



# Energy Retailers Association of Australia

South Australian Energy Market Reform – one  
year on

**11 February 2014**

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# Executive summary

Deloitte analysis has identified that a typical South Australian residential customer's electricity bill increased by 2.3% between February 2012 and December 2013 after removing the effects of increases in network charges and green scheme costs.

At the one year anniversary of the South Australian Government's decision to reform its energy market and shift from retail price regulation (price cap setting) to price monitoring, the Energy Retailers Association of Australia (ERAA) engaged Deloitte to examine the effects of this change on residential customers' bills. Our analysis presented in this report demonstrates that while there were increases in South Australian residential electricity bills both prior to and following the move to price monitoring, the overwhelming drivers of rising bills were network and green scheme costs, with the majority of the increases in these drivers occurring prior to the reforms.

## The price setting process

Prior to energy reform in the South Australian market in February 2013, the Essential Services Commission of South Australia (ESCOSA) was responsible for determining the maximum price that could be charged to customers on the Standing Contract offered by the incumbent retailer, AGL.<sup>1</sup>

This Standing Contract price effectively set a price ceiling for the residential customer market, with market offers representing various levels of discounting from the Standing Contract.

## New arrangements from February 2013

Since February 2013, all South Australian retailers are required to have a 'Standing Offer'<sup>2</sup> however their prices are not determined by a regulator, with the exception of AGL in the short term.

As part of the shift to price monitoring, AGL agreed to a two year fixed price path (excluding changes in network, carbon or renewable energy efficiency costs) for those customers on its legacy Standing Contracts and for customers shifting onto its Standing Offer from February 2013 to December 2014.

From December 2014, there will be no South Australian retail electricity prices determined by a regulator, meaning that the prices will be determined by retailers managing their businesses within the competitive retail market.

## ESCOSA's analysis of customer bills

Analysis in this report follows the release of a report by ESCOSA which contained analysis of movements in customer bills both prior to and following the shift to price monitoring. ESCOSA calculated annualised bills for Standing Contracts/Offer based on the simple average of 12 South Australian retailers' offers. ESCOSA did not remove the effects of changes in underlying costs such as network, carbon and green scheme costs from its customer bill analysis.

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<sup>1</sup> Standing Contracts were a statutory arrangement under which any residential or small business customer that did not enter into a market-based contract with a licensed electricity retailer was able to purchase electricity from AGL under terms, conditions and prices regulated by ESCOSA.

<sup>2</sup> A retailer's Standing Offer must be made available on request to those customers for which it is the 'designated retailer' (i.e. the local area retailer or the financially responsible retailer, as defined in the National Electricity Retail Law).

ESCOSA found that over 1 July 2012 to 16 August 2013, average electricity bills for customers on market offers rose by 18.7% and average electricity bills for customers on standing offers rose by 2.2%.<sup>3</sup>

### Deloitte analysis of customer bills

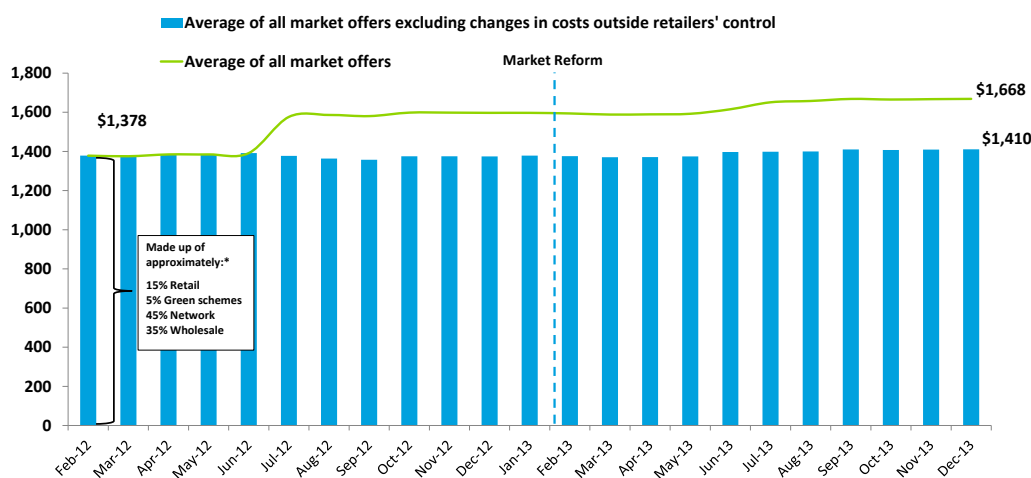
To facilitate our own analysis of price rises over the same period and the impact of the shift away from price regulation, we collected information from seven South Australian retailers on their three most competitive retail offers over 2012 and 2013. We have focused on the most competitive market offers that were available to all South Australian residential customers (i.e. those offers used in the most 'wins and retains'), rather than the average of 12 South Australian retailers' offers, because we consider these are likely to represent the most competitive offers in the market and hence will best demonstrate the effectiveness of competition in the market.

Using the information we collected, we estimated the annual electricity bill of a typical customer (5,000 kWh per annum, as per ESCOSA's assumptions) using the simple average of the seven participating retailers' top three market offers, as well as their Standing Offers. To isolate the impact of the policy change on the retail and wholesale component of the bill, we have also estimated an average annualised bill that would have resulted had there been no changes in the underlying costs to retailers that are passed through to customers, such as network, carbon and green scheme costs.

Deloitte analysis has identified that a typical South Australian residential customer's bill increased by 21% (in nominal terms) over the period one year before energy market reform in February 2012 until December 2013, but that after removing changes in underlying costs, the increase in retail bills was only 2.3%. These underlying costs – which include network charges and green schemes – are outside the control of retailers. When the impact of inflation is taken into account, our analysis suggests that the retail and wholesale component of typical residential customer's bill has remained fairly constant in real terms over the period.<sup>4</sup>

The significant difference between the increases in the total bill and the retail and wholesale component of the bill (21% versus 2.3%) highlights that retail price movements have been substantially impacted by changes in underlying network charges, carbon tax and green scheme costs over the past two years.

**Figure 1: Comparison of average of market offers and average of market offers excluding the impact of changes to carbon pricing, network price increases and changes to LRET**



<sup>3</sup> ESCOSA, *Energy Retail Prices in South Australia - Ministerial Pricing Report 2013*, August 2013

<sup>4</sup> Inflation was on average 1.9% over the period. ABS, *6401.0 Consumer Price Index*, Australia - All groups CPI; Adelaide, Average of quarterly percentage increases from March 2012 to December 2013.

\* Approximate cost breakdown in South Australia in 2011/12, taken from AEMC, *Electricity Price Trends Final Report 1 July 2012 to 30 June 2015*.

**Source:** Deloitte analysis of market offers and underlying costs provided by retailers, and AER tariff and pricing information.

### Deloitte analysis of key market indicators

Deloitte has also examined a number of key competition indicators in the South Australian electricity retail market to gather a picture of the overall health of the retail market from a competition perspective. Our analysis suggests that there is evidence that the retail electricity market in South Australia is reasonably competitive and that there have been minor changes in the key competition indicators since the move to price monitoring:

- Retailers have continued to offer discounts on their headline tariffs, slightly increasing the level of percentage discounts offered since February 2013
- The level of product differentiation and the overall number of retail offers available in South Australia are indicative of a reasonably competitive market - there are currently 12 retailers offering 54 electricity products in Adelaide
- Rates of customers changing retailer (churn) do not strongly indicate either a strengthening or weakening of competition in the South Australian market, given the changes in marketing strategy by retailers in 2013 explain a decline in churn rates over the second half of 2013
- The number of customers on the incumbent retailer's standing contract/offers has declined and the number of customers on market offers has increased
- The incumbent retailer's market share has been declining at an increasing rate, particularly since the move to price monitoring
- Liquidity has improved in the South Australian electricity futures contract market over 2013, however given the relative wholesale market price volatility in 2013, it is not possible to isolate the impact of the retail market reforms on the wholesale market.

