

2015-2016 RETAILER FEED-IN TARIFF

*Final Price Determination
Statement of Reasons*

December 2014



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The Essential Services Commission of South Australia is an independent economic regulator of the water, electricity, gas, ports, and rail industries in South Australia. The Commission's primary objective is the *protection of the long-term interests of South Australian consumers with respect to the price, quality and reliability of essential services*. For more information, please visit www.escosa.sa.gov.au.

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GLOSSARY OF TERMS

AAC	ACIL Allen Consulting – an independent expert appointed by the Commission to advise on the fair and reasonable value of PV electricity to electricity retailers.
ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
CO₂-e	Carbon dioxide equivalent
Commission	Essential Services Commission of South Australia
D-FiT	The mandatory FiT of either 44 cents per kWh or 16 cents per kWh for each kWh of electricity fed into the distribution network payable by SA Power Networks to PV customers (based on the date of connection or connection approval of their PV units) under Division 3AB of the Electricity Act.
Electricity Act	Electricity Act 1996
ESC Act	Essential Services Commission Act 2002
FiT	Feed-in Tariff
HHI	Herfindahl-Hirschman Index
IPART	Independent Pricing and Regulatory Tribunal of New South Wales
kWh	kilo Watt hour, which is the equivalent of 1,000 Wh, an amount of energy approximately equivalent to running a single bar radiator for one hour.
MWh	Mega Watt hour — the equivalent of 1,000 kWh.
NECF	National Energy Customer Framework
NEM	National Electricity Market
NERL	National Energy Retail Law
NSLP	Net System Load Profile

PV customer	A residential or small business customer using less than 160 MWh of electricity per annum at a connection point which has a PV unit and complies with the requirements of Division 3AB of the Electricity Act.
PV unit	A PV customer's photo-voltaic electricity generating unit which has a maximum nameplate capacity of 10 kVA (single phase) or 30 kVA (at three phases), meets the requirements of Australian Standard AS 4777, is connected to the distribution network in a manner allowing the export of electricity and has appropriate metering arrangements in place.
R-FiT	The minimum FiT amount as determined by the Commission payable for each kWh of electricity fed into the distribution network by electricity retailers to PV customers under Division 3AB of the Electricity Act.
RRN	Regional Reference Node, which is the reference point (or designated reference node) for setting a region's spot price. The current RRN for South Australia is the Torrens Island Power Station 66 kV busbar.
QCA	Queensland Competition Authority
Watt	A derived SI (International System of units) unit of power, defined as one joule per second.
Wh	One watt hour - a unit of energy.

EXECUTIVE SUMMARY

- ▲ *Under the Electricity Act 1996, the Commission may make price determinations from time to time setting the value of the retailer feed-in tariff (R-FiT). The R-FiT is paid by electricity retailers to customers with roof-top solar panels, for the solar energy that is fed into the electricity network.*
- ▲ *The Commission has determined that the value of the minimum retailer-paid feed-in tariff (R-FiT) will be 5.3 cents per kWh from 1 January 2015 to 31 December 2016 – reflecting the reduction in the forecast wholesale cost of electricity.*
- ▲ *The value of the R-FiT can, and does, vary over time, to take account of factors such as changes in the wholesale cost of electricity. The R-FiT is not fixed in the long-term.*
- ▲ *The Commission will review the forecast value of the R-FiT to apply from 1 January 2016 and, if the forecast value lies within $\pm 10\%$ of 5.3 cents per kWh (i.e. 4.77 to 5.83 cents per kWh) the Commission will leave that value unchanged.*
- ▲ *Since the change to adopting the lower bound R-FiT value on 1 January 2014, although early signs are encouraging, there has not been sufficient evidence to conclude that effective competition for customers with solar panels exists, such that immediate deregulation of the R-FiT would be in the long-term interests of consumers.*
- ▲ *In general terms, the Commission is favourably disposed to deregulation of the R-FiT, unless it observes a marked deterioration in the effectiveness of the overall energy retail market or becomes aware of evidence conclusively demonstrating that the PV market is not competitive in South Australia. In relation to the latter, any evidence that PV customers are being discriminated against would be of concern.*
- ▲ *Therefore, the Commission will continue to regulate the R-FiT for a further two-year period (with the R-FiT value adjusted, if necessary, on 1 January 2016) and will review the market prior to the expiration of this Determination, to see if regulation remains justified.*

The Essential Services Commission of South Australia (**Commission**) is an independent economic regulator of the water, electricity, gas, ports and rail industries in South Australia. The Commission's primary objective is the **protection of the long-term interests of South Australian consumers with respect to the price, quality and reliability of essential services.**

One of the Commission's functions is to determine whether or not to make retail feed-in tariff (R-FiT) price determinations from time to time. If an R-FiT determination is made, it sets the *minimum* price which electricity retailers must, under the provisions of the *Electricity Act 1996 (Electricity Act)*, pay to residential and small business electricity customers (**PV customers**) whose solar photovoltaic generators (**PV units**) feed electricity into the distribution network. This price is referred to as the retailer feed-in tariff or **R-FiT**.

