Paspalis Centrepoint
48-50 Smith Street
Darwin NT 0800
GPO Box 908
Darwin NT 0801

Telephone (+61 8) 8943 0643
Facsimile (+61 8) 8941 0848
Email darwin@aciltasman.com.au

Brisbane

Level 15, 127 Creek Street
Brisbane QLD 4000
GPO Box 32
Brisbane QLD 4001

Telephone (+61 7) 3009 8700
Facsimile (+61 7) 3009 8799
Email brisbane@aciltasman.com.au

Perth

Centa Building C2, 118 Railway Street
West Perth WA 6005

Telephone (+61 8) 9449 9600
Facsimile (+61 8) 9322 3955
Email perth@aciltasman.com.au

Canberra

Level 1, 33 Ainslie Place
Canberra City ACT 2600
GPO Box 1322
Canberra ACT 2601

Telephone (+61 2) 6103 8200
Facsimile (+61 2) 6103 8233
Email canberra@aciltasman.com.au

Sydney

PO Box 1554
Double Bay NSW 1360

Telephone (+61 2) 9389 7842
Facsimile (+61 2) 8080 8142
Email sydney@aciltasman.com.au

For information on this report

Please contact:

Marianne Lourey

(03) 9604 4426

0409 983 041

m.lourey@aciltasman.com.au

Contributing team members:

Jeremy Tustin

Contents

Executive summary	v
1 Introduction	1
1.1 Structure of this report	3
2 Activity in the South Australian retail energy market	4
2.1 Market structure	5
2.2 Market conduct	5
2.2.1 Market shares	8
2.2.2 Market churn	11
2.3 Market performance	13
2.4 The value represented by South Australian energy customers	14
3 The regulated retail price cap	16
3.1 Standing contract price for electricity	17
3.1.1 Wholesale electricity cost	18
3.1.2 Retail operating cost	18
3.1.3 Retail margin	19
3.1.4 Level of retail prices in South Australia and interstate	19
3.2 Standing contract price for gas	20
3.3 Changes to the form of retail price regulation	20
3.4 The objective of retail price regulation	21
4 The South Australian wholesale electricity market	25
4.1 The wholesale electricity market	25
4.2 Liquidity of the contract market	27
4.2.1 Carbon price uncertainty	29
4.3 Volatility of the spot price	30
4.3.1 Market concentration and bidding strategy of Torrens Island Power Station	32
4.3.2 Substantial wind energy capacity	33
4.3.3 Extreme weather events	35
4.3.4 Technical failures	36
4.3.5 Carbon policy uncertainty	36
4.4 Vertical integration	37
5 The South Australian retail gas market	39
5.1 The value of South Australian gas customers	39
5.2 The cost of accessing gas	40
5.3 Short Term Trading Market	42

6 Other issues	43
6.1 State's climate change policies	43
6.2 Compliance costs	44
7 What would need to change to increase the level of competition in South Australia?	46
7.1 Dilute concentration of ownership in the wholesale electricity market	46
7.2 Increase generation capacity and counter parties	48
7.3 Limit the amount of wind energy generation	48
7.4 Increase interconnection capacity	48
7.5 Remove retail price regulation	49
7.6 Increase the regulated price cap	50
7.7 Adopt an index-based approach to regulating retail prices	51
7.8 Improve carbon policy certainty	51
A List of interview participants	A-1
B ESCOSA retail competitiveness review – interview outline	B-1

List of figures

Figure 1	Overview of retail marketing strategy	8
Figure 2	South Australian electricity customer numbers, residential, market share by retailer by year	9
Figure 3	South Australian electricity customer numbers, small business, market share by retailer by year	9
Figure 4	South Australian gas customer numbers, residential, market share by retailer by year	10
Figure 5	South Australian gas customer numbers, small business, market share by retailer by year	10
Figure 6	Small customer transfers in SA retail energy markets	12
Figure 7	Building block approach to determining retail electricity price	17
Figure 8	South Australian wholesale spot electricity prices, November to March, 12:30pm to 6:30pm, 2005 to 2010	30
Figure 9	South Australian average electricity (spot) prices 2003 to 2009	31
Figure 10	Standard deviation of South Australian electricity spot price – 2005 to May 2010	31

List of tables

Table 1	Participants interviewed	2
Table 2	Retailers operating in the South Australian energy market	5
Table 3	Principal South Australian non-renewable generators, in ascending order of SRMC	26
Table 4	Negative price events in South Australian wholesale (spot) electricity prices – 2005 to 2010	34

Executive summary

The Essential Services Commission of South Australia (the Commission) is charged with protecting the long term interests of South Australian consumers with respect to the price, quality and reliability of essential services.

It has a key role in oversighting and regulating retail market competition for small energy customers in South Australia and facilitating competitive energy markets is a key priority. In addition to a number of more active roles it has played, and will continue to play, the Commission has monitored the level and success of competition in these markets since they were first opened to competition.

Against this background, the Commission engaged ACIL Tasman to conduct interviews of South Australian energy market participants to feed into its broader review of the state of competition in South Australia's retail energy markets. These interviews were conducted over approximately a two week period in mid May 2010. This report provides ACIL Tasman's summary of the outcomes of the interviews.

Activity in the South Australian market

The Australian Energy Market Commission has previously described energy as a 'low involvement' product and this was endorsed by participants in many of the interviews. While small customers are willing to participate in the market if approached by retailers, they are not likely to seek out competitive offers. This means that, for these markets to be effectively competitive, they must be driven by activity on the part of retailers.¹

Most participants in South Australia's retail energy markets are not actively seeking to increase their customer numbers in South Australia at present. This points to a conclusion that competition in South Australia's retail energy markets has stalled. However, two key factors were raised that run contrary to this conclusion.

Firstly, several participants are ready to re-enter the South Australian market whenever there is a fairly small reduction in the cost of doing business. This amounts to at least the basis of a competitive fringe on the market prepared to compete on a 'hit and run' basis. Therefore while the level of active competition may be low, there is still a significant degree of potential competition in the market.

¹ Australian Energy Market Commission, "Review of the Effectiveness of Competition in Electricity and Gas Retail Markets in South Australia - First Final Report", December 2008, p. xi

Indeed, a number of participants have noted an easing in wholesale electricity costs following the recent milder summer and a corresponding increase in the level of marketing activity in South Australia in recent weeks.

Secondly, some participants also noted that, while churn rates are not as high as they have previously been in South Australia, they are still significantly higher than would be expected in markets for other low involvement products. Some participants held this up as evidence that the level of competitiveness is still reasonably high, while others thought it more important to note that South Australia's churn rate is about half that in Victoria, indicating that competition could easily be more intense in South Australia.

Participants will typically direct their resources to markets where the customers represent the greatest value, or where the risk:reward ratio is most appealing. It is the fact that participants see this risk:reward ratio as being unacceptably low at present that is driving the relatively low level of competitive activity in South Australia.

The level of activity in the gas market is directly related to the level of activity in the electricity market. Only four retailers participate in the gas market, largely to be able to offer a dual fuel contract. With the low level of activity in the retail electricity market currently, there is therefore a low level of activity in the retail gas market.

The regulated retail price cap

The retail price of both electricity and gas for small customers is subject to regulation in South Australia. AGL is compelled to offer a 'standing contract' to small electricity customers and Origin Energy is compelled to offer a 'standing contract' to small gas customers.

The current three year standing contract price path commenced on 1 January 2008 for electricity and on 1 July 2008 for gas.

Retailers other than the 'prescribed retailer' are able to determine prices as they see fit without regard to the standing contract price (referred to as 'market offers' or 'market contracts'). However, as consumers have recourse to the standing contract, there is a theoretical upper limit on the price that consumers are likely to be willing to pay on market contracts.

The participants are of the view that the actual margin in the retail electricity tariff is lower than was forecast as part of the retail price determination due to higher wholesale electricity costs and higher retail operating costs than originally forecast.

The wholesale electricity costs increased in 2008 and 2009 relative to 2006 and 2007 initially due to the drought and further exacerbated by extreme weather events. Some, but not all, participants are of the view that the bidding strategy by Torrens Island Power Station has also contributed to the increase in the wholesale electricity costs.

Some participants were of the view that the allowance for retail operating costs in the current retail price cap is too low. One participant indicated that the actual retail operating costs are in the order of 50 per cent higher than forecast.

Participants were particularly concerned regarding the allowance for acquisition costs in the standing price. The cost to acquire customers by retailers other than the standing contract retailer is higher than for the standing contract retailer.

Some participants were also of the view that the retail margin in South Australia should be higher than in other jurisdictions due to the higher risks associated with operating in the South Australian retail energy market and the higher financing costs that are incurred.

The main issue raised regarding the standing retail contract price for gas was the retail margin. As the average gas customer has low consumption relative to customers in Victoria in particular, the retail margin percentage translates to a very low dollar margin. This dollar margin can be eroded quickly if something goes wrong, requiring for example a call to the call centre or if there is a billing issue.

The cost of wholesale electricity in South Australia

On the risk side, participants generally consider that the South Australian wholesale electricity market has become substantially more risky, particularly following the extended hot period in early 2008.

Of concern, particularly to retailers without generation in South Australia, is that the contract market is illiquid. Some participants were strongly of the view that this was due to the 2007 generator asset swap between TRUenergy and AGL. However, some participants were of the view that the timing of the asset swap may be coincidental.

Prior to the drought and extreme weather events, the wholesale spot price was stable so many retailers were only lightly hedged. When the spot price became more volatile, the retailers sought more contract cover.

One retailer advised that it would be more active in the South Australian retail electricity market if a 3 – 4 year hedge contract could be secured at a particular strike price which could be sustained with the regulated retail price cap.

However, generators are reluctant to enter into such a long contract with the carbon price uncertainty, and the strike price that was mentioned is less than the dispatch weighted average price received by Torrens Island prior to the asset swap.

As retailers are not prepared to pay a price that would provide an adequate return to generators, generators are reluctant to enter into contracts.

With retailers unable to secure contract cover, they are more reliant upon the spot market which has been more volatile. A number of reasons were suggested for this volatility, including:

- Market concentration and bidding strategy of Torrens Island – however, some participants are of the view that while the returns being earned on the few hot days are likely to be high, they are unlikely to be high when averaged over the year.
- Substantial wind energy capacity – the high penetration of wind energy in South Australia is depressing spot prices and resulting in a high number of negative price events. Additionally the wind energy generators are displacing output from existing generators. To ensure the existing generators are able to earn a reasonable return, these generators have an incentive to reduce the level of contracting and bid spot prices up.
- Extreme weather events which have been experienced over the last couple of years – the heatwaves experienced in 2007/08 and 2008/09 and the drought before then, were seen as a cause of high wholesale prices.
- Technical failures – one participant suggested that most high price events can be traced to 'stuff ups' of one form or another.

The South Australian retail gas market

Only four retailers participate in the retail gas market and only as an adjunct to the retail electricity business. There is very little value in small gas customers to the retailers – the average consumption in South Australia is lower than in other states and so the dollar margin per customer is very low.

Many of these participants also own gas-fired generation. For these participants, the opportunity cost of supplying gas to a retail customer is that the gas is not available for the gas-fired electricity generator.

Additionally, the cost to negotiate access to pipelines in regional areas of South Australia is considered to be unjustified relative to the value of customers in those areas to the retailer.

Other issues

In addition to energy costs, participants cited a number of other issues that were considered to be a 'nuisance' rather than a barrier to competition *per se*. These issues related to the State's climate change policies, in particular the Residential Energy Efficiency Scheme (REES) and the feed-in tariff for small scale photovoltaic systems, and the cost of complying with some regulations.

While participants were generally supportive of the State's intentions in tackling climate change, they preferred a greater level of national consistency and queried the cost effectiveness of the policies that have been chosen.

The requirement to respond to 85 per cent of telephone calls within 30 seconds was inconsistent with the standard in other jurisdictions, was inconsistent with the internet-based business model of some retailers, and provided little scope for retailers to differentiate themselves on the basis of a premium call centre performance.

Participants were generally supportive of the National Energy Customer Framework (NECF), but are concerned that jurisdictions may carve out derogations.

Some participants are also concerned about the cost to smaller retailers of the credit support arrangements with ETSA Utilities but are confident that the Commission is addressing this issue.

What would need to change to increase the level of competition in South Australia?

Participants made a number of suggestions for increasing the level of competitive activity in South Australia, some within and some beyond the Commission's control. These suggestions were:

- Diluting the concentration of ownership in the wholesale electricity market – while some participants were of the view that the Australian Competition and Consumer Commission had made an error allowing AGL to acquire Torrens Island which needed to be reversed, it was not a unanimous view. Others did not regard AGL's bidding strategy as inappropriate given the circumstances, particularly the extreme weather conditions and the impact of wind energy generators on the profitability of Torrens Island.
- Increasing generation capacity and the number of counterparties for hedge contracts – additional generation capacity would improve the liquidity of the contract market. Liquidity could also be improved by encouraging financial participants to participate in the South Australian energy market.
- Limiting wind energy generation – the increased penetration of wind energy generation is depressing spot prices, resulting in greater volatility,



and deferring new investment in gas-fired generators required to support the peak demand. The increase in wind energy generation in South Australia needs to be appropriately balanced with the increase in demand.

- Increasing the capacity of the interconnector – there were mixed views as to whether there is any benefit associated with increasing the capacity of the interconnector. While this would allow the ‘pain’ of renewable energy to be shared more equitably across the National Electricity Market, the risk associated with interregional hedges was considered by some to be too high.
- Removing retail price regulation – it was recognised that the State Government is unlikely to remove retail price regulation, but a transition path could be adopted, by removing retail price regulation for small business customers and for gas.
- Increasing the regulated retail price cap – the retailers with generation were of the view that if the regulated retail price cap was increased, they would be more active in the market. Retailers without generation would be unlikely to be more active in the market if the regulated retail price cap were increased as the risk would continue to be too high.
- Adopting the index based approach to retail price regulation – this was considered to be a second best approach to deregulating retail prices. Assuming the starting point was not set too low, the index based approach would allow the retail price to adjust to the circumstances over time and maintain sufficient headroom to facilitate competition.
- Improving carbon price certainty – if there was greater certainty regarding a future carbon price, generators may be more willing to enter into longer term wholesale energy contracts commensurate with the term of retail contracts.