# 1 Introduction

At the one year anniversary of the South Australian Government's decision to shift from retail price regulation (price cap setting) to price monitoring, the Energy Retailers Association of Australia (ERAA) engaged Deloitte to examine the effects of this change on residential customers' bills.

The shift away from price setting in South Australia has differed from the Victorian decision to deregulate retail prices in 2009, in that as part of the shift to price monitoring, AGL agreed to a two year fixed price path (excluding changes in network, carbon or renewable energy efficiency costs) for those customers on its legacy Standing Contracts and for customers shifting onto its Standing Offer from February 2013 to December 2014.

The agreed price path for the Standing Contract reflected a 9.1% discount on the December 2012 Standing Contract rates (passed onto existing Standing Contract customers), while the agreed price path for AGL's Standing Offer (available to customers who weren't Standing Contract customers previously) reflected a 4.5% discount on the December 2012 Standing Contract rates.<sup>5</sup> These rates were reflective of analysis that ESCOSA undertook to determine AGL's Standing Contract price path for 2013, prior to the Government's decision to reform the retail market.

From December 2014, there will be no South Australian retail electricity prices determined by a regulator, meaning that the prices will be determined by retailers managing their businesses within the competitive retail market.

In this report, Deloitte presents analysis of data provided by seven electricity retailers operating in South Australia.

## Scope of work

The ERAA engaged Deloitte to examine the residential retail market in South Australia following reforms in February 2013, in particular to:

- Review price movements in standing offers and market contracts
- Examine the discounts and incentives on offer in the market
- Provide examples of the types of energy contracts available
- Review switching and churn rates
- List the number of players in the market making offers to South Australia customers.

To undertake this work Deloitte requested information from seven major South Australian energy retailers: AGL; Alinta Energy; Energy Australia; Lumo; Momentum Energy; Origin; and Simply Energy.

The information we collected covered the period February 2012 to December 2013, and included:

- The top three market offer tariffs which have been used in the most 'wins and retains' over the period (i.e. the most competitive offers used to attract customers, where these offers are available to all South Australian retail customers)
- The average discount which was applied within each of the top three products (i.e. discounts to headline retail prices, including base discounts, pay on time discounts and direct debit discounts)
- Other additional value-add services or products (i.e. sporting tickets, magazine subscriptions) which were used to market the top three offers.

<sup>5</sup> ESCOSA, *Energy Retail Prices in South Australia - Ministerial Pricing Report 2013*, August 2013, p. 13.

## Report structure

The remainder of the report is structured as follows:

- The remainder of Chapter 1 presents background information on competition in the Australian energy sector, retail price monitoring in South Australia, and ESCOSA's review of energy prices
- Chapter 2 presents the changes in average electricity bills over time, and evaluates the level of competition in South Australia's retail electricity market by exploring key indicators of competition
- Chapter 3 presents the cost components of an electricity bill that are outside the control of the retailer and calculates these costs for an average retail bill
- Chapter 4 presents the changes in average electricity bills over time once the costs outside the control of the retailer are removed
- Chapter 5 outlines Deloitte's conclusions.

## 1.1 Competition reforms in the Australian energy sector

In 1991, the Industry Commission (now the Productivity Commission) carried out a public enquiry into energy generation and distribution in Australia. One of the recommendations stemming from this review was the unbundling of state owned energy generation and distribution businesses to open the energy market to competition.<sup>6</sup>

Competitive wholesale electricity markets were established in Victoria and NSW in 1994 and 1996 respectively, allowing the purchase price of electricity to fluctuate with market forces. In 2000 – two years after the National Electricity Market (NEM) commenced – Eastern and Southern Australian states implemented new retail electricity market arrangements.

The introduction of full retail contestability, meaning electricity customers were free to choose their retailer, occurred in Victoria, South Australia, NSW and the ACT throughout 2002-03. Queensland followed in 2007. Full retail contestability will occur in Tasmania for small customers on 1 July 2014.

The removal of retail price regulation and its replacement by price monitoring was the next step. Victoria moved first, ceasing the Essential Services Commission's price setting process in January 2009. As at early 2014, South Australia is the only other State to have shifted away from retail electricity price setting, noting that the current AGL Standing Contract and Standing Offer prices are fixed until December 2014, but that otherwise tariffs are free to reflect the competitive market.

## 1.2 Retail market reform in South Australia

Although full retail contestability was introduced in South Australia in 2003, it was not until 1 February 2013 that retail electricity price setting was ceased and monitoring commenced, with the exception of AGL's two year fixed Standing Contract and Standing Offer prices.

In South Australia, **Standing Contracts** were a statutory arrangement under which any residential or small business customer that did not enter into a market-based contract with a licensed electricity

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<sup>6</sup> Productivity Commission, *Energy Generation and Distribution Inquiry Report – Volume 1: Summary and Recommendations*, Report No. 11, 17 May 1991.



retailer was able to purchase electricity from AGL under terms, conditions and prices regulated by ESCOSA.<sup>7</sup>

Since February 2013, there are two types of offers available to South Australian residential electricity customers:

- **Standing Offers** – Standing offers refer to the sale and supply of energy under a standard retail contract. The prices under Standing Offers are not determined by a regulator, and are made available to small customers upon request by their ‘designated retailer’. Each South Australian retailer is a ‘designated retailer’ to customers who seek an offer at a premise where it was the last retailer to have sold electricity.<sup>8</sup>
- **Market Offers** – In jurisdictions with full retail competition, customers can negotiate the terms and conditions of their contract with their retailer of choice. These contracts are market offers. Market offers are deregulated, competitive pricing agreements. They are typically characterised as discounted standing offer prices and sometimes include non-price incentives to help encourage customers to switch retailer.

## 1.3 ESCOSA review into energy retail prices

In August 2013, at the request of the South Australian Minister for Mineral Resources and Energy, ESCOSA published a report on energy retail prices in South Australia. ESCOSA’s report was focussed on retail prices that were generally available to residential and small business customers during 2012/13.<sup>9</sup>

To examine the impact of changes in retail electricity prices, ESCOSA calculated annualised bills for Standing Contracts/Offer and for market offers as at 1 July 2013 and 20 September 2012, and 31 January, 30 June and 16 August 2013. The criteria used to calculate annual bills is based on an average annual household consumption of 5,000 KWh and the simple average of 12 South Australian retailers’ offers.

ESCOSA found that over the period July 2012 to August 2013, based on the simple average of electricity offers:

- average residential market offer bills rose by 18.7%
- standing offers/contracts rose by 2.2%

In a press release associated with the report, ESCOSA suggested that its ‘like-for-like comparisons’ demonstrated that estimated average market offer retail bills had increased significantly.<sup>10</sup> ESCOSA did, however, also acknowledge that caution should be used when comparing market and standing offer price increases because a portion of the increase to the market offers was due to network cost increases, where these increases had already been accounted for in standing offers/contracts prior to the period of analysis.