The R-FiT recognises that there is an economic value to electricity retailers for any electricity fed into the distribution network by PV customers, albeit that it may vary over time. The R-FiT provides a means by which PV customers may realise that economic value through the receipt of payments (or credits) from retailers. The value of the R-FiT can and does change over time.

In December 2013, the Commission made a price determination that set the *minimum* R-FiT of 7.6 cents per kWh from 1 January 2014, which reduced to 6.0 cents per kWh from the date of removal of the carbon price (1 July 2014). The amount of 6.0 cents per kWh will apply until 31 December 2014.

The Commission has determined that the minimum R-FiT will be 5.3 cents per kWh from 1 January 2015 reflecting the reduction in the forecast wholesale cost of electricity to retailers.

This Price Determination

This report sets out the Commission's reasons for its decision to make a further two-year R-FiT price determination under the Electricity Act and the ESC Act, to commence from 1 January 2015. That determination:

- ▲ sets a *minimum* R-FiT value of 5.3 cents per kWh (the prescribed value) from 1 January 2015, which is the lower bound of the reasonable range of estimated values to an electricity retailer of electricity fed back to the distribution network (the 90th percentile and 10th percentile values, which form the reasonable range, are 5.3 and 7.4 cents per kWh respectively).
- ▲ provides a mechanism that would allow the *minimum* R-FiT value to be adjusted if the forecast value is greater than $\pm 10\%$ of the prescribed value, from 1 January 2016 in order to ensure the value remains reflective of wholesale electricity cost movements.
- ▲ implements a formal price-monitoring regime in respect of electricity retailers' R-FiT offerings, to facilitate a further review of the regulatory approach for the *minimum* R-FiT prior to 2017.

Why make a Determination?

The primary reason for making a minimum R-FiT price determination for another two years is that the Commission believes that it is necessary to monitor the development of competition for solar PV customers for an additional period of time before being confident that deregulation of the R-FiT is in the long-term interests of consumers.

Information about the extent to which retailers are actively competing for PV customers remains inconclusive in the following areas:

- ▲ **Switching rates** – Data provided by SA Power Networks (analysed by the Australian Energy Market Operator (AEMO)) and electricity retailers shows that the switching rates for PV and non-PV customers are highly correlated but that the switching rate for PV customers is substantially lower.

Although the low switching rate for PV customers raises questions about the level of competition for those customers, it could also be due to PV customers, in general, having lower bills than non-PV customers and, therefore, having less to gain from switching between market offers.

- ▲ **Incidence of Market Offers to PV customers** – PV customers continue to have limited access to the full range of products offered by electricity retailers in South Australia. At the end of October 2014, only seven of the 16 retailers were making their best-priced Market Offers available to PV customers. Origin Energy and Simply Energy were the only major electricity retailers to do so.
- ▲ **Incidence of minimum payments** – by 31 October 2014, five of the 13 retailers actively marketing to PV customers were offering the minimum R-FiT.

This reflects a slight improvement since 30 June 2014, when eight of the retailers were offering the minimum. In June 2014, the minimum R-FiT was 7.6 cents and, as a consequence of the removal of the carbon tax, the minimum R-FiT fell to 6.0 cents effective 1 July 2014. At 31 October 2014, only three retailers had opted to lower their R-FiT to the new minimum. One interpretation of this outcome may be that retailers are finding that the Commission's move to setting the R-FiT at the lower end of the reasonable range is providing them with the headroom to offer amounts above the regulated minimum.

- ▲ **Incidence and effectiveness of higher R-FiT payments** – by 31 October 2014, eight of the 13 retailers selling to PV customers were making R-FiT payments above the minimum value. The R-FiT payments offered by those retailers were either 8.0 cents, 7.6 cents or 9.8 cents per kWh—the last two of which were the minimum payments previously set by the Commission.

Analysis demonstrates that the higher R-FiTs offered by five retailers were subsidised by higher electricity consumption (or usage) tariffs. This may suggest that regulation of the R-FiT is not having a material impact on PV customers, to the extent that retailers may use more expensive Market Offers to subsidise the higher R-FiT amounts and that higher R-FiT payments do not necessarily provide the best overall deal for PV customers.

- ▲ **Evidence arising from other jurisdictions** – two of the three largest electricity retailers in New South Wales (AGL and EnergyAustralia) are currently offering voluntary R-FiT payments towards the higher end of the Independent Pricing and Regulatory Tribunal's recommended non-binding benchmark range of the value of fed-in PV electricity 4.9 cents to 9.3 cents per kWh. The other retailer, Origin Energy, is making a voluntary R-FiT payment at the lower end of this benchmark range.

However, in Victoria the same three electricity retailers were offering the minimum R-FiT despite the flexibility to offer higher amounts.

Although the signs of competition for solar PV customers are encouraging, a further period of setting a minimum R-FiT and monitoring is considered appropriate, to be confident that no consumer detriment would occur from deregulation. Therefore, the Commission considers that it is still appropriate to continue regulating the *minimum* R-FiT for a further two years. Doing so will provide the market with further stability and time to absorb the changes arising from the deregulation of the energy markets, the transition to the National Electricity Retail Law (**NERL**), the National Energy Customer Framework (**NECF**) and the Commission's changes in setting the R-FiT. It will also provide the Commission with the opportunity to collect further evidence about the potential costs and benefits to PV customers, and energy customers more generally, of deregulating the R-FiT.