1 Introduction

The Essential Services Commission of South Australia (the Commission) is charged with protecting the long term interests of South Australian consumers with respect to the price, quality and reliability of essential services. In protecting those interests, the Commission has regard to a number of factors including the need to promote competitive and fair conduct, prevent the misuse of monopoly or market power, and promote economic efficiency and ensure that consumers benefit from that efficiency.²

The South Australian retail markets for electricity and gas were opened for retail competition on 1 January 2003 and 28 July 2004 respectively. Since then, the Commission has played a key role in overseeing and regulating retail market competition for small energy customers in South Australia. Facilitating competitive energy markets is a key priority. In addition to a number of more active roles it has played, and will continue to play, the Commission has monitored the level and success of competition in this market since it was first opened to competition.

Against this background, the Commission engaged ACIL Tasman to conduct interviews of South Australian energy market participants to ascertain their views on the competitiveness of the South Australian retail energy markets. The results of those interviews, which are presented in this report, will feed into the Commission's broader review of the state of competition in South Australia's retail energy market.

This will build on previous work that has assessed the effectiveness of retail competition in the South Australian energy market, in particular reviews conducted in 2007 by the Commission³ and in 2008 by the Australian Energy Market Commission (AEMC).⁴

During May 2010 ACIL Tasman conducted in depth interviews with fourteen participants⁵ in the South Australian energy markets during twelve interview sessions. A full list of interviewees is provided at Appendix A. The businesses

² This is a paraphrasing of the Commission's functions and objectives. A complete description of these functions and powers is set out in the *Essential Services Commission Act 2002 (SA)*, in particular ss.5 and 6

³ NERA Economic Consulting, *Review of the Effectiveness of Energy Retail Market Competition in South Australia, Phase 3 Report for ESCOSA*, June 2007

⁴ Australian Energy Market Commission, *Review of the Effectiveness of Competition in Electricity and Gas Retail Markets in South Australia - First Final Report*, December 2008

⁵ One interview covered PowerDirect and AGL Energy, and Infratil Energy attended the interview with South Australia Electricity.

that were represented, along with a summary of the licences held by each participant, are listed in Table 1.

Table 1 **Participants interviewed**

Participant name	Electricity retail licence	Gas retail licence	Electricity generation licence
AGL Energy	X	X	X
Aurora	X		
Australian Power and Gas	X	X	
Country Energy	X	X	
Dodo Power and Gas	X	X	
Infratil Energy			X
International Power			X
Momentum Energy	X	X	
Origin Energy	X	X	X
PowerDirect	X		
Red Energy	X		
Simply Energy	X	X	
South Australia Electricity	X	X	
TRUenergy	X	X	X

Of these participants:

- There are common ownership arrangements between Simply Energy and International Power, and between South Australia Electricity and Infratil Energy
- PowerDirect and AGL Energy are operated jointly
- One participant advised that it had decided recently to relinquish its gas retail licence.

The interviews broadly followed an interview guide that had previously been agreed with the Commission, and is provided at Appendix B. Within the broad framework set out in the interview guide, the interviews themselves were relatively unstructured, with the direction taken being influenced by the participants' responses to the initial questions. It also became apparent that the level of activity in the market was even less than had been anticipated when the interview guide was prepared.

Where participants identified barriers to competition in these markets, steps that could be taken to address those issues were identified. Participants were asked to identify steps that could be taken by 'anyone' without limiting themselves to steps within the Commission's role or current powers, and that could be taken by the Commission, given its current role and functions.

All but one of the participants that were asked to participate in this process by the Commission agreed to be interviewed. With this one exception,

participants included all those who are currently selling electricity and/or gas in South Australia and a number of businesses who have licences but are not currently active in the South Australian retail energy markets.

In addition, the participants represented a significant portion of the generation capacity installed in South Australia.

1.1 Structure of this report

The remainder of this report sets out the participants' views regarding the competitiveness of the South Australian retail energy markets.

The Commission has previously adopted a “*structure, conduct, performance*” framework to assessing the competitiveness of South Australian retail energy markets. Section 2 presents the results of this project within that framework.

Section 3 discusses the regulated retail price caps in South Australia and the implications that those regulated retail price caps have on the competitiveness of the South Australian energy market, from the participants' perspective. The three components of the retail price cap are discussed – the wholesale electricity cost, retail operating cost and retail margin.

The South Australian wholesale electricity market is discussed further in section 4, including consideration of the liquidity of the contract market and the volatility in the spot market.

The competitiveness of the retail gas market is discussed further in section 5.

Participants also raised the impact of a number of other ‘nuisance’ issues associated with the South Australian energy market, namely the State’s climate change policies (specifically the solar feed-in tariff and the Residential Energy Efficiency Scheme) and the cost of complying with service standards and meeting credit support requirements. These issues are discussed in section 6.

Finally, section 7 sets out participants' suggestions for increasing the competitiveness of the retail energy markets in South Australia and to remove barriers to their further expansion.

2 Activity in the South Australian retail energy market

In its 2008 review of the level of competition in South Australia's retail energy markets, the Australian Energy Market Commission described energy as a 'low involvement' product. While small customers are willing to participate in the market if approached by retailers, they are not likely to seek out competitive offers. This means that, for these markets to be effectively competitive, they must be driven by activity on the part of retailers.⁶

Consistent with this view, the Commission has previously described the following as key indicators of the competitiveness of an energy market:⁷

- market structure: indicators such as the number and market concentration of retailers operating in the market; trends in market share over time; and barriers to market entry, expansion and exit by retailers
- market conduct: indicators such as the exercise of market choice by customers (as evidenced e.g. by levels of customer switching between retailers); and the presence of rivalrous conduct by retailers (as evidenced, e.g. by retailer marketing activities and the offering of differentiated market contracts)
- market performance: indicators such as price and service quality outcomes for customers; and profit outcomes for retailers.

The Commission therefore monitors and reports regularly on the following key indicators of energy retail competition:

- Number of energy retailers
- Small customer switching rates
- Market shares
- Price service mix.

Using this framework as a basis for assessing the competitiveness of the South Australian energy market, the current structure market is described in section 2.1, the level of activity in the market is described in section 2.2 and the performance of the market is discussed in section 2.3. The value represented by South Australian retail energy customers to retailers is discussed in section 2.4.

⁶ Australian Energy Market Commission, *Review of the Effectiveness of Competition in Electricity and Gas Retail Markets in South Australia - First Final Report*, December 2008, p. xi

⁷ Essential Services Commission of South Australia, *2010 – 13 Strategic Planning Key Issues | Discussion Paper*, February 2010

2.1 Market structure

Based on the interviews conducted in May 2010, ACIL Tasman understands that the market structure is similar to when the previous review of retail competition was undertaken in 2008, with ten electricity and four gas licence holders currently retailing to small customers in South Australia.⁸ Those retailers are listed in Table 2.

Table 2 **Retailers operating in the South Australian energy market**

Electricity retailers operating in South Australia	Gas retailers operating in South Australia
AGL Energy	AGL Energy
TRUenergy	TRUenergy
Simply Energy	Simply Energy
SA Electricity	Origin Energy
Origin Energy	
Momentum Energy	
Aurora	
Red Energy	
Country Energy	
PowerDirect	

Since the previous review, one electricity retailer, Jackgreen, has been placed into voluntary administration (on 18 December 2009). Additionally one participant advised that it has recently decided to relinquish its gas licence.

None of the other participants indicated an intention to relinquish their licence.

Whilst Dodo Power and Gas and Australian Power and Gas continue to hold electricity and gas licences, neither is currently operating in the South Australian retail energy market.

2.2 Market conduct

While the number of participants in South Australian retail energy markets has not changed significantly over the last couple of years, most participants reported that they have significantly reduced their marketing effort over the last couple of years in response to a reduction in the 'headroom' in the retail electricity tariff. The level of headroom in the retail tariff is discussed in further detail in section 3.

⁸ Note that ACIL Tasman was unable to interview one of the relevant licence holders for this project. Accordingly, the interviews are supplemented with independent market inquiries conducted by ACIL Tasman in respect of this licence holder.

Consequently most participants are not currently active in the South Australian market.

The key reason that most participants have reduced their marketing effort in South Australia is that they have a finite amount of resources to invest in their business. They will invest these resources in acquiring and retaining retail customers where that activity is likely to represent the best return on that investment. All participants operate in multiple jurisdictions and so where retailing is the best option, participants will direct their efforts to those markets in which the retail customers represent the best value.

Most participants agreed that, under current conditions, South Australian customers do not represent a sufficiently high value for energy retailers. The risks associated with the South Australian energy market are considered to be too high and the rewards are considered to be too low.

Most participants are currently pursuing what was described as a 'hold' strategy. In other words, these participants are not actively trying to increase their customer numbers at present, but nor do they want to see their customer numbers decline. As the cost to retain an existing customer is less than the cost to acquire a new customer, there is sufficient headroom in the retail tariff to retain customers but not to acquire customers.

Whilst these participants are not actively seeking to acquire new customers, they will make an offer to a customer that approaches them. In this case, the acquisition cost is negligible.

One participant described a situation where it had recently taken up an offer to acquire South Australian customers relatively cheaply and had therefore been more active for a short period of time. If another similar opportunity presents itself, this participant would be likely to take it.

Similarly, one participant entered into a long term marketing arrangement in South Australia prior to the decline in the headroom in the retail energy tariffs. Whilst that participant has no plans to discontinue this arrangement, it is unlikely that it will be renewed at the end of the term of the contract unless the South Australian energy market turns around.

Within the group of retailers pursuing a 'hold' strategy, those that either own generation in South Australia, or are owned by a company that does, are generally more willing to take on additional customers than those that do not. This is a result of the protection that the generation gives them from over-exposure to the spot market.

This group of retailers is also more actively monitoring the situation so that they are ready to increase activity in the South Australian energy market when

there is sufficient headroom in the retail tariffs. Some participants are of the view that the wholesale electricity costs are softening following the milder summer in 2009/10 and are sensing a slight increase in activity as the headroom improves.

There is a group of participants that have not previously been active in South Australia and therefore do not have an existing customer base. These participants do not have any firm plans to enter the South Australian market.

There is another participant that regards the value represented by South Australian customers as insufficient to justify continuing to operate in that market. That participant has decided to make an orderly withdrawal from the South Australian energy markets by allowing relationships with its existing customers to lapse.

Therefore, the general pattern is that participants are not actively seeking to increase their presence in South Australian energy markets. At most they are trying to preserve their existing customer bases.

There is one notable exception to this pattern. One participant explained that it places greater emphasis on customer numbers than other factors due to its view that these are an important driver of valuations by investment analysts. Consistent with this emphasis, this participant takes the view that 'any customer is a good customer' and is equally active in South Australia as it is in the other National Electricity Market (NEM) states.

That said, this participant will direct its limited marketing resources to those jurisdictions where there is the greatest value. The level of resources in South Australia is relatively low at the moment as there is a lack of activity by other retailers in the South Australian market. If other retailers were to increase their level of activity in South Australia, they would redirect resources from other states to South Australia.

The level of activity in the gas market is directly related to the level of activity in the electricity market. None of the participants considered a gas only business model to be viable, so whenever a 'gas retailer' seeks to recruit new customers, this will be on a dual fuel basis. While some retailers may have 'gas only' contracts with customers, this is the exception rather than the rule and these are typically legacy arrangements.

For this reason, activity in the retail gas market is constrained by the retailers' willingness to be active in the retail electricity market. As most retailers are not currently inclined to participate actively in the retail electricity market, they are not currently active in the retail gas market.

The gas market is discussed further in section 5.

Figure 1 provides an overview of the different marketing strategies being pursued by each of the retailers.

Figure 1 **Overview of retail marketing strategy⁹**

Retailer	Strategy	Gas	Generation in SA
A	Active	Dual fuel preferred	Yes
B	Hold/watch	Dual fuel preferred	Yes
C	Hold/watch	Dual fuel preferred	Yes
D	Hold/watch	No	Yes
E	Hold/watch	Yes	Yes
F	Hold (business customers only)	No	No
G	Hold	No	No
H	Hold	No	No
I	Not entered	No	No
J	Not entered	No	No
K	Withdrawing	No	No

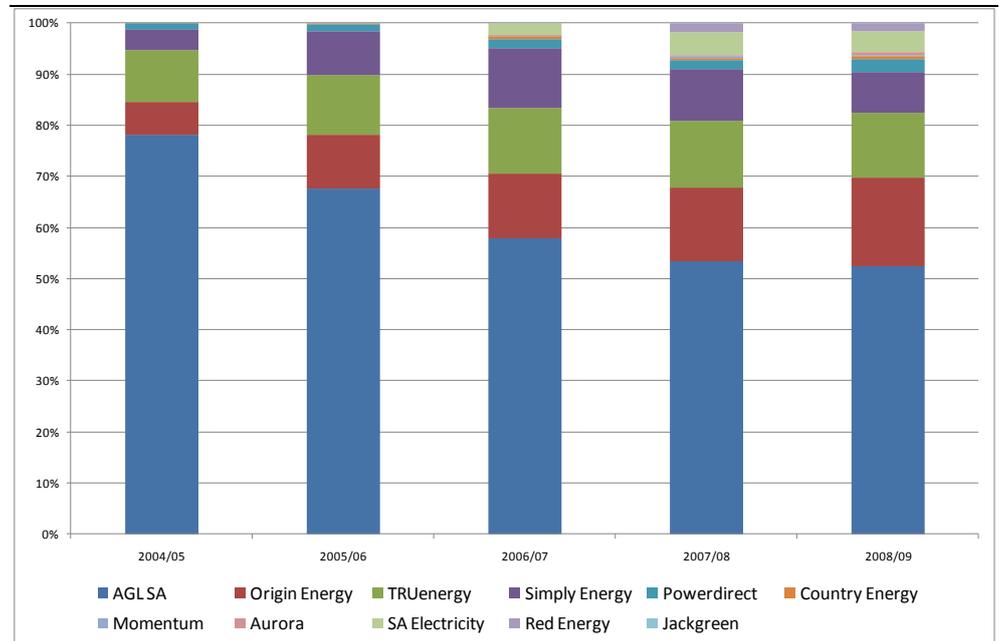
2.2.1 Market shares

Given the lack of marketing effort being applied by most retailers, it is not surprising that market shares have been relatively static over the last couple of years. This is illustrated in Figure 2 to Figure 5 below, which provide the market shares of the retailers in the electricity and gas markets, for residential and small business customers, from 2004/05 to 2008/09.