In this report, to examine this impact we have therefore removed the effects of underlying costs that are not related to retailers, to isolate retail market activity specifically. The costs are:

- **Network costs** – electricity distribution and transmission network costs are determined by the Australian Energy Regulator (AER) and are passed through to end customers via the retail price. Network costs increased in July 2012 and this increase was reflected in standing offers at that time. However, the increase was only reflected in market offers after August 2012, demonstrating that competitive market positioning may delay the flow of underlying

<sup>7</sup> ESCOSA, Electricity Standing Contract - Wholesale Cost Investigation, discussion paper, 20 June 2012.

<sup>8</sup> ESCOSA, *Energy Retail Prices in South Australia - Ministerial Pricing Report 2013*, August 2013, p. 11.

<sup>9</sup> *ibid*

<sup>10</sup> ESCOSA, Media release; Commission clarifies movements in energy retail prices since 1 July 2012.

cost increases across the board. Therefore, when comparing standing and market offers in the period post July 2012 (as ESCOSA has done), network cost increases must be removed to gain a true picture of market offer changes driven by the retail sector.

- Carbon tax – costs associated with the ‘carbon tax’ have changed over time with Government policy. As with network costs, carbon cost changes are reflected over time in market offers rather than immediately following a policy change. Therefore, to compare retail prices over time on a like for like basis, changes in carbon costs need to be removed.
- Large-scale Renewable Energy Target (LRET) and Small-scale Renewable Energy Scheme (SRES) – similar to carbon costs, these costs have changed over time and the impact of this should be removed from retail offers when making comparisons

## 2 Retail market observations

### 2.1 Price movements: February 2012 to December 2013

In order to understand movements in consumer energy prices and therefore bills, it is important to examine movements in the underlying costs that contribute to retail prices.

There are a range of costs that make up a customer's electricity bill, which include:

- Energy generation
- Transmission and distribution
- Retail operating costs
- Environmental policies and schemes.

This chapter examines the monthly annualised cost of electricity for a typical residential customer (using 5000 kWh or 5 MWh per annum) over February 2012 to December 2013. All figures in this report are expressed in nominal terms unless otherwise specified.

Our price estimates are based on the information Deloitte received from seven retailers on products which have been used in the most customer 'wins and retains' over the period. Deloitte considers that it is these offers which represent the most competitive offers in the market and hence will best demonstrate the effectiveness of competition in the market. We also note that offers examined were available to all South Australian customers during the period analysed.

The analysis of an electricity bill for a typical customer provides an overview of how electricity prices in South Australia have changed over time. It does not, however, provide a meaningful examination of how the retail component of bills has changed pre and post price market reform. This is because underlying costs that are not controlled by the retail sector are embedded in the retail bills. In Chapter 4, we remove the underlying cost changes to examine what effect the removal of retail price caps has had on the retail component of tariffs. Removing price caps removes an inherent risk of operating in the market.

Similar to ESCOSA, Deloitte has carried out its analysis on the basis of a typical South Australian residential customer's electricity bill. To enable easy comparison, we have adopted the same assumptions of a typical customer's usage profile as adopted by ESCOSA in its report on energy retail prices in South Australia. These assumptions are presented in table 1.

**Table 1: Assumed consumption profile**

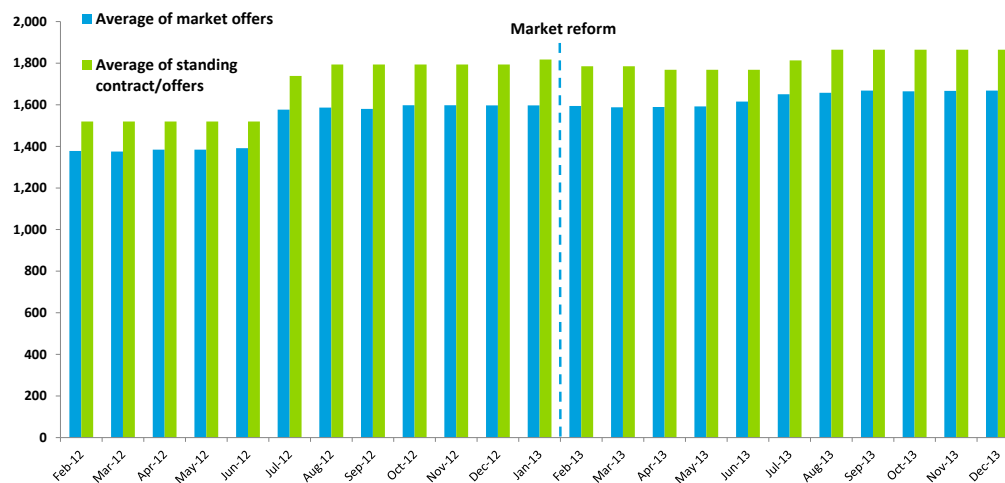
Electricity	Total	Summer	Autumn	Winter	Spring
Consumption profile	100%	27%	23%	28%	22%
Average residential consumption (kWh)	5,000	1,350	1,150	1,400	1,100

Source: ESCOSA Ministerial Pricing Report 2013

#### Price movements

We have calculated the annualised typical customer's electricity bill using:

1. The average tariff rates of all seven retailers' top three market offers
2. The average tariff rates of all seven retailers' standing contracts/offers.

**Figure 2: Average retail bill calculated under average market offer and standing offer tariff rates**

**Source:** Deloitte analysis of retail market and standing offers provided by retailers

Both Standing Contract/Offer and market offer bills increased over the period from February 2012 to December 2013. A typical customer's bill increased by:

- 23% calculated under average standing offer tariffs
- 21% calculated under average market offer tariffs.

While the increase in average bills over this period has been significant, there was not a significant difference in the percentage increase for customers on standing and market offers. However, whereas in February 2012 the difference between a typical annual bill calculated under standing contract tariffs and market offer tariffs was \$141, this increased to \$197 by December 2013. This highlights that a typical South Australian customer is likely to be better off on a market offer than a standing offer.

From figure 2, it is evident that there was a step change in electricity tariff rates in July 2012. This increase was largely driven by changes in network costs and the introduction of the carbon tax, discussed further in Chapter 4.

## 2.2 Trends in discounting and other incentives

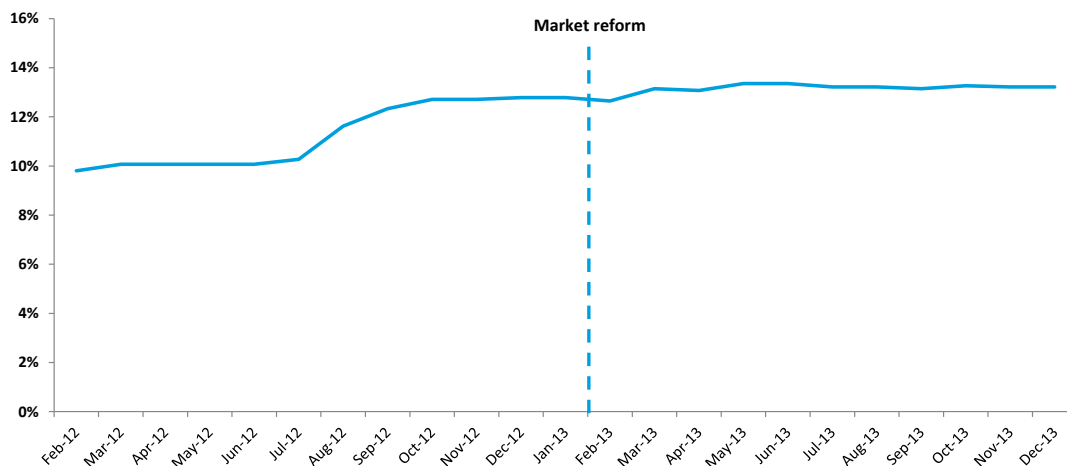
### Discounting

Electricity retailers typically structure their market offers as a headline tariff rate (sometimes equal to their standing offer rate) less a discount. In a competitive market, retailers may increase the size of their discounts to enhance the attractiveness of their offers and to attract and retain customers. Higher discount rates over time may therefore indicate greater market competition, although discounts need to be considered in the context of movements in the headline tariffs.