⁹ Note that for the purposes of this table AGL Energy and PowerDirect are treated as one retailer.

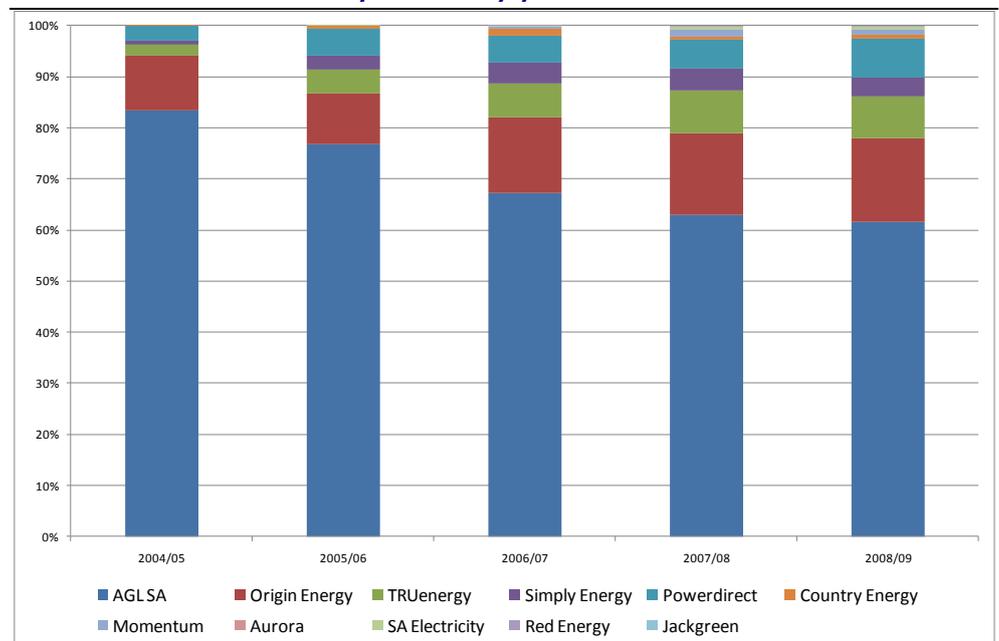
Competition in South Australia's retail energy markets

Figure 2 South Australian electricity customer numbers, residential, market share by retailer by year



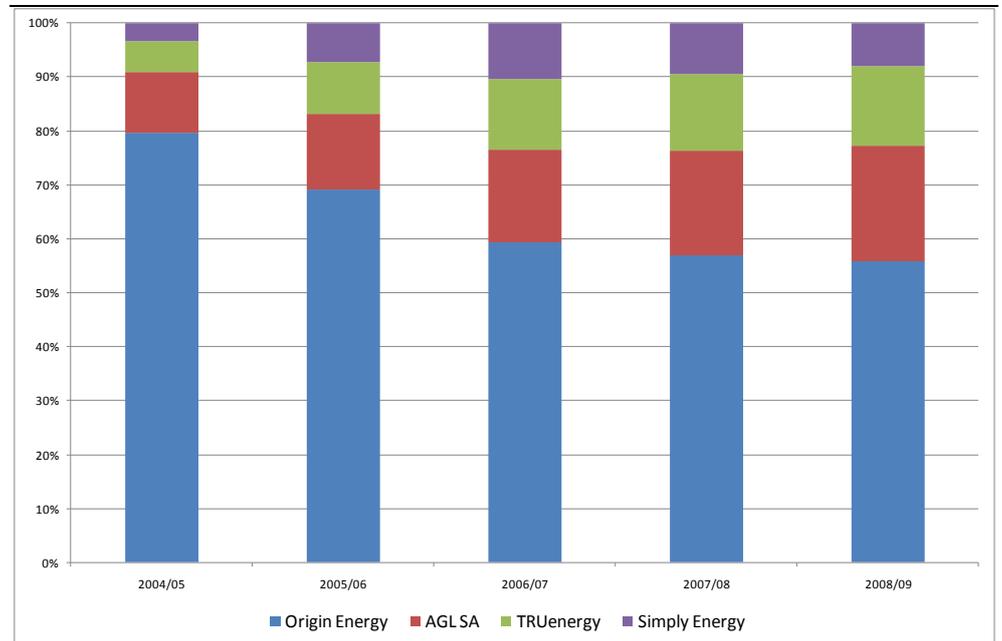
Data source: Essential Services Commission of South Australia, 08/09 Annual Performance Report: South Australian Energy Supply Industry, November 2009, Table A2.0.4, page 126

Figure 3 South Australian electricity customer numbers, small business, market share by retailer by year



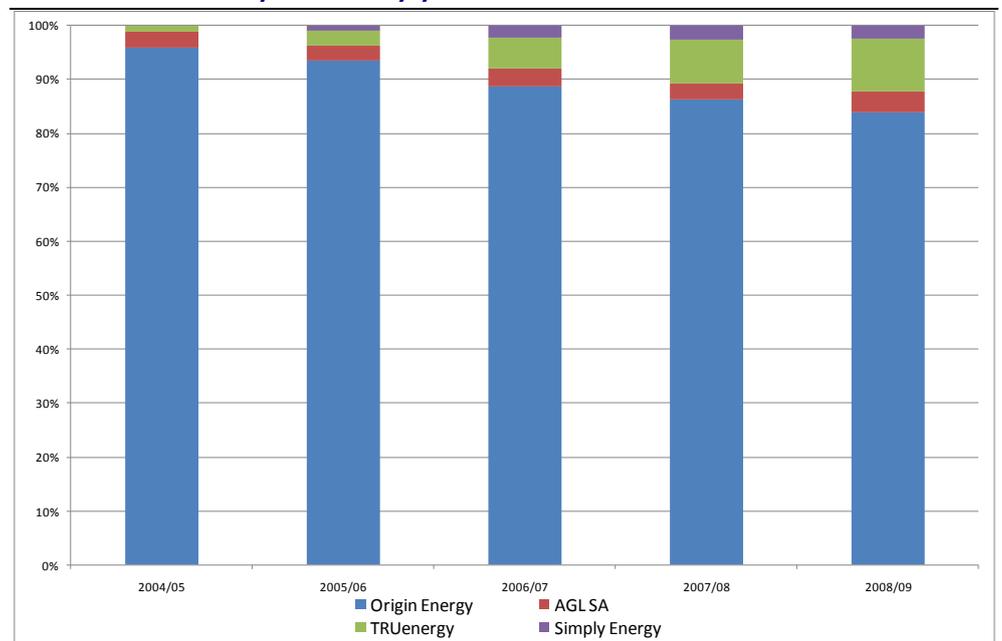
Data source: Essential Services Commission of South Australia, 08/09 Annual Performance Report: South Australian Energy Supply Industry, November 2009, Table A2.0.4, page 126

Figure 4 **South Australian gas customer numbers, residential, market share by retailer by year**



Data source: Essential Services Commission of South Australia, 08/09 Annual Performance Report: South Australian Energy Supply Industry, November 2009, Table A2.0.5, page 126

Figure 5 **South Australian gas customer numbers, small business, market share by retailer by year**



Data source: Essential Services Commission of South Australia, 08/09 Annual Performance Report: South Australian Energy Supply Industry, November 2009, Table A2.0.5, page 126

It is clear from the above graphs that South Australian consumers responded to the introduction of retail competition initially. In all but the case of gas sales to small businesses, the proportion of customers serviced by the incumbent

retailer fell by approximately 20 per cent by mid 2005 and continued to fall until mid 2007. Then, coincident with most participants adopting a 'hold' strategy, the market structure appears to have stabilised. Since early 2007, the incumbent electricity (AGL) and gas (Origin Energy) retailers have retained more than 50 per cent of customers in the retail electricity and gas markets respectively, and 70 per cent of customers in each market in aggregate.

The relatively large number of retailers (at least in electricity) together with the concentration of market share in only two or three of those participants raises the impression of a market structure that is oligopolistic with a competitive fringe. It is possible, at least theoretically, for a market with this kind of structure to exhibit a wide variety of outcomes. If the competitive fringe is vigorous and effective, it is possible for it to constrain the larger 'central' firms and ensure that the reduced price/quality bundle is similar to what would be expected in a market with a larger number of participants of more even size.

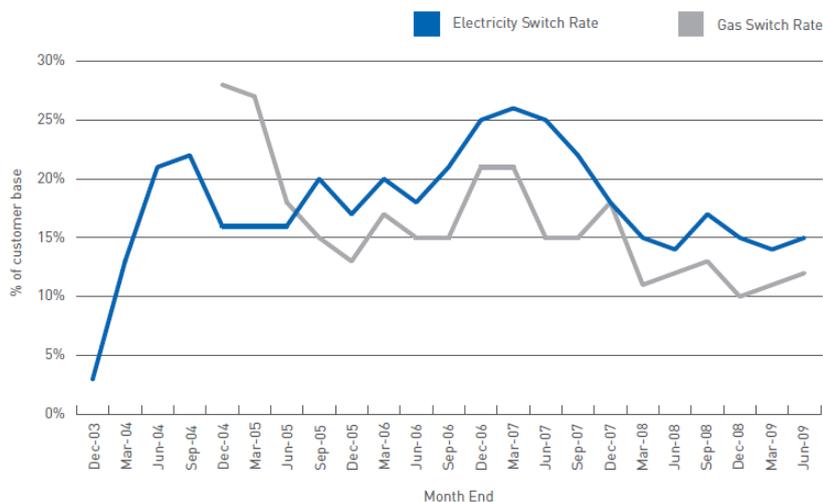
If, however, the fringe players are less vigorous they would not be expected to constrain the 'central' participants. In this case, consumers would more likely be offered a lower quality service and/or a higher price than they would be in a more competitive market.¹⁰

2.2.2 Market churn

Similarly, in a market with a vigorous competitive fringe, one would expect to see a significant proportion of customers switching from one retailer to another as their contracts end and they move to take advantage of competitive offers from rival retailers. As is apparent from Figure 6, South Australia has experienced a decline in customer switching in recent years.

¹⁰ This is consistent with most oligopoly models, although there are exceptions, such as Bertrand's theory of price based competition between oligopolists.

Figure 6 **Small customer transfers in SA retail energy markets**



Source: Essential Services Commission of South Australia, "Key Issues | Discussion Paper", February 2010, p11

Participants' views were somewhat divided on the meaning of this decline.

Some participants interpreted churn as a direct measure of competitive activity. These participants regarded the decline in churn as being directly correlated with the decline in door-to-door sales and evidence that competition has largely stalled in South Australia. As one participant put it, when doorknockers move out, churn rates drop; if/when they move back, churn will increase again.

These participants commented that the current level of churn can be attributed to customer move-ins only.

Other participants took the view that the churn rates observed in South Australia in the early years of full retail competition were unsustainably high, as they reflect a large number of customers moving away from the incumbent retailer along with an initial race for market share between the (then) new entrants. One participant suggested that retailers of other low-involvement products such as health insurance would not expect to observe churn rates as high as those observed in South Australia until recently.

In any event, the decline in churn rates since 2007, relative to the period before then, is consistent with the view that competitors on the fringe of the market have been less vigorous recently.

This decline is not necessarily sufficient reason to conclude that there is not a competitive fringe in South Australia, or at least the basis of one. In fact, there are a number of reasons to believe the contrary.

Firstly, several participants that are currently inactive in South Australia stand ready to enter the South Australian market whenever there is a fairly small reduction in the cost of doing business there. One participant gave the example of a recent opportunity to acquire customers at a lower cost than has been typical. Faced with this opportunity, this participant readily pursued it and took on extra customers.

Indeed, some participants have noted an easing in wholesale electricity costs following the recent milder summer and a corresponding increase in the level of marketing activity in South Australia in recent weeks.

Secondly, the participants who do not currently have customers in South Australia expressed a general intention/willingness to enter at an appropriate time. In some cases, the time is not appropriate for reasons related to 'where things are up to' in the participant's venture into other markets. In other cases, participants are deterred from entering South Australia by market conditions.

Nonetheless, a number of participants expressed the view that, if certain conditions changed, they would be likely to enter South Australia. These participants are generally influenced by the same conditions that have caused participants with existing customer bases in South Australia to adopt 'hold' strategies.

Thirdly, participants were asked to rank the various jurisdictions in order of their relative attractiveness as places to invest. Approximately half of the participants ranked South Australia second only to Victoria. Others saw New South Wales as a more desirable destination based on the very large number of customers in that state.

Each of these factors gives reason to believe that there is at least the basis of a competitive fringe in the South Australian retail energy markets. This suggests that if conditions for competition improve, the level of competitiveness in the South Australian retail energy market would follow.

2.3 Market performance

A detailed analysis of market performance is beyond the scope of this project.

It is noteworthy, though, that a number of retailers related their experience that customers are not always entirely focused in price. There are examples of customers who are paying a price significantly above the standing contract price (10 per cent or more), and who have been told as much by their retailer, but who elect to remain with that retailer.

Participants generally attributed this to either a particular service or payment structure offered by a retailer, or to customer loyalty. This would suggest that,

even though electricity and gas are technically homogeneous products, it is possible for retailers to distinguish themselves based on product quality.

In addition, a number of participants have experienced a general desire among South Australian retail energy customers to be with 'anyone but the standing contract retailers', even if this means paying a slightly higher price. Following on from this, many participants regard South Australian customers as genuinely interested in choosing their energy retailer(s) and, within the confines that energy products are low-involvement products, willing to move between suppliers to find the best deal.

2.4 The value represented by South Australian energy customers

Most of the participants measure their success in retail energy markets in terms of the value that customers represent to their business. The particular metric used varies from business to business, with some businesses focussed on gross margin and others on incremental contribution to earnings before interest and tax (EBIT), but the underlying concept is similar.

The exception to this general pattern is that one participant is more focussed on retail customer numbers. This is driven by the fact that stock market analysts place weight on this figure in evaluating relevant businesses. This participant takes the view that, for the most part, any customer is better than no customer.

This difference in success measure is reflected in the participants' marketing strategies for South Australia and other jurisdictions. Participants that are focussed on the value of customers typically see South Australia as one of a number of places where they could direct their efforts. They will choose between these places based on their assessment as to which will deliver the best return on marketing effort.

Generally speaking, participants regard the cost of acquiring a customer as approximately constant around the country, so a given amount of marketing effort is likely to produce the same number of customers wherever that effort is made.

On the other hand the value each customer represents to the participant differs significantly around the country due to differences in the volume of energy consumed, price paid, the risk that price will not be sufficiently flexible to allow for changes in cost while the customer remains with the participant, and the margin.

In making this choice, some participants regard South Australian customers as being more 'sticky' than customers in other jurisdictions. This means that, all

else being equal, they can represent a higher level of value than customers in other jurisdictions. However, at the same time, they also represent a greater commitment and therefore a higher degree of risk.

Some participants regarded this 'stickiness' as an inherent characteristic of South Australian customers, while others saw it as a function of the reduced marketing activity, with customers staying with existing retailers because competitors are not trying to recruit them.

Still other participants saw no difference between jurisdictions, with South Australian customers no more or less likely to churn away from retailers than their counterparts in other states.

There are a number of factors that contribute to a reduction in the value that South Australian customers represent to energy retailers. Participants unanimously regard the standing contract price as too low to allow them to supply South Australian customers and earn a return commensurate with the risks involved in the South Australian market.

This issue is discussed further in section 3.

3 The regulated retail price cap

The retail price of both electricity and gas for small customers is subject to regulation in South Australia. AGL is compelled to offer a 'standing contract' to small electricity customers and Origin Energy is compelled to offer a 'standing contract' to small gas customers.

The price of electricity and gas under these standing contracts is determined by the Commission pursuant to the relevant industry Acts. The terms and conditions of the contract are also determined by a regulatory process.

The most recent determination of the electricity retail standing contract price was made in 2007 for a three year period applicable from 1 January 2008.¹¹

The gas retail standing contract prices currently applicable were determined in early 2008 and took effect for a three year period commencing on 1 July 2008.

Retailers other than the 'prescribed retailer' are able to determine prices as they see fit without regard to the standing contract price (referred to as 'market offers' or 'market contracts'). However, as consumers have recourse to the standing contract prices, there is a theoretical upper limit on the price that consumers are likely to be willing to pay on market contracts.

In practice the regulated price is not an absolute upper limit, as some participants have found that customers are willing to pay prices above the standing contract price in some circumstances, such as in return for certain specialised terms and conditions.

Another example is that, many consumers choose renewable energy products at prices higher than the standing contract price.

Some participants have observed that customers are unlikely to accept a higher price than the standing offer when they switch to a new retailer. However, once they have switched, customers appear to accept increases which result in their tariff being above the standing offer tariff.

A couple of the retailers interviewed are currently charging prices above the standing offer price. Even though the customers are aware of this, they have not switched back to the standing offer price.

Nonetheless, there is a limit on the extent to which customers are prepared to pay more than the standing contract price. Therefore, while it is only the

¹¹ At the time of writing this report, the Commission was in the process of determining the price to apply from 1 January 2011 and this report will feed into that process.

prescribed retailer that is required to offer the standing contract price, the fact that it exists limits the price that other retailers can charge.

The level of the retail standing contract price for electricity is discussed in section 3.1 and for gas is discussed in section 3.2. Changes to the form of retail price regulation are discussed in section 3.3 with the objective for retail price regulation discussed in section 3.4.

3.1 Standing contract price for electricity

The three year path for the standing contract price for electricity was determined using the building block approach, comprising estimates of three key items, namely the wholesale electricity cost (WEC), retail operating cost and retail margin. This is depicted in Figure 7 below (the values are stylised for illustrative purposes and are not to scale).

Figure 7 **Building block approach to determining retail electricity price**

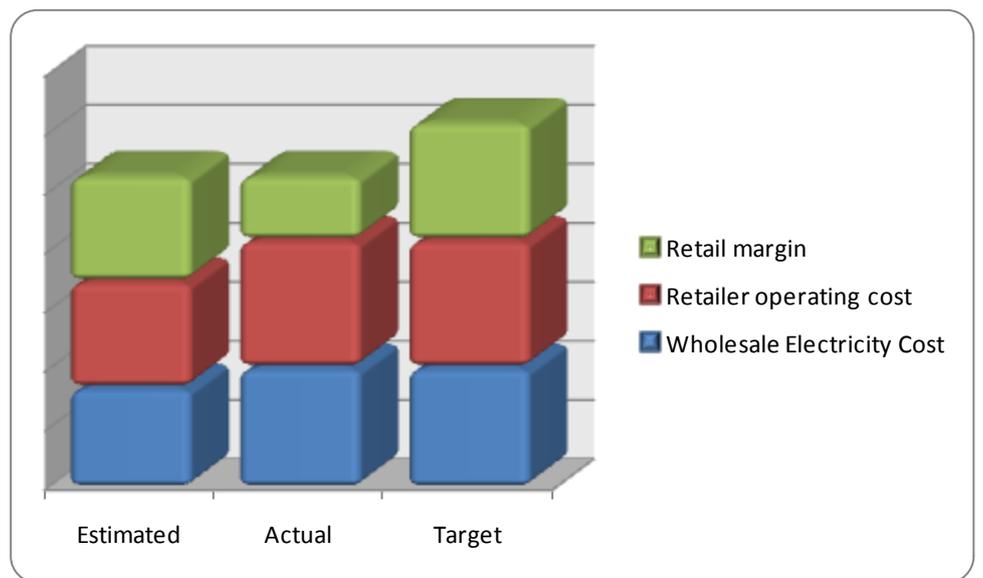


Figure 7 illustrates how, in the participants' view, the retail margin has been squeezed by the fact that both the wholesale electricity cost and retail operating cost were underestimated by the Commission in its determination compared to the actual costs that have been incurred.

The target building block illustrates the participants' target retail price, taking account of the higher actual retail operating cost and wholesale electricity cost as well as the participants' target rate of return as adjusted to reflect the higher risk in the South Australian retail market compared to the market in other jurisdictions. Each of these issues is discussed further below.

3.1.1 Wholesale electricity cost

Participants have the view that, since 2008, the average wholesale electricity cost has been higher than was anticipated when the price path was determined. In fact, many of them consider that the actual wholesale electricity cost could not reasonably have been predicted in 2007, making this particular part of the Commission's task impossible.¹²

Participants attributed the difference between actual and expected levels of the wholesale electricity cost to a variety of causes. The actual causes cited by participants depend on their perspective.

In summary, they tend to agree that costs first rose with the drought in 2007. Some take the view that this was further exacerbated by extreme weather events experienced in South Australia in 2008 and 2009 and some, but not all, attribute this to the bidding behaviour of Torrens Island Power Station.

These events lead to an illiquid contract market and a volatile spot market. These issues are discussed in further detail in section 4.

3.1.2 Retail operating cost

Participants also consider that the Commission underestimated the cost of operating a retail business for the 2008-10 period. For example, one participant referred to the Commission's determination of "about \$90 per customer less a few percent per year". In this participant's experience, the actual operating cost in South Australia is approximately one and a half times this amount and has been rising over time.¹³

Of the various components of their operating cost, retailers were most concerned about the Commission's approach to acquisition and retention costs.

The participants consider the cost of retaining existing customers to be significantly less than the cost of acquiring new customers. Essentially, the fact that existing customers do not need to be acquired makes servicing them cheaper.

¹² This is not to say that they necessarily agreed with the Commission's determination when it was made, just that they too have been surprised by the extent to which wholesale prices have increased.

¹³ This participant was referring to increases independent of the various items that have been 'passed through' since 2008.

Accordingly, participants consider that the cost of operating an incumbent retailer, with an existing customer base, is lower than the cost of operating a non incumbent retailer, which needs to acquire all of its customers.

Regardless of whether parameters such as the wholesale electricity cost and other components of the retailer operating cost were estimated correctly, participants expressed the view that the methodology the Commission applied in determining the current price path was focussed on a price that would inevitably have impeded competition in the market.

As is discussed below, participants generally consider that, if competition in the retail energy market is to be facilitated, the Commission needs to consider the acquisition costs that a prudent non incumbent retailer would incur when setting the regulated retail price.

3.1.3 Retail margin

The participants were all of the view that the standing contract price has been too low for several years which has eroded the retail margin and the headroom which would facilitate competition in the retail energy market.

Participants referred to two distinct problems resulting from this.

Firstly, 'as things have turned out', the return in the South Australian retail energy market has been less than the Commission originally intended. Thus their incentive to compete for retail customers has been limited, as has their ability to do so.

Secondly, as is discussed in section 4 below, participants also consider that the South Australian wholesale electricity market has been significantly more risky in recent years than either the Commission expected in determining the price path or than the corresponding markets in other states. Some participants took the view that, even if the Commission's intended margin had been earned, this would have been insufficient given the risks.

This is reflected in the third column in Figure 7, which shows an increased retail margin based on (stylised) actual retail operating and wholesale electricity costs.

3.1.4 Level of retail prices in South Australia and interstate

Another issue that was raised is the comparison between the level of the retail price cap in South Australia and retail prices in other jurisdictions. One participant in particular considers that retail prices in South Australia and the Eastern States are very similar and has the perception that South Australians expect this to continue.

However, in this participant's experience, fuel and other costs are not the same in South Australia as elsewhere making the parity of retail prices unsustainable. This participant took the view that it is important to allow South Australian prices to reach their own level, independently of prices in other jurisdictions with a different underlying cost structure.

3.2 Standing contract price for gas

In comparison to the discussion on the standing contract price for electricity, there was little discussion by participants on the standing contract price for gas. This has not been as much of a concern for participants as they are not active in the gas market.

The main issue raised regarding the standing retail contract price for gas was the retail margin. As the average gas customer has low consumption relative to customers in Victoria in particular, the retail margin percentage translates to a very low dollar margin. This dollar margin can be eroded quickly if something goes wrong, for example, requiring a call to the call centre or if there is a billing issue.

Gas market issues are discussed in more detail in section 5 below.

3.3 Changes to the form of retail price regulation

As discussed previously, most participants hold the view that competition in the South Australian retail electricity market has been diminished by the existence of retail price regulation and the level of the standing contract price. A number of them consider the source of the problem to be the fact that the South Australian regulatory regime does not allow for a price path to be made for less than a three year period, regardless of the circumstances.

The participants generally consider that the wholesale price of electricity has varied enough from the Commission's 2007 expectations that, if it had the flexibility to adjust the price path, the Commission would probably have done so. If this had happened, participants generally hold the view that this would have enabled them to compete more vigorously in South Australia than they have done in recent years.

A number of participants noted that, to provide the Commission with extra flexibility in making and adjusting price paths, the South Australian Government has recently introduced amendments to both the Electricity and Gas Acts that will, if passed, enable the Commission to make a price path with less than a three year span. In effect, this will allow the Commission to adjust an existing price path in a situation of special circumstances, without requiring that the new determination last for three more years (at least). The participants

regarded this as a positive step, likening it to the flexibility provided by the re-opener mechanism in New South Wales and Queensland's approach of setting annual prices.

In addition to this change, participants were generally supportive of the Commission's proposed index based or retail price movement (RPM) approach. Broadly, the RPM approach is an attempt by the Commission to allow the standing contract price to be sufficiently flexible that it will change with the cost of operating an energy retail business. It will do this by linking the level of the standing contract price to market contract prices, thus allowing changes in the market to feed into the standing contract price without the need for the Commission to 'reopen' the price path determination.

The advantage of the RPM approach for retailers is that it would allow them to be confident of their ability to manage risks, such as the variability in the wholesale electricity market, by passing increased costs on to consumers.

If the minimum efficient cost of retailing electricity rises more quickly than was anticipated when the price path determination was made, there would be capacity for retail prices to increase as input costs increased.

At the same time, if for example wholesale electricity prices decrease, competition between retailers would place downward pressure on the market contract prices to below the standing contract price. Consumers would be able to reduce their energy cost by switching, including by switching to a market contract with the incumbent retailer if that is what they prefer.

From the consumer's perspective the risk is that this will allow retailers to increase prices regardless of costs. While this was seen as a legitimate concern for Government to have, participants were reasonably confident that there is sufficient competition, or potential competition, in the market to prevent this from happening. This view was particularly strong among participants with experience in generation as well as retail.

Similarly, participants did not see a high chance that the RPM would allow generators to drive retail prices up to their own benefit.¹⁴

3.4 The objective of retail price regulation

While the participants were generally supportive of the proposed changes to the retail price regulatory mechanism discussed above, these were seen as second best to the participants' preferred position.

¹⁴ This question was particularly relevant where the participant had suggested that AGL's bidding behaviour was responsible for increases in wholesale electricity cost, see section 4.3.1 below.

Participants were unanimous in their view that retail price regulation is unnecessary and/or harmful to competition in the market and that it should be phased out. However, they also acknowledged that the South Australian Government has a firmly held view that it should retain retail price regulation. Given this, a number of participants take the view that the rationale for retail price regulation should be closely considered.

Two broad rationales were discussed.

The first rationale for regulating retail energy prices is similar to that for the economic regulation of natural monopoly businesses, namely to prevent the (regulated) business from restricting output and increasing prices to earn monopoly profits.

In a monopoly, competition cannot be relied upon to prevent the supplier from raising price and restricting supply. The result is that an inefficiently small quantity is traded at an inefficiently high price. Relative to a more competitive market there is a reduction in total welfare and a transfer of welfare from consumer to producer. In the majority of cases, this is managed by allowing competition to prevail and, for the most part, leaving the market to find the optimal price/quality mix and make other tradeoffs.

In natural monopoly situations, such as the transmission and distribution network levels of the electricity industry, this is not possible and economic regulation is employed to provide the constraint that would otherwise be provided by competition. The Commission's (past) regulation of the electricity and gas distribution industries is an example.

In regulating distribution industries, the Commission was required to ensure that price and service outcomes provided a fair balance between the interests of both users of distribution services and the provider of those services. In practice, it sought to ensure that the price charged by the distribution business did not reflect more than a reasonable rate of return on the investment that a prudent business would make in the industry. Allowances were also made for a number of matters such as efficiency improvements over time.