The participating retailers provided us with information on the average discount rate that was applied in each of their top three market offers. The makeup of discounts varied between retailers. Some retailers offered discounts on electricity usage, for paying on time, using direct debit, having online bills, or any combination thereof. Deloitte acknowledges that, as a result, it is not possible to determine the overall discount that an average customer would actually receive given that it would depend on their payment behaviour. However, for this analysis we have focused on offers and discounts that were *available* to most customers, which include those discounts which require paying on time or by direct debit/online.

We have calculated the average discount of the retailers' top three market offers in each month.<sup>11</sup> The results are presented in figure 3.

**Figure 3: Total average discount applied by retailers**



**Source:** Deloitte analysis of discount data provided by retailers

In the 12 months prior to energy market reform in South Australia, the average discount offered by retailers was 11.3%. This increased to 13.2% in the 11 months after reform. In July 2013, the average discount began to fall slightly from its high of 13.4% in May 2013. At December 2013, the average discount of applied on the market offers was 13.2%.

Discounts applied by four retailers increased post market reform. On the other hand, one retailer's average discount decreased while another's discount level remained constant. We note that Momentum Energy does not incorporate a discount into its market offers, competing instead via its headline rates. We have excluded Momentum Energy from the discounting analysis as its headline offers are captured in our total bill analysis.

Overall, these results indicate that retailers have continued to offer discounts on their headline tariffs, at a slightly higher rate since February 2013.

### Other incentives offered in market contracts

Competition encourages differentiation through the design and introduction of innovative products by retailers to gain a competitive advantage. Given electricity is a highly homogenous product, retailers are limited in the extent to which they can change their end products to differentiate themselves from competitors. Instead, retailers facing competition tend to focus on differentiating the way in which they provide electricity to their customers, such as their service levels or other value propositions. The benefit of differentiation is that customers have more opportunity to select offers that best suit their behaviour and needs.

From the tariffs Deloitte has examined on offer to South Australian residential customers over February 2012 to December 2013, we have found a reasonable level of product differentiation. Lumo, unlike other retailers which offer discounts on electricity usage rates, applies discounts to its daily charges as well as usage charges. An offer with lower standing charges may benefit low energy consumption households.

Other offers which demonstrate the offer differentiation in the South Australian market include:

<sup>11</sup> Rather than offering a discount of the standard offer, Momentum Energy offers different headline tariff rates. We are not able to accurately calculate the average discount that Momentum offers from its standard offer because the discount amount would change depending on a customer's usage pattern (for example the amount of electricity used and the season in which it is used). We have therefore not included Momentum in this part of our analysis.

- 10,000 bonus Velocity Points upon sign up, followed by 6 Velocity Point per \$1 spent on bills under a 24 month contract
- A 12% headline discount to RAA club members with no fixed term contract
- A \$50 rebate on a customer's first bill under a 12 month contract.

According to the Australian Energy Regulator's (AER) Energy Made Easy website, there are 54 residential electricity offers in Adelaide as of January 2014.

We consider that the retail product differentiation and the overall number of retail offers available in South Australia suggest it is a reasonably competitive market.

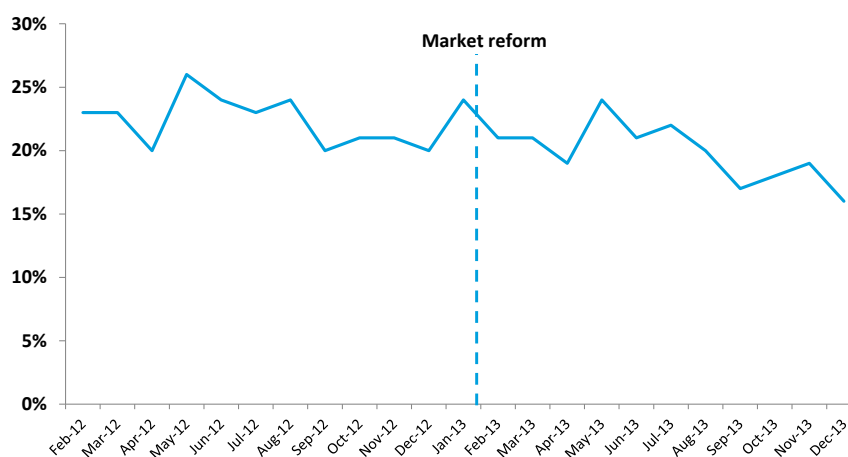
## 2.3 Customer churn and legacy standing offers

### Customer churn

Customer churn, also known as switching, is the most commonly cited indicator of competition in the retail energy market. Churn data is recorded by AEMO as 'customer transfers' and is defined as the number or proportion of customers in the market who switch between retailers each month.

The churn rates in figure 4 are the one month annualised transfer rates published by AEMO. They are calculated by projecting the previous month's transfer volumes over the full year and calculating the percentage churn that would occur if the transfer rate was maintained over the year. This is then rounded to the nearest percentage.

**Figure 4: Annualised churn rate in South Australia**



**Source:** Deloitte analysis of AEMO Retail Transfer Statistical Data

Figure 4 shows fairly constant churn rates immediately before and following the move to retail price monitoring in South Australia. The average of the monthly annualised churn rates in the seven months preceding February 2013 was 22%, compared to 21% in the seven months post February 2013. However, from September to December 2013, churn began to decrease, averaging 18% over this period.

The fall in churn rates since September 2013 may be in part driven by some retailers' opting to cease the use of door-to-door sales as a marketing channel. In South Australia, AGL ceased door-to-door sales in October 2012, Energy Australia in March 2013 and Origin in September 2013.<sup>12</sup>

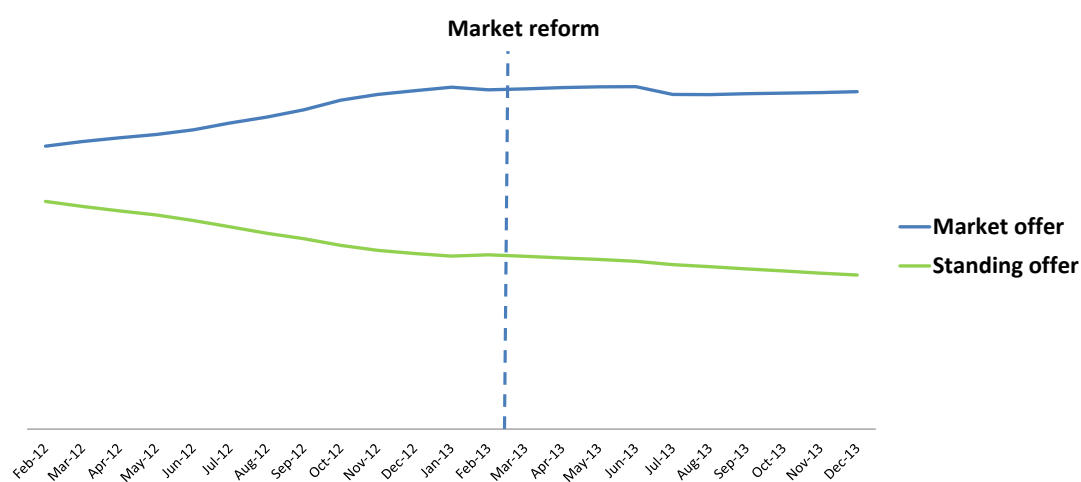
<sup>12</sup> <http://www.originenergy.com.au/3743/Door-to-door-sales;>  
<http://www.energyaustralia.com.au/servlet/Satellite?c=Page&childpagename=EnergyAustralia%2FPage%2F3ColumnLayout&cid=1362105318295&pagename=GST%2FDispatcher>