The participants' perception is that the Commission took a similar approach to this in determining the current retail energy price paths. In its recent discussion paper regarding the review of its price regulation methodology, the Commission repeated that its stated approach to the 2007 electricity price determination was to establish a price path consistent with the lowest possible

costs that would be incurred by an efficient standing contract retailer. Impliedly, this refers to a large retailer with an existing customer base.¹⁵

The participants who raised this issue generally took the view that this is not the appropriate basis for regulating retail energy prices in South Australia. They argued that the number of competitors in South Australia, and the periods of strong competition that have been observed in the market, illustrate that the incumbent energy retailers are not natural monopolists. These experiences show that, when sufficient headroom is included in the regulated retail price, competition in the retail market will limit the ability of any one retailer to charge inefficiently high prices. However, when that headroom is lacking, competition is suppressed.

The participants also hold the view that the costs that might be incurred by an efficient standing contract retailer are lower than those which would be incurred by a prudent new entrant. The main examples cited were the cost of acquiring customers and the economies of scale which the incumbent retailers have and which allow them to spread the fixed costs of administrative systems across a much larger customer base.

A standing contract price that is determined based on the costs incurred by an incumbent retailer would not include an allowance for these costs and, accordingly, would not provide sufficient 'headroom' for new entrants to make entry profitable. In this way, regulated retail prices based on the minimum costs that would be incurred by an existing retailer with an established customer base can actually prevent entry from occurring.

Another issue that was raised was the fact that smaller retailers are likely to be less established businesses than an incumbent retailer and thus may face a higher cost of finance. One participant discussed the importance of having a credit rating, which opens up new possibilities for financing and hedging that are not otherwise available. While an efficient standing contract retailer may have a credit rating, this will not always be the case for a smaller retailer, placing the smaller retailers at a relative disadvantage.

While the participants consider the notion of basing a regulated retail price on minimum efficient costs to be disadvantageous to competition, some acknowledged the role of a regulatory price cap in protecting customers from break-outs of excessively high prices.

Consistent with the Australian Energy Market Commission's earlier conclusion that energy is a low involvement product, some of the participants suggested

¹⁵ Essential Services Commission of South Australia, *Review of energy retail price setting methodology Discussion Paper*, October 2009

that there is a subset of customers who would be unlikely to switch from one retailer to another even if the standing contract price rose significantly. While this may be a rational decision in light of the consumer's preferences and the cost of search, it may also reflect the complexity of the energy market and the consumer's inability to protect their own interests.

In this circumstance, the standing contract could be seen as a 'safety net' that provides an upper limit on price, although the participants were of the view that this safety net is generally unnecessary in a competitive market, where competition itself provides the safety net.

Given that the South Australian Government has no intention of removing retail price regulation at this time,¹⁶ the participants suggested that the Commission should take the view that the optimal role for the regulated retail price is to protect consumers from excessively high prices. This would imply a relatively 'loose' price cap set at a level that is more consistent with the costs incurred by the new entrants.

If this approach is taken to setting the regulated price cap, the participants expect that customers would move away from the standing contract to market offers, and thus not be required to pay the higher standing price.

However, some participants hold a concern that the South Australian Government may allow the standing price to increase, but not to a level that allows for increased competition. This was described as offering the worst possible outcome, with consumers paying an increased price for energy but not being offered the option of switching to an alternative supplier in an effectively competitive market.

¹⁶ Refer, for example, to the South Australian Minister for Energy's remarks when tabling the legislative amendment discussed here, available online:
http://hansard.parliament.sa.gov.au/pages/loaddoc.aspx?e=1&cD=2010_05_12&c=0

4 The South Australian wholesale electricity market

As discussed in section 3, one of the main factors impacting on the competitiveness of the South Australian retail electricity market is the cost of wholesale electricity. The participants all agreed that the wholesale cost of electricity was higher during the current price path period than was anticipated when that price path was determined in 2007, thus reducing the 'headroom' in the retail electricity tariff.

The wholesale electricity market is described in section 4.1. The two key issues in the South Australian wholesale electricity market are the liquidity of the contract market, which is discussed further in section 4.2, and the volatility of the spot market, which is discussed in section 4.3.

Some of the retailers are vertically integrated, that is, they have their own generation capacity which mitigates their exposure to the risks in the wholesale electricity market. This is discussed further in section 4.4

4.1 The wholesale electricity market

The NEM was established in 1998 and now supplies electricity to customers in Victoria, New South Wales, the Australian Capital Territory, Queensland, South Australia and Tasmania.

Wholesale trading in electricity is conducted as a spot market where supply and demand are instantaneously matched. Generators offer to supply the market with specific amounts of electricity at particular prices. Offers are submitted every five minutes of every day. From all offers submitted, the Australian Energy Market Operator (AEMO) determines the generators to produce electricity based on the principle of meeting prevailing demand in the most cost-efficient way. AEMO then dispatches these generators into production.

The spot price is determined based on the price bid by the marginal generator. The maximum spot price, referred to as the Market Price Cap, is currently set at \$10,000 per MWh but will increase to \$12,500 per MWh from 1 July 2010.

The minimum spot price, referred to as the Market Floor Price, is set at -\$1,000 per MWh.

A generator's bidding strategy is very dependent on its type, particularly its short run marginal cost (SRMC) and the speed with which it can ramp output up and down.

Base load generators are typically expensive to construct, have a low SRMC and take a long time to ramp output up and down. They will often bid at very low prices to ensure they are dispatched.

Peaking generators are typically less expensive to construct, have a higher SRMC but can ramp output up and down quickly. They will typically only operate when demand is relatively high.

Intermediate generators, such as Torrens Island, fall between these two extremes.

More recently there has been an increase in wind generation in South Australia. The output from a wind generator is intermittent and, except when there are constraints on the network, will be dispatched whenever electricity can be generated. The wind generators earn revenue from the electricity generated as well as through the sale of renewable energy certificates that are created.

Characteristics of the principal non-renewable generators in South Australia are set out in Table 3.

Table 3 **Principal South Australian non-renewable generators, in ascending order of SRMC**

Generator	Operating company	Fuel source	Capacity (MW)	SRMC ^a (\$ per MWh)
Northern	Flinders Power	Brown coal	540	16.06
Playford	Flinders Power	Brown coal	240	25.80
Pelican Point	International Power	Natural gas	478	30.26
Osborne	Flinders Power ^c	Natural gas	185	38.52
Torrens Island B	AGL	Natural gas	800	48.22
Torrens Island A	AGL	Natural gas	480	52.23
Ladbroke Grove	Origin Energy	Natural gas	84	62.22
Dry Creek	International Power (Synergen)	Natural gas	156	72.67
Quarantine	Origin Energy	Natural gas	191	73.04 ^b
Mintaro	International Power (Synergen)	Natural gas	90	91.78
Hallett	TRUenergy	Natural gas	183	106.07
Port Lincoln	International Power (Synergen)	Oil	50	391.00
Snuggery	International Power (Synergen)	Oil	63	412.25
Angaston	Infratil Energy Australia	Oil	50	414.37

^a SRMC for 2009-10

^b SRMC for Quarantine prior to expansion.

^c Operated by Flinders Power on behalf of its owners, ATCO Power and Origin Energy

Data source: Energy Supply Association of Australia, *Electricity Gas Australia 2009*, pages 58-59; Report prepared for the Inter-regional Planning Committee by ACIL Tasman, *Fuel resource, new entry and generation costs in the NEM*, page 48; Australian Energy Market Operator, *Electricity Statement of Opportunities*, 2009, page 4-4 (referenced for increase in Quarantine capacity for summer)

As demand increases relative to supply, generators with a progressively higher SRMC will be dispatched. As a result, the spot price will increase.

The demand for electricity varies significantly depending on the time of day and the time of year. Demand is generally low overnight and higher during the day with observable peaks in the morning and afternoon. Demand is higher in summer and winter than in autumn or spring.

Demand in South Australia is characterised by relatively infrequent 'peaks' where demand can rise to more than double its average level for a few hours on hot summer afternoons. The 'peakiness' of electricity demand is greater in South Australia than in other jurisdictions.

To manage the degree of volatility in the spot market, participants in the NEM typically lock in a firm price for electricity that will be produced or consumed at a given time in the future. These contracts serve to substantially reduce the financial exposure of market participants and contribute to spot market stability. They are known as derivatives, and include swaps or hedges, options and futures contracts.

Generators will generally only contract around 80 per cent of their output so that they are able to participate in the spot market some of the time and to reduce their exposure if they have a break down when spot prices are high.

4.2 Liquidity of the contract market

Prior to 2008, the South Australian wholesale electricity spot prices were relatively low and stable.

During this period many of the smaller South Australian retailers entered the market. Given the stability in the spot price, a number of these retailers established themselves in the market by being relatively unhedged, preferring to take the risk of pool price volatility than the cost of risk management.

The volatility in the spot price increased in 2008 and 2009, compared to 2006 and 2007, through the impacts of the drought, extreme weather events and the uncertainty associated with the potential introduction of a carbon price. As a result, the average spot prices also increased. Some participants were strongly of the view that the generator asset swap between AGL and TRUenergy also contributed to these changes. However, some participants were of the view that the timing of the asset swap was coincidental.

One retailer indicated that they lost a lot of money in just a couple of days through the increased volatility in the spot price. As a result they, and others, realised the high risk associated with participating in the South Australian

market without contract cover and so went to the market to seek that cover. The demand for contract cover exceeded the supply.

Now that participants are seeking contract cover, they are of the view that the South Australian contract market is illiquid.

While some were of the view that there were no contracts available in the South Australian wholesale electricity market, others were of the view that contracts were available but at a price that could not be sustained with the headroom in the retail tariff and for too short a period. The buyers were generally of the view that the lack of liquidity was due to a lack of sellers in the market due to the power held by AGL as the dominant retailer and as a dominant generator with Torrens Island.

One retailer advised that it would be more active in the South Australian retail electricity market if a 3 – 4 year load following hedge contract could be secured for a particular strike price.

The strike price suggested by the retailer is at a level that it believed could be reasonably sustained under the current deregulated retail price cap. However, it needs to be compared with the price a generator would need to secure to earn a reasonable return.

ACIL Tasman's analysis indicates that, prior to the asset swap between AGL and TRUenergy, the dispatch weighted average price for Torrens Island was around \$70 per MWh. There is thus no incentive for AGL to enter into contracts for Torrens Island at a lower price than the price they could reasonably expect to get through the spot market.

Our discussions with some of the participants indicate that AGL is now less active as a seller in the contract market because the prices prepared to be paid by retailers are less than it could obtain through the spot market.

A contract was required for a 3 – 4 year period to provide cover for the length of a typical retail contract. Other retailers indicated that they were seeking contracts for a similar period. However, with the uncertainty surrounding the potential introduction of a carbon price, 3 – 4 years is considered to be a long period of time by the sellers of contracts.

While some generators are comfortable entering into contracts with a carbon price clause to cover the risk, others are more averse to entering into a contract of this length.

Carbon price uncertainty is discussed further in section 4.2.1 below.

A number of participants also commented that, prior to 2008, financial participants or speculators, such as Westpac and Barclays, were active in the

South Australian market, providing a greater range of financial products. These financial participants “got burnt with weather insurance products”, particularly in the first quarter of 2008 with 15 consecutive days of hot weather, and left the market. South Australia was considered to be too dangerous a market, particularly given its relatively small size.

We were advised that a number of potential financial participants are currently looking at the Australian market, such as JP Morgan, Morgan Stanley and Merrill Lynch, however it is uncertain as to whether these firms are considering the South Australian market.

One participant suggested that the Commission could examine the Sydney Futures Exchange's market maker obligations¹⁷ and related approaches and determine whether there are steps that can be taken to increase the number of parties actively trading in South Australian contracts.

4.2.1 Carbon price uncertainty

A number of participants saw future carbon policy as relevant to the competitiveness of the South Australian retail energy markets, although views were widely varied.

At one end, a participant with both generation and retail interests in South Australia suggested that the single most important barrier to liquidity on the forward contract markets is the lack of certainty surrounding future carbon policy.

For this participant, the uncertainty became significantly greater early in 2010 when the opposition announced its intention to pursue a direct action approach to carbon policy rather than the broad based emissions trading scheme which had been opposition policy before that. Prior to this change in position, the uncertainty had been limited to the timing and price that would emerge from the carbon policy debate however with this change, the range of possible effects is much broader than was originally imagined.

This particular participant is reluctant to enter into a financial contract that does not deal appropriately with the carbon risk and, in the absence of a firm guide even as to the form of carbon policy, it is proving difficult, if not impossible, to reach agreement as to the form of the necessary carbon clauses.

¹⁷ These are a series of obligations that require the market maker to make certain offers available under certain conditions. For a description see Frino, Aspris and Lepone, “Does the Introduction of a Market Maker Improve Market Quality: Evidence from the SFE 3 Year Treasury Bond Options Market?”, April 2007, accessed 31 May 2010, available online at: http://www.sfe.com.au/content/sfe/trading/qmm_200704.pdf. See also http://www.asx.com.au/products/options/trading_information/market_makers.htm

At the other end of the spectrum, a similarly large participant with both generation and retail interests saw carbon policy as a relatively minor issue in the scheme of things. This participant noted that South Australian generators have a carbon intensity that is invariably no greater than their 'opposite number' in other states. On the assumption that generators would receive assistance for carbon costs along the lines described as part of the Carbon Pollution Reduction Scheme, this participant did not see carbon cost as a barrier to entering into financial contracts.

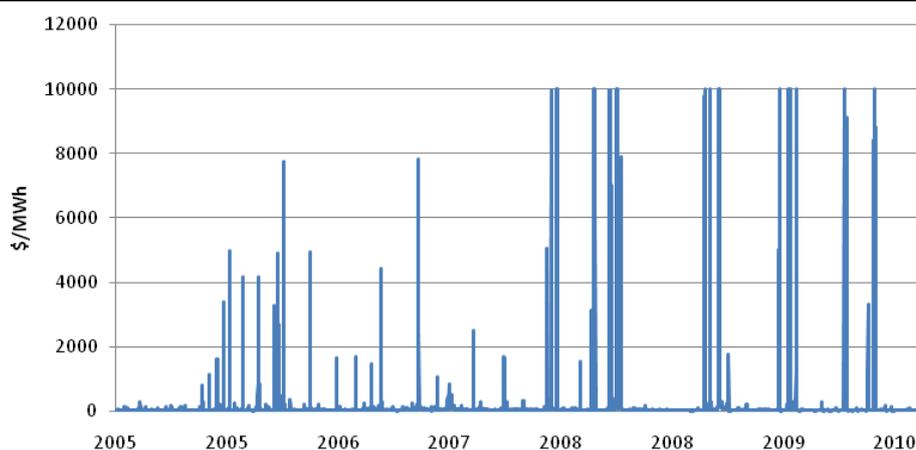
That said, the participant agreed that removing the uncertainty could only improve liquidity.