After Victoria, South Australia had the highest rate of churn in the National Electricity Market (NEM) in December 2013, a position it held for most of the period we have analysed.<sup>13</sup> In Deloitte's view, given the changes in marketing strategy by retailers in 2013, changes in customer churn do not strongly indicate either a strengthening or weakening of competition in the South Australian market, and does not raise concerns with the competitiveness of the market following market reform.

### Legacy standing offers

We have examined the number of customers that are on the incumbent retailer, AGL's, Standing Contract/Offer and Market Offers over the period February 2012 to December 2013. Due to the confidential nature of this data we have not included a scale.

**Figure 5: Incumbent retailer's customer numbers - Standing and Market Offers**



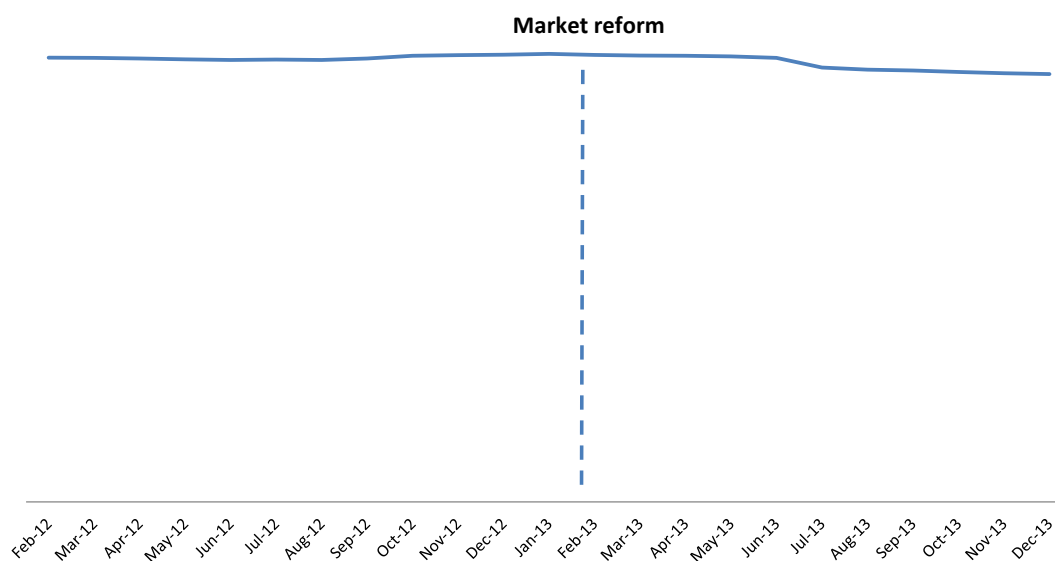
**Source:** Deloitte analysis of SA market offers provided by retailers Dec 13/Jan 14

Figure 5 highlights that the number of customers on the incumbent's standing contract/offers has declined and the number of customers on its market offers has increased. This may indicate that customers are increasingly participating in the electricity retail market and responding to competitive market offers.

## 2.4 Market concentration: incumbent and new entrant analysis

The number of retailers actively seeking customers and market share over time can be an indication of competitiveness, as economic theory suggests more competitive markets are those that are characterised by many players holding small numbers of customers. It follows that reviewing the market share of the largest, incumbent energy retailer in South Australia can provide an indication of the level of competition over time.

<sup>13</sup> AEMO data

**Figure 6: Total residential customers in South Australia served by the incumbent retailer**

**Source:** Deloitte analysis of SA market offers provided by retailers Dec 13/Jan 14

The data Deloitte has received illustrates that the number of residential customers in South Australia held by the largest retailer has declined slightly between the period February 2012 to December 2013, particularly falling in the 11 months following the shift to price monitoring. This is a sign that the market is becoming more competitive, as other smaller retailers are able to attract customers away from the incumbent.

### Retailers in the market

The number of energy retailers offering residential tariffs in South Australia can provide an indication of changes in market competitiveness over time. Deloitte's research suggests that there are currently 12 retailers offering 54 offers to South Australian residential customers as at January 2014. By comparison, in Sydney there are 52 offers available from 12 retailers, while in Canberra there are 11 offers available from two retailers.<sup>14</sup>

While it is difficult to ascertain the number of retailers that were actively seeking customers in South Australia in the period just prior to energy price reform, Deloitte notes that in 2008 the AEMC reported that there were ten retailers selling electricity to small customers at that time.<sup>15</sup>

While there has only been a small absolute increase in the number of active retailers in South Australia since 2008 (with some of those retailers present in 2008 no longer in the market, now replaced by new players), the number of retailers and variety of offers available in South Australia suggests that the market is attractive to retailers and that there has been no significant decline in competition since the reforms in February 2012.

## 2.5 Wholesale market liquidity

The South Australian electricity futures market has historically been less liquid than other states, due to the composition of the market.

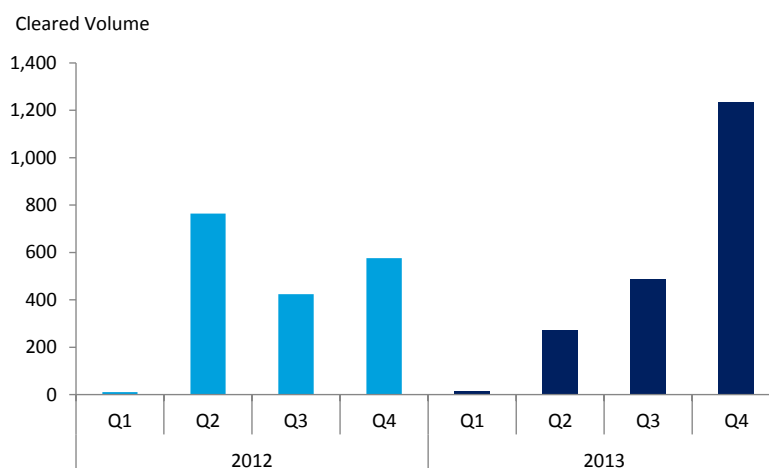
<sup>14</sup> AER, Energy Made Easy website, [www.aer.gov.au](http://www.aer.gov.au).

<sup>15</sup> AEMC, Review of the Effectiveness of Competition in Electricity and Gas Retail Markets in South Australia - First Final Report, 19 September 2008, table i p. x



We have reviewed data on the South Australian electricity futures contract market over the periods before and after the South Australian Government's decision to cease price setting. We reviewed the volume of futures contracts traded in the 2012 calendar year, settling in the same year, and then compared this to similar trades for the 2013 calendar year. The results of this analysis are presented in figure 7 below.

**Figure 7: South Australian electricity futures contracts – cleared volume**



**Source:** Deloitte analysis of D-cypha data on futures contracts accessed in January 2013

The cleared volume of spot year trades increased by 13% in 2013, as compared to 2012. Deloitte notes that South Australian wholesale pool prices were more volatile in 2013 for reasons unrelated to retail market reform. We would expect that retailers would respond to this volatility by seeking to reduce their risk by increasing contracting in the futures market.

In conclusion, it is not possible to isolate the impact that the retail market reforms in South Australia have had on the wholesale contract market in 2013. However, we expect the long term impact of this reform will be increased liquidity in the futures market, as more retailers increase their market share and seek to manage their risks through the futures market.

## 2.6 Summary of findings

Deloitte's analysis has found that:

- Retailers have continued to offer discounts on their headline tariffs, slightly increasing the level of percentage discounts offered since February 2013
- The level of product differentiation and the overall number of retail offers available in South Australia are indicative of a reasonably competitive market - there are currently 12 retailers offering 54 electricity products in Adelaide
- Rates of customers changing retailer (churn) do not strongly indicate either a strengthening or weakening of competition in the South Australian market, given the changes in marketing strategy by retailers in 2013 explain a decline in churn rates over the second half of 2013
- The number of customers on the incumbent retailer's standing contract/offers has declined and the number of customers on market offers has increased
- The incumbent retailer's market share has been declining at an increasing rate, particularly since the move to price monitoring

- Liquidity has improved in the South Australian electricity futures contract market over 2013, however given the relative wholesale market price volatility in 2013, it is not possible to isolate the impact of the retail market reforms on the wholesale market.

Deloitte's analysis has suggested that there is evidence that the retail market in South Australia is reasonably competitive and that there have been no material changes in the key competition indicators since price market reform.

## 3 Underlying market trends

To analyse the impact of the shift to retail price monitoring, Deloitte identified and subsequently removed the impact of changes in underlying costs unrelated to the retail sector. As we have outlined in Chapter 1, ESCOSA did not undertake this analysis in its report on South Australian energy bills.

In this Chapter we present our calculations on the effects of changes in network prices and green scheme costs on customer bills. The resultant impact on a typical customer's annual bill is then presented.

### 3.1 Network prices

Network costs are the costs associated with transporting electricity from the electricity generator to the end customer via network infrastructure. There are two types of network businesses—transmission (high voltage, long distance lines) and distribution (lower voltage lines in towns and cities). Network businesses are natural monopolies, meaning that because it would not be economic to duplicate network infrastructure, customers are unable to choose between suppliers. The prices that these businesses can charge to customers are regulated, determined by the AER. Retailers typically pass network businesses' costs through to their customers once a determination is made to adjust network prices.

Over recent years, network price have increased significantly. In South Australia, distribution prices have increased by the amounts outlined in table 2.<sup>16</sup>

**Table 2: Real percentage increase in distribution prices**

Year	2010-11	2011-12	2012-13	2013-14	2014-15
Percentage increase	12.14	18.10	4.97	7.00	0.89

**Source:** AER determination; ETSA Utilities application for revocation and substitution of 2010–11 to 2014–15 distribution determination

Over the 2010-11 to 2014-15 regulatory period, the AER estimated that the retail price impact of the increasing South Australian distribution network charges would be an increase to residential bills of 6% in 2010–11 and 3.4% in the remaining four years.<sup>17</sup>

Similarly, South Australian transmission prices have increased by the amounts outlined in table 3.<sup>18</sup>

**Table 3: Real percentage increase in transmission prices**

Year	2008-09	2009-10	2010-11	2012-13	2013-14
Percentage increase	23.11	4.89	4.89	4.89	4.89

**Source:** AER statement on updates for ElectraNet transmission determination 2008-13

To remove the effect of network price increases from retail bills, we have used the transmission and distribution network prices as set by the AER from February 2012 to June 2012 as the base year (approximately \$645 p.a. for a typical customer). We have then removed the network cost increases

<sup>16</sup> AER, Determination ETSA Utilities' application for revocation and substitution of 2010–11 to 2014–15; distribution determination, Feed-in tariff payments, February 2012.

<sup>17</sup> AER, Final decision; South Australia distribution determination 2010–11 to 2014–15, May 2010.

<sup>18</sup> AER, Statement on updates for ElectraNet transmission determination 2008-13, February 2009.

that were applied in July 2012 (approximately \$165 p.a.) and July 2013 (a further \$37 p.a.) using the network cost information published by the AER.<sup>19</sup>

## 3.2 Green scheme costs

### Carbon costs

On 8 November 2011, the Australian parliament passed laws to put a price on carbon emissions.<sup>20</sup> The price of carbon was paid by producers, such as electricity generators (although some generators were provided with exemption via free carbon permits). Generators could pass the cost of carbon through to retailers, which is then passed onto consumers in the form of higher electricity prices. From 1 July 2012 the government placed a price on carbon of \$23 per tonne. In July 2013 the price on carbon increased to \$24.15 per tonne.

The impact on consumers of the carbon price is difficult to quantify.<sup>21</sup> Notwithstanding this difficulty, we have estimated the impact of the carbon cost to consumers using an assumption that all carbon costs are passed through.

To estimate the costs of carbon, we examined AEMO's published National Electricity Market wide Carbon Dioxide Equivalent Intensity Index, which calculates the tonnes of carbon emissions equivalent per MWh of electricity produced by region. Over the relevant period in South Australia, the average carbon intensity was around 0.5 tonnes per MWh.<sup>22</sup>

Using a carbon tax of \$23 per tonne and the average residential electricity consumption of 5,000 KWh resulted in a cost of approximately \$58 per year, and \$60 per year using a carbon tax of \$24.15 per tonne.

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<sup>19</sup> AER, SA Power Networks; network tariffs,

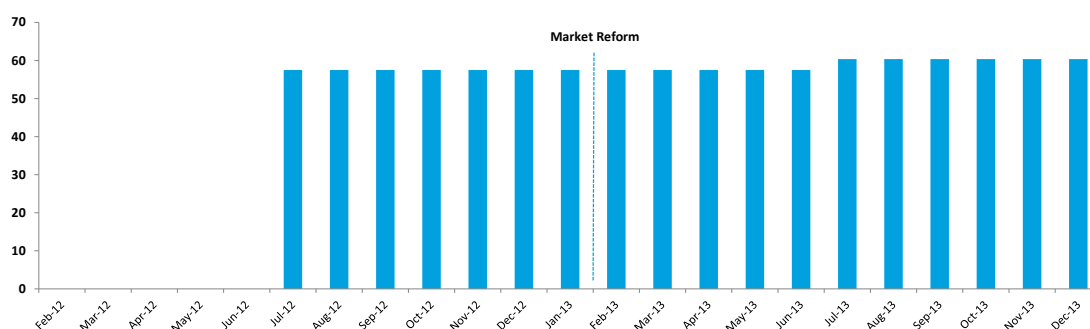
<<http://www.aer.gov.au/sites/default/files/SA%20Power%20Network%20Annual%20pricing%20proposal%202013-14%20-%20Appendix%20A%202013-14%20NUoS%20Tariffs%20and%20notes.pdf>>, <  
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<[http://www.aer.gov.au/sites/default/files/ETSA%20Utilities%20-%20Appendix%20A%20NUOS%20tariffs%20and%20explanatory%20notes\\_1.pdf](http://www.aer.gov.au/sites/default/files/ETSA%20Utilities%20-%20Appendix%20A%20NUOS%20tariffs%20and%20explanatory%20notes_1.pdf)>

<sup>20</sup> Australian Government, An overview of the Clean Energy Legislative Package, Clean Energy Future  
<<http://www.cleanenergyfuture.gov.au>>

<sup>21</sup> The amount of carbon cost directly passed through to end customers cannot be exactly determined due to the competitive nature of the retail market.