4.3 Volatility of the spot price

If the retailers were able to secure contracts for their customer load, the volatility of the spot price would not be such an issue. However, in the absence of a liquid contract market, the volatility of the spot price has become a major barrier to competition.

A casual observation of the spot price data for South Australia shows that the market price cap has been reached much more frequently over the last three years than in the years prior. This is shown in Figure 8 below, which shows the spot prices between 12:30 and 6:30 pm each day in November to March from 2005 to 12 March 2010.

Figure 8 **South Australian wholesale spot electricity prices, November to March, 12:30pm to 6:30pm, 2005 to 2010**

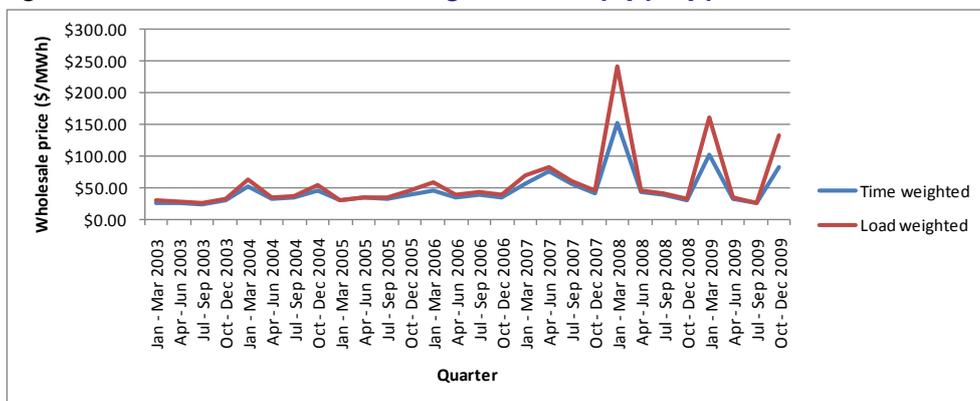


Data source: AEMO

The increase in both the level and volatility of wholesale electricity spot price is also illustrated by the fact that the time weighted average price of electricity of electricity in South Australia is substantially lower than the load weighted

average price, and increasingly so in recent years. These two statistics are shown in Figure 9 below.

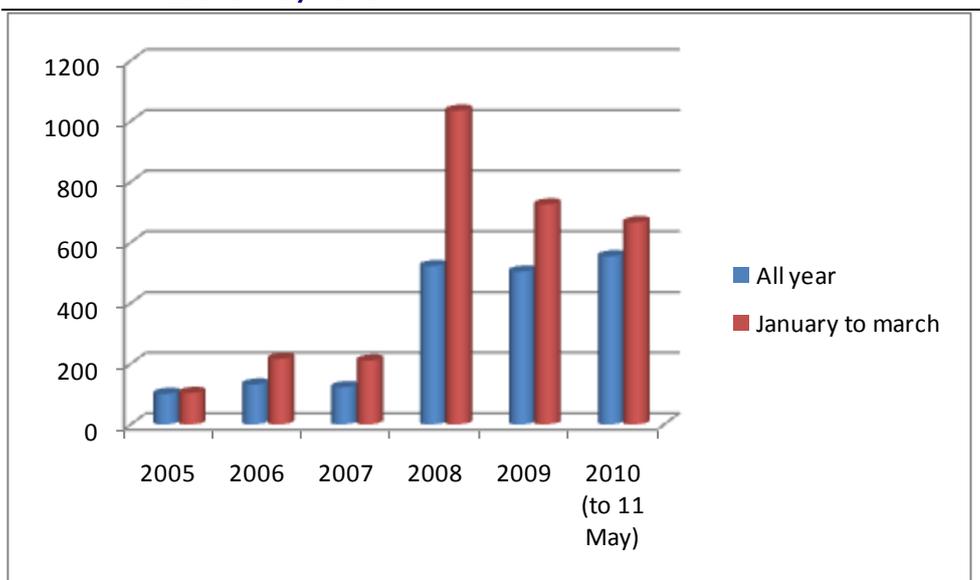
Figure 9 South Australian average electricity (spot) prices 2003 to 2009



Data source: AEMO

Not only are South Australian electricity prices highly volatile but, as the Commission has noted, this volatility has increased markedly in recent years, particularly during the warmer months. This is illustrated in Figure 10 below, which shows the standard deviation of spot price in each of the last five years, for the whole year and for the months from January to March.

Figure 10 Standard deviation of South Australian electricity spot price – 2005 to May 2010



Data source: AEMO

The variability of electricity prices on the wholesale (spot) market is now approximately four or five times higher than before 2008. For a retailer with customers who pay a constant price for electricity, regardless of the time of

use, this variability in the spot price of electricity creates a substantial risk in the absence of appropriate contracts.

The volatility in the spot price, coupled with the lack of liquidity in the South Australian contract markets, is a significant part of the reason why most retailers are not actively seeking to increase their customer numbers.

A number of sources for the increased volatility of prices were raised by participants, including the market concentration and bidding strategy of Torrens Island Power Station, the substantial wind farm capacity in South Australia, extreme weather events, technical failures and carbon price uncertainty. Each of these factors is discussed in the following sections.

4.3.1 Market concentration and bidding strategy of Torrens Island Power Station

A number of participants pointed to the bidding behaviour of the Torrens Island Power Station, especially on high demand days, as the underlying cause of the increased volatility in the South Australian spot price. In summary, these participants see AGL, as the owner of Torrens Island, as being 'in the box seat', with the ability to lift spot price to the market price cap when demand is high, thus earning a substantial profit on a few key days.

Participants who hold the view that the volatility is caused by AGL's bidding behaviour also tend to see this as an inevitable result of AGL's large, vertically integrated nature. These participants argue that AGL's bidding behaviour at Torrens Island is, at least partly, an attempt to suppress competition in the retail market. It is very important to note, though, that this was not a unanimous view.

A number of participants (other than AGL) did not regard AGL's bidding strategy as either inappropriate or the cause of the increased volatility, high prices or financial market illiquidity. For the most part, these were participants with experience in both retail and generation. In summary, these participants saw a number of causal factors, including the increased penetration of wind, very unusually hot weather in summers 2007/08 and 2008/09 and various technical failures that have taken place in the NEM.

These participants also generally took the view that the returns AGL is likely to be earning, while high on certain days of the year, are not likely to be high on average over a year, certainly not over a year with relatively few very hot summer days in Adelaide such as in 2009/10.

4.3.2 Substantial wind energy capacity

Some participants took a broader view of the market and were of the view that the very high penetration of wind energy capacity in South Australia is at least partially responsible for the volatility in spot prices.

These participants pointed out that the wind energy capacity in South Australia now equals, on a nameplate basis, more than half of the average daily demand and one quarter of the maximum demand.

Wind generation has a zero marginal cost, because it has no fuel cost, so it has a strong incentive to maximise the extent to which it is dispatched, even at very low spot prices. Regardless of the bid price, assuming that it is not contracted, it will receive the spot price.

The revenue for the energy is in addition to the revenue stream from renewable energy certificates that is not available to non-renewable generators. When this second revenue stream is taken into account, it is rational for a wind energy generator to bid down to negative values to maximise profitable dispatch.

This approach to bidding has seen wind energy generators recently flood the market with energy. In 2008/09, wind provided 18 per cent of the electricity consumed in South Australia, up from two per cent in 2004/05 and zero per cent in 2001/02.¹⁸ The Electricity Supply Industry Planning Council expects the output of wind farms in South Australia to nearly triple from 2,078 GWh in 2008/09 to 6,061 GWh by 2012/13.

A number of participants are of the view that the increase in the output from wind energy generators is forcing prices down for much of the time. As illustrated in Table 4 below, in addition to an increase in the number of price 'spikes' in the South Australian spot price, there has also been an increase in the number of negative price events.

These participants are of the view that the relatively infrequent high price events are required to offset the negative price events so that thermal generators in South Australia are able to fully recover their costs. AGL's bidding strategy at Torrens Island is therefore considered to be a survival strategy.

¹⁸ Electricity Supply Industry Planning Council, Annual Planning Report 2009, p. x

Table 4 **Negative price events in South Australian wholesale (spot) electricity prices – 2005 to 2010**

Year	Number of events	Average (negative) price (\$/MWh)	Unweighted value of events (\$/MWh)
2005	0	-	
2006	1	-\$160.37	-\$160.37
2007	10	-\$179.29	-\$1,792.89
2008	51	-\$67.37	-\$3,435.96
2009	94	-\$66.36	-\$6,237.37
2010 ¹⁹	18	-\$17.36	-\$312.44

Data source: AEMO

The wind energy generators will also displace other forms of generation. The marginal generator that will be displaced by the wind energy generator will depend on the demand at that time, but will generally be gas-fired. At some times of the day Torrens Island will be the generator that is displaced by wind energy generation.

As the penetration of wind farms increases, the output from gas-fired generators decreases. To ensure that its shareholders receive adequate returns, the average price that a gas-fired generator requires during the shorter periods that it is operating is higher than it would be in the absence of wind energy generators. The marginal generators will therefore seek to bid up the spot price where possible.

The uncertainty regarding the returns that can be earned by gas-fired generators with the increasing penetration of wind energy generators is also potentially delaying investment decisions in new capacity. However, investment in gas-fired generators is required to meet the growth in South Australian peak demand.

Wind energy generators cannot be relied upon to produce electricity during times of peak demand because the wind cannot be relied upon to blow at those times. A number of participants described the tendency for the South Australian wind energy generators to 'drop off' during the peak demand events. One participant described wind farms in South Australia as providing large quantities of energy but next to no (firm) capacity.

In its planning, Australian Energy Market Operator currently only relies on 9 per cent of the name plate capacity rating of wind energy generators during times of peak demand.²⁰

¹⁹ To 11 May 2010, noting that the majority of negative price events occur in the second half of the year.

In conclusion, the gas-fired generators are required to be able to supply electricity during times of peak demand, but the amount of time they are operating is reducing as the penetration of wind energy generators is increasing, forcing them to earn higher prices when they do operate.

This outcome is consistent with concerns that were raised during the design of the Victorian Renewable Energy Target scheme by the Victorian Government in 2006.

The target for the Victorian Renewable Energy Target scheme was designed carefully to balance the impacts on existing generators, renewable energy generators and consumers. If renewable energy generation is introduced into the market at a rate that is greater than the increase in demand, then the demand supply balance changes resulting in a decrease in the average wholesale electricity cost.

While this is often regarded as a good outcome, it has a negative impact on the profitability of the existing generators – not only from the reduction in the wholesale electricity cost but also a reduction in output from the marginal generator.

To offset these impacts, and ensure a fair return to shareholders, the existing generators have an incentive to adopt different strategies to ensure their returns are maintained. This in turn may lead to a lower level of contracting and greater volatility in the wholesale electricity price.

In determining the target for the Commonwealth's Renewable Energy Target scheme, the impact on the existing generators was not considered. It is also not generally being considered by the state governments as they seek to secure a higher proportion of renewable energy generation for their state.

4.3.3 Extreme weather events

Another issue that was emphasised by AGL and other participants was the very unusual weather conditions that South Australia and the rest of the country have observed in recent years. While the most recent summer (2009/10) was relatively mild, the three before it were not.

During the 2007-08 summer, demand reached (then) record levels on a number of occasions. The overall seasonal peak was approximately 3172 MW, or almost 7.5 per cent higher than 2006. This peak was reached toward the end of a heatwave that was record setting for South Australia not in terms of the

²⁰ It is our understanding that this percentage is likely to be decreased based on recent performance data.

temperature reached as such, but the number of consecutive days of high temperature. The Electricity Supply Industry Planning Council noted that, had temperatures been higher, the peak in demand could have been higher as well.

The next year continued to be unusual in terms of weather, at least by comparison to history. In late January and early February 2009 South Australia experienced severe and prolonged heat wave conditions with various weather indices setting all time records and/or reaching 1 in 50 or 1 in 100 year levels. This was not confined to South Australia, though, with electricity networks throughout South Eastern Australia experiencing severe strain as electricity demand rose to unprecedented levels. There were a number of heat related power outages during this period.

Before the 2007/08 summer, drought was impacting the output of a number of large power stations in the Eastern States of the NEM, with flow on effects into South Australia in terms of the level and volatility of wholesale spot prices.

A number of participants took the view that these three years of highly unusual weather conditions could reasonably be expected to have caused significant volatility in wholesale spot prices regardless of the ownership of Torrens Island.

4.3.4 Technical failures

Another participant suggested that market price cap events can usually be traced to a 'stuff up' somewhere in the market, such as a generating unit tripping unexpectedly or a network element going out of service. In these situations, as is the case when the wind drops away, the market is very reliant on gas-fired peaking stations which, as discussed above, are likely to bid higher than they otherwise would due to the increased penetration of wind energy generators.

While ACIL Tasman has not attempted to identify potential 'stuff ups' that may have led to the various market price cap events shown in Figure 8 above, it seems reasonable to assume that at least some of them are attributable to this type of cause.

4.3.5 Carbon policy uncertainty

The introduction of an emissions trading scheme will result in a change in the dispatch order of generators with the SRMC of highly emissions intensive generators increasing relative to the SRMC of generators with a lower emissions intensity.

This may result in a reduction in output from some of the more highly emissions intensive generators, with the potential that some of these generators may retire earlier than they would otherwise.

The reduction in output may also be coupled with a drop in margin as the carbon price is not fully passed through. Rather the level of pass through of the carbon price will be determined by the marginal generator.

As a result there may be a significant reduction in the value of some generation assets, which may only partially be offset by the assistance currently proposed under the Carbon Pollution Reduction Scheme. This may lead to generators being in breach of loan covenants with lending institutions seeking to maximise the returns from the generators in the short term.

Return is a function of risk. To maximise returns in the short term, generators may therefore adopt a riskier strategy by contracting less and seeking to maximise the wholesale spot price.