<sup>22</sup> In our view this is a conservative assumption based on the AEMO estimate of carbon intensity for South Australia, which reflects the high proportion of wind generation in South Australia. Retailers will incur a higher carbon cost to serve the retail market in South Australia due to the interconnected nature of the NEM with imports from Victoria and other states.

**Figure 8: Impact of carbon costs on a typical retail customer's bill**

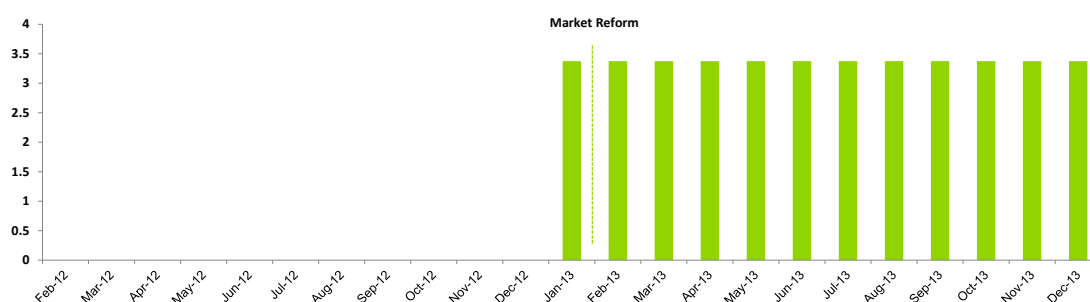
**Source:** Carbon price published by the Clean Energy Regulator and Deloitte analysis

### Large-scale Renewable Energy Target (LRET)

The LRET scheme requires certain entities, such as electricity retailers, to surrender Large-scale Generation Certificates to the Clean Energy Regulator (CER). Renewable energy generators are entitled to create large-scale generation certificates based on the additional renewable electricity that they produce from a baseline level. Retailers may then purchase these certificates in order to meet their obligations of surrendering them to the CER.

From January to December 2013 the renewable power percentage target was 10.65% (14,200 GWh). Previously, from January 2012 to December 2012 the renewable power percentage target was 9.15%. The change in the Renewable Power Percentage meant that the costs of providing electricity changed over the 2012-13 period.

For this report, Deloitte has estimated the price of a Large-scale Generation Certificate to be \$45 MWh on average. Using this estimate, the effect of the change to the Renewable Power Percentage between 2012 and 2013 is an increase to an average customer's retail bill of around \$3.40 per year.

**Figure 9: Impact of LRET scheme requirements on a typical retail customer's bill**

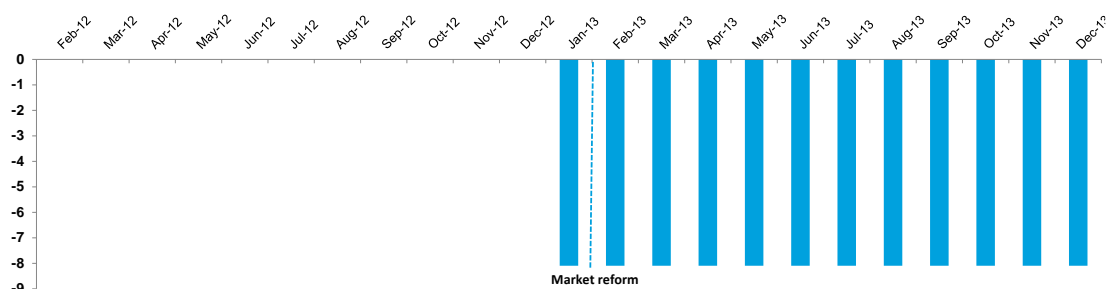
**Source:** Deloitte confidential database

### Small-scale Renewable Energy Scheme (SRES)

SRES is similar to LRET, however, rather than certificates being generated from large scale renewable energy production, certificates are generated from small-scale installations, such as solar water heaters, heat pumps, solar panel systems, small-scale wind systems, or small-scale hydro systems.

From January to December 2013 the renewable power percentage target was 19.7%. Previously, from January to December 2012 the target was 23.96%.

For this report, Deloitte has estimated the price of an SRES certificate to be \$38 MWh on average. We have therefore calculated that the effect of the change to Renewable Power Percentage between 2012 and 2013 as a decrease in an average consumer's retail bill of around \$8.10 per year.

**Figure 10: Impact of SRES scheme requirements on a typical retail customer's bill**

**Source:** Green Energy Markets LGC and STC market prices and Deloitte analysis

### Residential Energy Efficiency Scheme (REES)

The Residential Energy Efficiency Scheme (REES) requires licensed energy retailers with more than 5,000 customers to provide energy efficiency activities to their customers in accordance with targets determined by the South Australian Government. Similar to carbon tax, LRET and SRES costs, the costs of complying with REES are part of the underlying cost stack present in the final retail price.

In its 2010 decision on the standing contract prices for 2011, ESCOSA incorporated an allowance of \$12.55 per customer in the annual price adjustment. This was based on analysis carried out by SKM-MMA consultants, which considered retail and energy efficiency market conditions and the mix of activities included in REES.

Although Deloitte has not attempted to estimate the monthly REES compliance cost over the period of our analysis as this is a complex task, we note that in 2011 REES costs were estimated by ESCOSA to make up approximately 1% of a median usage bill. While there were no changes in 2012, REES targets for retailers were increased on 1 July 2013, from 255,000 to 335,000 tonnes of CO<sub>2</sub>, an increase of approximately 30%.

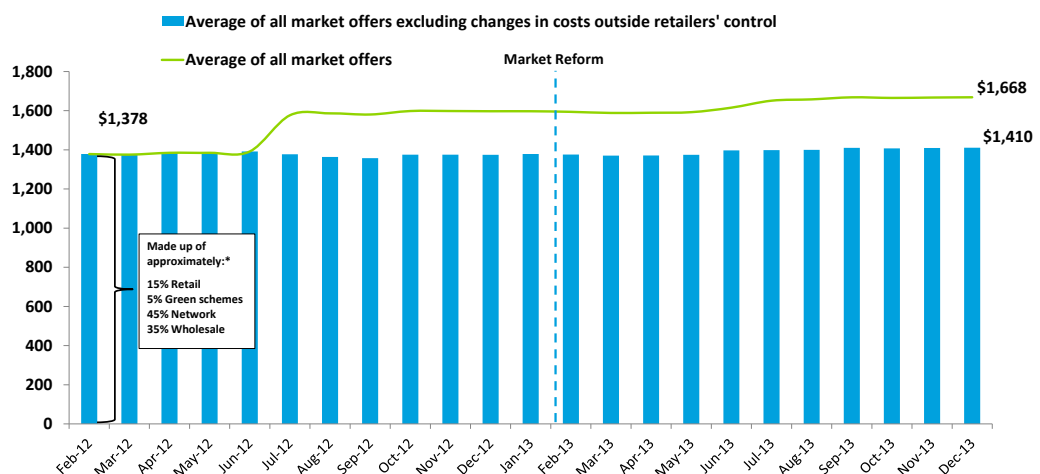
While this was a significant change, increases in the REES costs are unlikely to be material in the context of other underlying cost changes given the small proportion of total bills they represent, and as such we have not attempted to estimate the impact on final bills.

## 4 Adjusted retail price movements

In a competitive market, given electricity is a highly homogenous product, price increases will be constrained as firms compete on price. As such, the degree to which end prices rise independently of underlying costs is a good indicator of the competitiveness of the market.

In this Chapter, we have removed the effects of changes in network and green scheme costs from the calculations of typical residential bills to examine the effects of retail price monitoring on the retail component of bills. The results of removing the effects of network cost increases and changes to green scheme costs as described in Chapter 3 from a typical customer's retail energy bill are presented in figure 11.

**Figure 11: Comparison of average of market offers and average of market offers excluding the impact of changes to carbon pricing, network price increases and changes to LRET**



\* Approximate cost breakdown in South Australia in 2011/12, taken from AEMC, *Electricity Price Trends Final Report 1 July 2012 to 30 June 2015*.

**Source:** Deloitte analysis of market offers and underlying costs provided by retailers, and AER tariff and pricing information

Deloitte's analysis has identified that a typical customer's bill calculated under the simple average of market offers increased by 21% over the period February 2012 to December 2013.<sup>23</sup> However, once changes in the abovementioned underlying costs are removed, the increase in retail bills was 2.3%, highlighting that end retail price increases have been substantially driven by changes in underlying network, carbon and green scheme costs.

Deloitte's results suggest a different story than that outlined by ESCOSA, which concluded residential market offer bills rose by 18.7% and standing offers/contracts rose by 2.2% over the July 2012 to August 2013 period. Table 4 presents ESCOSA's conclusions on typical bills calculated based on the average market offer bills, as well as Deloitte's conclusions on typical bills calculated on the basis of

<sup>23</sup> We do not expect the increase to be exactly the same as that reported by ESCOSA because we have examined different retail businesses and different market offers (ours being the most competitive offers in the market, not the average of all offers). We have examined three market offers of seven retailers, rather than the retailers authorised in the NERL as per ESCOSA's paper.

the most competitive market offers, with data provided by seven retailers, at five different points during the period of analysis.



**Table 4: Comparison to ESCOSA’s analysis**

	Jul-12	Sep-12	Jan-13	Jun-13	Aug-13
Average of ESCOSA market offers	\$1,598	\$1,841	\$1,833	\$1,837	\$1,897
Deloitte average of most competitive market offers	\$1,576	\$1,580	\$1,597	\$1,615	\$1,658

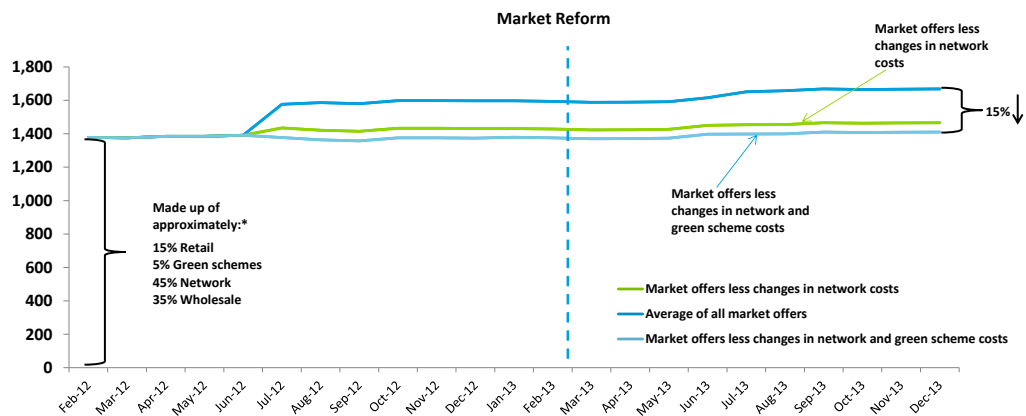
**Source:** ESCOSA Ministerial Pricing Report 2013

Deloitte’s results suggest that a typical residential bill calculated from the average of market offers remained fairly constant from February 2012 to January 2013 (prior to price market reform). However, from February 2013 to December 2013, the typical bill rose by around 2.5% in nominal terms.

Notwithstanding that there was a price increase after market reform, we consider that the relative size of the increase suggests that the electricity retail market in South Australia is reasonably competitive.

The effect of each cost component on a typical customer’s bill calculations is demonstrated in Figure 12.

**Figure 12: Annual bills calculated under average market offer tariffs**



\* Approximate cost breakdown in South Australia in 2011/12, taken from AEMC, *Electricity Price Trends Final Report 1 July 2012 to 30 June 2015*.

**Source:** Deloitte analysis of SA market offers provided by retailers Dec 13/Jan 14

This figure demonstrates that, while green scheme costs have had an impact on residential bills, this impact is significantly smaller than that generated by network cost changes.

## 5 Conclusion

Our analysis of retail market conditions in South Australia has focussed on an estimate of changes in a typical South Australian residential customer's average bill from February 2012 to December 2013.

Deloitte has particularly sought to identify whether there has been a change in the competitiveness of the retail market since South Australia moved to retail price monitoring in February 2013. To isolate and understand the impact of market reform on the retail cost component of bills, we have estimated the underlying cost impacts of network and green schemes, before removing increases over the period of our analysis.

Deloitte has demonstrated that the overwhelming contributor to the large increases in South Australian residential electricity bills over February 2012 to December 2013 was changes in underlying network and green scheme costs, which have occurred independently of (and are unaffected by) the reform of retail prices. Excluding network, carbon tax and green scheme costs, retail price increases in South Australia since February 2013 have barely kept pace with inflation.

As well as bill impacts we have examined other indicators of retail market competition, including:

- wholesale market liquidity
- product differentiation, including non-price incentives and offers
- customer churn
- the proportion of customers on standing offers as compared to market offers
- market share of the largest, incumbent retailer
- market concentration.

The results of our analysis of these indicators over the period suggest that there has been no decline in the level of competition among South Australian retailers, and indeed, some indicators suggest competition is improving.

Retail price regulation (price caps), which remains in place in all states of the National Electricity Market except South Australia and Victoria, represents one of the last remaining features of the old, legacy energy framework that has been reformed with significant successes since the early 1990s. Through imposing a government-determined ceiling on the extent to which variable wholesale costs can be passed through to customers, price caps represent an additional risk to retail operations. Rather than the market clearing equilibrium price, the price is determined by a regulator which encounters information asymmetry and difficulties in identifying efficient retailer costs due to the complex, dynamic nature of the competitive wholesale electricity market. Accordingly, price caps often result in distortions and inefficiency, reducing overall economic efficiency. Price caps ultimately affect retailers' decisions on whether to enter or exit a market (creating a barrier to entry), as well as generators' decisions on whether to invest in new supply assets in a jurisdiction.

In conclusion, the decision to shift away from market-distorting price regulation appears to have resulted in no detrimental outcomes for the South Australian electricity retail sector to date.

## 6 Limitation of our work

This report is prepared solely for the use of The Energy Retailers Association of Australia (ERAA). This report is not intended to and should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity. The report has been prepared for the purpose set out in our engagement letter. You should not refer to or use our name or the advice for any other purpose.

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