Many of the participants are not fully aware of these potential impacts on the generators. However, one participant who is fully aware of this issue, indicated that this may be a factor in the bidding strategy for Torrens Island. In this regard, ACIL Tasman notes that much of the electricity market modelling of an emissions trading scheme indicates that Torrens Island is likely to retire shortly after the introduction of an emissions trading scheme.

4.4 Vertical integration

The retailers that are the most bullish about becoming more active in the South Australian retail electricity market if there is sufficient headroom in the retail electricity tariff are those with their own generation. Typically, these participants would not consider expanding their presence in the South Australian retail market unless they also expand their generation capacity.

This has several implications for the level of competitiveness in South Australia. First, the nature of generation that is contemplated as a means of backing retail market expansion is usually small scale and more costly than alternatives. The implication is that the cost of hedging physically using these smaller scale generators is higher than financial contracts would be expected to be in a more competitive market. This increased cost translates through to higher retail costs.

One participant said that the extra capital cost involved in hedging retail customers, given that financial hedging is not available, increases that business's required margin on retail customers above the margin required in Victoria.



ACIL Tasman

Economics Policy Strategy

Competition in South Australia's retail energy markets

Second, a retail expansion hedged physically by incremental generation capacity is a significantly slower venture than would be possible if the hedge was financial. The main difference is the lead time necessary to construct the generation asset. Similarly, the long lived nature of the asset means that the participant is likely to be more cautious than would be the case if it was contemplating a financial hedge.

5 The South Australian retail gas market

Of the participants that were interviewed, only four currently sell gas to small customers in South Australia, although all but two of the retailers have the necessary licence.²¹

Most participants consider gas to be a secondary product that they offer to their electricity customers, rather than as a stand alone business. While some participants would be willing to supply gas to a customer that acquired its electricity from elsewhere, none actively seek 'gas only' customers. For this reason, competition in the gas market is directly related to competition in the electricity market.

The main reason that participants in South Australia offer gas is to reap the benefit of being a 'dual fuel' retailer. A number of participants described the situation where a customer buys gas from one retailer and electricity from another. In this situation there is a significant risk that the gas retailer will entice the customer to switch to it for electricity as well, or vice versa. For this reason a customer who deals with two retailers is a riskier, and therefore more costly, proposition than a dual fuel customer.

Participants who do not supply both fuels invariably supply electricity only. These participants are typically happy to focus their efforts on electricity customers only as the market is considered to be large enough. While these participants would be very happy to supply electricity to a customer who buys gas from a competitor, this is not a segment of the market that they would target.

The value of South Australian gas customers to the energy retailers is discussed in section 5.1, while the cost of accessing gas is discussed further in section 5.2.

5.1 The value of South Australian gas customers

The main reason that participants do not supply gas to retail customers in South Australia is that there is very little value to them in doing so. In this respect, the South Australian market was described as being significantly different to Victoria.

An average Victorian retail customer uses 60 to 65 MJ of gas per annum whereas, by contrast, the average South Australian retail customer uses

²¹ Three retailers if PowerDirect is considered as a separate retailer to AGL.

approximately half that amount. This is due largely to the different climate and the fact that there is much less use of space heating in South Australia than Victoria.

To a retailer this means that the revenue they can expect to earn from a South Australian gas customer is about half what they might expect to earn in Victoria. The costs of supply, though, include a number of costs that are relatively fixed, such as customer acquisition and retention costs and the cost of developing and maintaining administrative systems etc. With the lower volumes in South Australia, the value that a South Australian gas customer represents to a retailer is limited.

As discussed previously in section 3.2, the dollar margins in a gas account are very small and can be easily eroded.

Many of the participants that supply gas also own gas-fired electricity generation plant. For these participants the opportunity cost of supplying gas to a retail customer is that they cannot use the same gas to generate electricity. Similarly, these participants are easily able to 'find a home' for gas that is not sold to retail customers.

A third factor relevant to the value of South Australian gas customers stems from the fact that many customers are dual fuel customers. The strong link between the two fuels means that, by taking on additional gas customers, a participant typically increases its exposure to the electricity market.

Given the relatively limited value represented by gas customers, participants indicated that any expansion of activity in marketing gas to retail customers would naturally be an 'electricity led' expansion. However, given that participants do not currently see sufficient value in the retail electricity market to warrant such an expansion, it is unlikely to happen in the gas market either.

Additionally, one participant indicated that it had been 'burnt' in the Victorian gas market and was therefore now reluctant to participate in any other gas market.

5.2 The cost of accessing gas

The gas used in South Australia is supplied by one of two routes, either the Moomba to Adelaide Pipeline System (MAPS) or the SEAGas pipeline.

MAPS, as its name suggests, transports gas from the Cooper Basin near Moomba to Adelaide. Two major laterals run off the pipeline, one to Pt Pirie and Whyalla and the other to Angaston and the Riverland. In total, including

the two laterals, the pipeline system runs for 1,185 kilometres.²² In future, there is the prospect that the MAPS will be used to supply gas to Adelaide from coal seam methane projects in Queensland.

The SEAGas pipeline runs for approximately 687 km from the Iona gas plant in Victoria to the Pelican Point power station on the northern edge of Adelaide.

With the two pipelines supplying the Adelaide region, retailers could potentially acquire gas for retail sale from either Victorian suppliers or from Moomba. To do this, retailers would need to negotiate with either (or both) of the pipeline operators to secure an arrangement for delivery of gas to the distribution system. Under the light handed regulatory approach now taken to these pipelines, retailers are entitled to access on reasonable commercial terms.

Beyond the Adelaide region, the choice of shipper is limited, with only the SEAGas pipeline able to supply the South East corner of the State, notably Mt Gambier. Similarly, gas can only be delivered to the Riverland and the northern towns of South Australia by way of the MAPS.

The laterals supplying regional areas are not subject to a specific access regime and therefore retailers need to negotiate access with the pipeline owners individually. The cost of these negotiations is high and most participants cannot justify it given the small market. Even the largest participants experience difficulty in negotiating access to the necessary pipelines at a reasonable cost to support a retail operation in regional South Australia.

For the most part, the participants who are not currently retailing gas see the cost of negotiating access as likely to be prohibitive given the relatively low value represented by South Australian gas customers, even in Adelaide. For this reason, competition in gas retailing is limited to competition between retailers who have a relationship, usually through common ownership, with a gas-fired power station. A number of participants referred to their gas supply arrangements as being 'piggy backed' on the arrangements that support their (or their owner's) power station.

Beyond Adelaide, there is very limited competition for gas customers. A few of the larger retailers have a small number of customers in South Australian regional areas. These are usually not customers that have been targeted by them, instead they are often acquired under broader national programs (for example some participants have national arrangements with real estate agents or may acquire customers when a business customer relocates staff).

²² Epic Energy, "Moomba to Adelaide Pipeline System (MAPS), South Australia", <http://www.epicenergy.com.au/index.php?id=32>

Participants typically find it difficult to supply these customers, especially when they are in an area not serviced by the MAPS. Where retailers acquire customers in these regions 'unintentionally', for example through an existing corporate contract or through the 'moving home' channel, they will typically seek to transfer that customer, or at least their gas business, to another retailer.

Some of the participants considered that the experience accessing gas in regional South Australian areas was similar to a recent experience in Victoria where the gas distribution network was extended to five regional towns by connecting to an uncovered gas pipeline. Retailers were reluctant to negotiate access given the cost to negotiate for a relatively small market and the risk associated with a potentially less secure supply of gas.

5.3 Short Term Trading Market

The Short Term Trading Market (STTM) is a market-based wholesale gas balancing mechanism that is currently being established for the Sydney and Adelaide hubs by AEMO. The objective of the STTM is to facilitate the short term trading of gas between pipelines, participants and production centres.

The market itself will run once a day, on the day ahead, for each hub. It will use bids, offers and forecasts submitted by participants to determine schedules for deliveries from the pipelines which ship gas from producers to transmission users and the hubs.

The market will set a daily market price at each hub and settle each hub based on the schedules and deviations from schedules.

The existing retail gas market in South Australia will continue to operate in conjunction with the STTM.

Some participants are waiting to see whether participating in the gas market will be more attractive to them after the introduction of the STTM later in 2010. Currently they do not have a view as to whether the STTM will increase or decrease risk in the South Australian gas market, although some noted that it may cause the variability of price to increase, thus making the market more risky.

Other participants noted that the STTM will not address the cost of securing access to gas haulage capacity, which these participants saw as the main barrier to increased competition in the retail gas market.

6 Other issues

Participants raised a number of other issues for discussion. These issues were largely regarded as a 'nuisance' experienced by all retailers in the market rather than a barrier to competition *per se*. However, it was noted that these may delay entry by new retailers to the South Australian energy market.

The particular issues that are discussed in this section are the State's climate change policies (section 6.1) and compliance costs (section 6.2).

6.1 State's climate change policies

South Australian electricity retailers are required to participate in the solar feed-in tariff scheme and, subject to a threshold based on number of customers, the Residential Energy Efficiency Scheme (REES).

Participants generally supported the intent of the schemes. However, they cannot understand the Government's rationale for choosing two very expensive means of achieving the desired outcome.

Participants recognise the merit in helping customers to improve the energy efficiency of their homes, but regard REES as a difficult, unnecessarily complex and expensive way of achieving this objective.

A number of participants suggested that a greater improvement in energy efficiency would have been achieved at a lower cost if the Government had introduced a levy and used the proceeds to supply energy efficient appliances to public housing.

Others referred to the global nature of the greenhouse emissions problem and queried the rationale for not adopting a scheme consistent with the certificate-based Victorian Energy Efficiency Target. As energy efficiency activities are not core business to the smaller retailers, in particular, they prefer to be able to contract out the function as can be done under a certificate-based approach.

They also indicated that the complexity of the scheme is compounded by the extent to which compliance with the scheme is enforced.

However, retailers did not indicate that they were seeking to limit their customer numbers below the threshold level to avoid complying with that scheme.

Participants also queried the rationale for supporting domestic scale photovoltaic schemes as it is one of the most expensive technologies available for achieving greenhouse abatement. Some participants described tariff funded

feed-in schemes as mechanisms for allowing affluent customers to install expensive solar panels on their homes and require less affluent customers to help pay for them.

Participants were firmly of the view that if schemes such as REES and feed-in tariff schemes are to be implemented, it is significantly cheaper and more efficient for them to be applied consistently across jurisdictions. A number of examples were given of differences between the REES and corresponding schemes in Victoria and New South Wales which increase the compliance cost associated with the schemes, and thus the extent to which they cause energy prices to increase.

Participants were supportive of the Commission's allowance of pass through costs for these schemes, especially given the already tight retail margins.

6.2 Compliance costs

Participants generally consider the South Australian regulatory environment to be sound, predictable and creating an attractive place for investment. They find the regulator and Government agencies easy to deal with and consistent. In particular, they find the Commission willing to listen to their concerns and, for the most part, willing to accommodate genuine concerns when they arise, albeit within the limits of its role.

Against this background, there are a number of smaller issues that participants see as raising the cost of servicing South Australian customers unnecessarily. These are not issues that would deter participants from entering or remaining in the South Australian market, but they do contribute to higher electricity prices.

The first example is the Commission's service standard for retailers' call centre performance, that is, the requirement that 85 per cent of telephone calls be answered within 30 seconds.

For some, the existence of this service standard is in conflict with, or places limits on, their business model. Participants with this view either have, or are contemplating, a business model based on an online presence rather than a physical presence. These participants queried the need for a service standard based on telephone responsiveness, or even for a requirement that they be available to deal with customers by telephone at all (as long as customers are made fully aware of the fact that a retailer is primarily, or solely, available by internet before they switch to that retailer).

Some participants regarded the fact that the service standard level is set very high as limiting their ability to distinguish themselves by exceeding their competitors' performance.

For other participants, the 85 per cent requirement is indicative of a broader issue with state based regulatory regimes. There is a unanimous view that a nationally consistent approach to regulatory issues is preferable to jurisdictional diversity. None of the participants operate solely in South Australia; South Australia is one of a number of markets in which they would operate.

Participants pointed out that other jurisdictions monitor and report performance on call centre performance without a service standard requirement.

Some participants referred to an 80 per cent target that applies in other markets. Given that customers are not significantly different across markets, participants could see no reason why regulatory requirements should vary.

Consistent with this preference for national consistency, participants generally welcome the impending National Energy Consumer Framework (NECF). However, there are two broad concerns with this process.

Firstly, some participants are concerned that the intention of national consistency may not be realised if jurisdictions each carve out derogations from the NECF for individual issues.

Secondly, participants are concerned that in some areas NECF appears to be at risk of finding the lowest common denominator and adopting it as the nationally consistent approach. This in turn increases the risk that governments with 'heavier' existing requirements will seek derogations, to avoid reducing the level of protection for consumers in their jurisdiction. In these cases, participants see it as desirable that a pragmatic compromise is reached, with national consistency put ahead of individual jurisdictional preferences.

Another example of a compliance cost that may be increasing energy prices unnecessarily is the cost of providing credit support to the distributor under the co-ordination agreement between retailers and the distributor. This was raised by a number of participants.

Participants were aware of a review by the Commission of this matter and were confident that a reasonable solution will be reached that balanced the distributor's legitimate need for risk management with the retailers' need to manage costs.

7 What would need to change to increase the level of competition in South Australia?

While a number of participants regard the level of competitive activity in the South Australian retail energy markets to be below previous levels, none of them saw any structural reason why competitiveness could not be increased.

Most participants were able to offer several suggestions for increasing the level of competitiveness in South Australian retail energy markets. Those suggestions include:

- Diluting the concentration of ownership in the wholesale electricity market, which is discussed further in section 7.1
- Increasing generation capacity and the number of counterparties offering hedge contracts, which is discussed further in section 7.2
- Limiting the amount of wind energy generation, which is discussed further in section 7.3
- Increasing the capacity of the interconnector, which is discussed further in section 7.4
- Removing retail price regulation, which is discussed in section 7.5
- Increasing the regulated retail price cap, which is discussed in section 7.6
- Adopting the index based approach to retail price regulation, which is discussed in section 7.7
- Improving carbon price certainty, which is discussed in section 7.8.

The various suggestions set out below are not limited to things that the Commission would necessarily be able to do. Rather, the sections that follow summarise the views of participants in relation to the various suggestions that were made.

7.1 Dilute concentration of ownership in the wholesale electricity market

As discussed in section 4, a number of participants consider it prohibitively difficult to compete in the South Australian electricity market because wholesale spot prices are too volatile and hedging contracts are not available at reasonable prices resulting in average wholesale electricity prices that are too high relative to the regulated retail price cap.

A number of participants attribute these difficulties directly to the fact that the ownership of the South Australian electricity generation capacity has become

increasingly concentrated in recent years. In particular, these participants identify AGL's acquisition of Torrens Island as a cause of volatility, high prices, and financial market illiquidity.

The participants who held this view generally take the view that the Australian Competition and Consumer Commission made a mistake when it allowed AGL to acquire Torrens Island. They see this as an error that should ideally be reversed, although many of them hold the view that this is not possible under existing law.

This was not a suggestion that was supported unanimously.

One participant noted that wholesale spot prices in South Australia have not risen above the long run marginal cost of generating electricity in South Australia, at least not in a sustained manner. If they had (or if/when they do), that participant expressed the view that the market will respond and new capacity will be built, thus forcing spot prices down.

Some participants argued that this is an important part of how the NEM was designed to incentivise new investment. These participants cautioned that interfering with these signals could have unintended consequences.

Second, a number of participants (other than AGL) did not regard AGL's bidding behaviour as either inappropriate or as the cause of the increased volatility, high prices or financial market illiquidity. For the most part these were participants with experience in generation as well as retail.

A number of participants saw a number of causal factors, including the increased penetration of wind energy generation, extreme weather events in summers 2007/08 and 2008/09 and various technical failures that have taken place in the NEM.

These participants also generally took the view that the returns AGL is likely to be earning, while high on certain days of the year, are not likely to be especially high on average over a year, certainly not over a year with relatively few very hot summer days in Adelaide such as the 2009/10 summer. These participants took the view that the average returns AGL is likely to be earning from Torrens Island are reasonable given the risks associated with owning the generator.

Participants suggested that any new generation capacity is most likely to arise through retailers other than AGL seeking greater vertical integration, with an improved matching of their retail and wholesale portfolios. This will reduce the concentration of ownership of generation assets over time. However, a competitive retail energy market is required to provide the incentive for other retailers to invest in additional generation capacity.

7.2 Increase generation capacity and counter parties

A related, but distinct suggestion that was made by a number of participants was that the government should endeavour to increase the (non-renewable) generation capacity installed in South Australia. No specific proposal was made, and participants were not suggesting that the new generation should be government owned. Generally speaking, though, participants felt that competitiveness in electricity retail markets would be enhanced if retailers had more choice in buying contracts to hedge their position.

However, it was noted that the signals for new generation in South Australia are suppressed with increased wind energy generation.

Similarly, a number of participants stressed the importance of financial participants in creating liquidity and depth in the financial markets. While no specific proposals were made, participants suggested that any steps the Commission could take to increase the number of merchant banks etc with an interest in the South Australian energy market would potentially alleviate the current lack of liquidity.

However, it was noted that financial participants have previously been burnt by the riskiness of the South Australian energy market and so may take some time to re-enter.

7.3 Limit the amount of wind energy generation

A suggestion that was implied, rather than explicitly made, was to limit the amount of wind energy generation in South Australia. Participants noted that the South Australian Government has encouraged wind energy generation in South Australia without considering the impact on the existing generators.

The impact of wind energy generation in South Australia on the existing generators, on the signals for new generation and on consumers needs to be carefully balanced with any incentives for additional wind energy generation. These impacts are not necessarily fully evident in electricity market modelling which is generally based on the 'average' circumstances rather than the outcomes when extreme events occur, as evidenced in South Australia over the last few years.

7.4 Increase interconnection capacity

A number of participants considered that increasing the extent to which South Australia is interconnected to the rest of the NEM might alleviate the recent

wholesale spot price volatility and high average wholesale electricity price levels.

Participants were only able to discuss this issue generally, given the absence of a detailed proposal and therefore an understanding of the cost involved in increasing interconnection capacity. However, a number of participants saw two classes of benefits from increased interconnection capacity, one stemming from each direction of flow.

As a means of exporting electricity, participants saw a potential that a larger interconnector would reduce the impact of very low bids from wind farms on South Australian spot prices. Essentially, this would enable the low priced wind generated electricity to be 'diluted' more widely across the NEM increasing average South Australian spot prices during windy periods. This would increase the average return earned by South Australian thermal generators at 'off-peak' times, thus reducing the incentive for them to pursue risky strategies to earn very high rewards on very high demand days.

Some participants considered this to be appropriate given the national character of the Renewable Energy Target that has driven the investment in wind farms in South Australia to date.

Simultaneously, if it is bi-directional, an increase in interconnector capacity would enable interstate generators to supply more electricity to South Australia during peak times than they can currently supply. Importantly, the participants suggested that this could include generators in New South Wales, where demand tends to peak at different times than in South Australia.

As a general proposition, without the benefit of a costed proposal or a detailed regulatory test analysis, a number of participants saw a potential that increased interconnection between South Australia and the rest of the NEM would reduce the high average wholesale electricity price levels and the volatility of wholesale spot prices in South Australia and thus enhance the competitiveness of South Australia's retail electricity market.

Other participants did not regard this as something that would influence their strategy because they saw the risk inherent in inter regional hedging being too high.

7.5 Remove retail price regulation

The unanimous view of participants was that retail price regulation is unnecessary in a competitive market and that it is suppressing competition in the South Australian market. Participants would prefer that retail price regulation was phased out.

However, participants also acknowledge that the South Australian Government has a strongly held view in regard to retail price regulation and that it has no intention of removing it at this time.

Against this background, a number of participants explored the purpose of retail price regulation in South Australia. Given that the Government is committed to retaining retail price regulation, some participants suggested that it should be retained as a transitional step, with a focus on providing a 'safety net' level of protection against outbreaks of very high prices. In this way, its focus would differ from that of the economic regulation of natural monopoly businesses, where the objective is to prevent those businesses from taking advantage of their position to earn monopoly profits. In the retail market, participants take the view that competition can be relied on to deliver this protection.

Some participants argued that the retail prices could be deregulated in South Australia in a staged approach as occurred in Victoria. In Victoria the retail prices for small businesses were deregulated a year prior to deregulating the retail prices for residential customers.

The retail prices could be deregulated earlier for those groups of consumers for which energy is not an essential service. It was suggested that retail electricity prices for small businesses could be deregulated and retail gas prices for all customers could be deregulated. The government could then monitor these segments of the market before making a decision as to whether to deregulate retail electricity prices for residential customers.

If retail gas prices were deregulated, it would allow the price to be more differentiated by regions to reflect the full cost of supplying gas to customers in those areas.

7.6 Increase the regulated price cap

Participants were divided as to whether competition in the retail energy market would be increased if the regulated price cap was increased. The division in views was largely based on whether the retailers had generation capacity or not.

The retailers that had generation capacity and were less reliant on hedge contracts with third parties were of the view that, if retail prices increased sufficiently to provide adequate headroom, they would become more active in the South Australian retail electricity market. In the later interviews, some participants noted that there had been a recent softening in the South Australian wholesale electricity prices (due to a milder summer) and that they sensed that retailers were indeed becoming more active.

Conversely those retailers that did not have generation capacity and were reliant on hedge contracts with third parties were unsure whether increasing the retail price cap would actually improve the level of competition in the retail market. In the absence of a liquid contract market, these retailers considered the South Australian retail electricity price to be inherently too risky.

If the retail price cap were to increase to provide sufficient headroom, it would appear likely that competition will increase with those retailers that have generation capacity (AGL, Origin Energy, TRUenergy, Simply Energy and South Australian Electricity) but those retailers that do not have generation capacity are likely to remain relatively inactive.

7.7 Adopt an index-based approach to regulating retail prices

Participants were generally supportive of the Commission's proposal to take an index based approach to allow the standing contract price to vary based on the relative movement in electricity (market) contract prices (after a cost based approach is applied to determining the initial price).

A number of participants stressed the importance of making sure that the initial, cost based price is correct, though. Generally they held the view that if the starting price is too low, indexing will occur from too low a base, defeating the objective of the index-based approach.

7.8 Improve carbon policy certainty

One participant in particular indicated that the current uncertainty regarding the timing and level of future carbon policy makes it difficult to reach a view internally about the appropriate 'carbon clauses' to include in a financial contract. Further, the recent uncertainty about the form any such policy might take has made this even more difficult than it was six months or a year ago.

In bilateral negotiations this participant has found it almost impossible to come to agreement about terms of hedge contracts over more than a very short term. In this participant's view, the single most important step that can be taken to improve financial market liquidity is to provide certainty regarding future carbon policy. Generators may then be prepared to offer hedge contracts for a term that is commensurate with the term of retail contracts.

A List of interview participants

Date	Company name	Representative	Title
13/5/10	TRUenergy	David McAloon	General Manager, Retail
		Graeme Hamilton	Head of Regulation and Government Affairs
14/5/10	Country Energy	John Adams	Executive General Manager, Retail
14/5/10	Aurora Energy	Paul Bloomfield	General Manager, Retail
17/5/10	Dodo Power and Gas	Andrew Mair	Customer Operations Manager, Energy
17/5/10	Australian Power and Gas	James Myatt	Chief Executive Officer
18/5/10	South Australia Electricity	Simon Draper	Managing Director
		Liam Foden	General Manager Revenue
	Infratil Energy	Darryl Flukes	General Manager
20/5/10	Momentum Energy	Stuart Rainsford	Portfolio Manager
		Joe Kremzer	Regulatory Manager
20/5/10	Origin Energy	Bev Hughson	Regulatory & Relationships Manager
21/5/10	Simply Energy	Domenic Capomolla	Chief Executive Officer
		Alex Fleming	Legal and Regulatory Manager
24/5/10	AGL	Paul Simshauser	Chief Economist and Group Head, Corporate Affairs
		Beth Griggs	Head of Regulated Pricing
		Alex Cruickshank	Head of Energy Regulation
26/5/10	International Power	Stephen Orr	Commercial Director
		Greg Billman	Trading Manager
28/5/10	Red Energy	Iain Graham	Chief Executive Officer
		Martin Exelby	General Manager, Corporate Development

B ESCOSA retail competitiveness review – interview outline

Retailer: _____

Participants: _____

Date: _____

1. How has your strategy for participating in the South Australian energy market changed [since you entered the market/since you obtained your licence/since FRC started]?

Prompts:

- a. Electricity/gas/dual fuel
- b. Residential/small business customers
- c. Consider number of customers, volume of energy sales, margin

2. If the level of participation has changed, why?

Prompts:

- a. Wholesale price volatility
- b. Liquidity in contract market
- c. Level of 'headroom'
- d. Ability to secure wholesale product
- e. Acquisition cost
- f. Cost to serve
- g. Financing cost
- h. Climate change policies – REES, feed-in etc
- i. Policy uncertainty – CPRS, RET etc
- j. Relative participation of other retailers
- k. Internal factors such as billing systems, call centres etc

3. If the level of participation has changed, how?

Prompts:

- a. Range of products – GreenPower, customers with solar panels, dual fuel*
- b. Customers targeted - regional differences, affluent suburbs, size of houses, appliance use, household composition*
- c. Promotional activity – television, radio, print media, internet, direct mail, sponsorship, door knocking, telemarketing, bill inserts, outdoor advertising (bus shelters, billboards etc), shop front*
- d. Service offering – direct debit, billing frequency, early payment discount, exit fees etc*
- e. Cash/ non cash incentives*
- f. Pricing relative to standing offer*
- g. Incentives to retain customers?*
- h. Prepared to extend contracts?*
- i. Accept walk-in customers?*

4. If the level of participation has not changed, why? What have been the barriers to increasing participation?

Prompts:

- a. Wholesale price volatility*
- b. Liquidity in contract market*
- c. Level of 'headroom'*
- d. Ability to secure wholesale product*
- e. Acquisition cost*
- f. Cost to serve*
- g. Financing cost*
- h. Climate change policies – REES, feed-in etc*
- i. Policy uncertainty – CPRS, RET etc*
- j. Relative participation of other retailers*
- k. Internal factors such as billing systems, call centres etc*

5. If the level of participation has not changed, what do you do?

Prompts:

- a. Range of products – GreenPower, customers with solar panels, dual fuel*
- b. Customers targeted - regional differences, affluent suburbs, size of houses, appliance use, household composition*
- c. Promotional activity – television, radio, print media, internet, direct mail, sponsorship, door knocking, telemarketing, bill inserts, outdoor advertising (bus shelters, billboards etc), shop front*
- d. Service offering – direct debit, billing frequency, early payment discount, exit fees etc*
- e. Cash/ non cash incentives*
- f. Pricing relative to standing offer*
- g. Incentives to retain customers?*
- h. Prepared to extend contracts?*
- i. Accept walk-in customers?*

6. What is your strategy for participating in the South Australian energy market over the next 2 – 5 years?

Prompts:

- a. Retail price regulation*
- b. Impact of NECF*
- c. Policy certainty – CPRS, RET, REES, feed-in tariffs etc*
- d. Impact of STTM, bulletin board*

7. If the strategy is to do the same or less, why? What are the barriers to increasing participation?

Prompts:

- a. Wholesale price volatility*
- b. Liquidity in contract market*
- c. Level of 'headroom'*
- d. Ability to secure wholesale product*
- e. Acquisition cost*
- f. Cost to serve*

- g. Financing costs*
- b. Climate change policies – REES, feed-in etc*
- i. Policy uncertainty – CPRS, RET etc*
- j. Relative participation of other retailers*
- k. Internal factors such as billing systems, call centres etc*

8. How does your strategy for the South Australian energy market compare to that in other Australian states and territories?

9. If the strategy is different to other states and territories, why?

Prompts:

- a. Specific SA issues – retail price regulation, wholesale price volatility, liquidity in contract market, structure of gas market, structure of electricity market*
- b. Issues in other states and territories – REES vs VEET, smart meters, sale of NSW energy retail businesses, different treatment of feed-in tariffs*
- c. Relative policy certainty*
- d. Regulation and rules*
- e. Economies of scale*
- f. Cost to serve*
- g. Prudential requirements*
- h. Relative participation of other retailers*
- i. Relative acquisition costs*
- j. Barriers to entry*
- k. Level of vertical integration in market*
- l. Internal factors such as billing systems, call centres etc*

10. How could the barriers to the South Australian energy market be addressed? By who?

11. How do you measure your success in the South Australian energy market?