The Commission accepts, in principle, that regulators setting prices is a second-best outcome **if** markets are sufficiently competitive. It has, therefore, set the *minimum* R-FiT at a lower bound estimate of a reasonable range to provide sufficient headroom for electricity retailers to compete above that floor and thus leave it to the market to determine the efficient price.

Why has the proposed R-FiT value changed from the current level?

The proposed *minimum* R-FiT value of 5.3 cents per kWh to apply from 1 January 2015 is less than the current R-FiT of 6.0 cents per kWh, as electricity wholesale cost forecasts have declined. This is based primarily on the expectation that electricity demand will continue to fall in 2015. Accordingly, there is a corresponding decline in the estimated value to retailers of PV customers' exports in 2015.

This will have minimal impact on most PV customers. Those with an average consumption profile of 5,000 kWh per year and with medium-sized PV systems may see a reduction in their R-FiT revenue of around \$8 per year. The greatest benefit to PV customers continues to be reduced energy imports from the distribution network and the associated avoided retail electricity costs.

Despite this small impact on PV customers, the Commission received some submissions and correspondence from PV customers expressing the view that, by reducing the R-FiT, a large benefit is being taken away from them. Other submissions expressed regret in installing solar PV and many customers cannot understand the disparity between the R-FiT and the retail cost of electricity.

On the other hand, submissions from retailers express a desire for deregulation of the R-FiT market, which they suggest will deliver customers a broad range of product offerings and, thus, better outcomes for consumers. The current R-FiT determination encourages competition for PV customers by establishing a minimum R-FiT based on that the lower-bound of a reasonable range of R-FiT value.

It is in the long-term interests of all energy customers to set an R-FiT that does not exceed the wholesale electricity costs avoided by retailers. If the Commission were to set a *minimum* R-FiT value higher than the true value of the electricity fed-in to the grid, then retailers would

either seek to recover any revenue shortfall by increasing their electricity consumption tariffs for all customers or avoid retailing to PV customers, or adopt both strategies. Either way, customers would be worse off.

What happens after 2015?

This Price Determination establishes a mechanism that allows the R-FiT value to be adjusted on 1 January 2016 (based on a specified methodology, as explained in this decision) to ensure the value continues to remain reflective of wholesale electricity cost movements. An adjustment to the R-FiT would only be made if the calculated fair value differs from the 2015 value by more than 10 per cent. The adjusted minimum value would be determined by the Commission by November 2015, to allow retailers sufficient time to implement any changes to their R-FiT values by 1 January 2016.

The Price Determination provides for a formal price-monitoring regime to be implemented. This regime will allow the Commission to monitor the extent to which competitive forces are driving retailers to provide R-FiTs in excess of the regulated *minimum* value.

Should the encouraging signs of competition continue to be confirmed through the findings from this price-monitoring regime, the Commission is prepared to reconsider the ongoing regulation of the R-FiT beyond 2016. As competition ought to be a dynamic process, the Commission would expect to see R-FiT offers that reflect value to retailers while, at the same time, PV customers should not be limited to a smaller range of (higher) consumption tariffs for imported energy compared to customers without PV systems.

In general terms, the Commission is favourably disposed to deregulation of the R-FiT, unless it observes a marked deterioration in the effectiveness of the overall energy retail market or becomes aware of evidence conclusively demonstrating that the PV market is not competitive in South Australia. In relation to the latter, any evidence that PV customers are being discriminated against would be of concern.

1. INTRODUCTION

The Essential Services Commission of South Australia (**Commission**) is an independent economic regulator of the water, electricity, gas, ports and rail industries in South Australia. The Commission's primary objective is the ***protection of the long-term interests of South Australian consumers with respect to the price, quality and reliability of essential services***.

One of the Commission's functions is to determine whether or not to make a determination of the R-FiT and, if so, to make determinations from time to time. If an R-FiT determination is to be made, the Commission will set the *minimum* price which retailers must, under the provisions of the *Electricity Act 1996* (**Electricity Act**) pay to residential and small business electricity customers (**PV customers**) whose solar photovoltaic generators (**PV units**) feed electricity into the distribution network (the retailer feed-in tariff or **R-FiT**).

The R-FiT recognises that there is an economic value, for any electricity which is fed into the distribution network, and provides a means by which PV customers may realise that economic value through the receipt of payments from electricity retailers. The value of the R-FiT can vary from time to time, to take account of factors such as changes in the wholesale cost of electricity. The R-FiT is not a long-term final price.

Any price determination of the *minimum* R-FiT is made under the terms of the Commission's establishing Act, the *Essential Services Commission Act 2002* (**ESC Act**), as authorised by and consistent with the terms of the Electricity Act.

The Commission received 12 submissions to its Draft Determination including four from retailers and three from industry associations. The matters raised in submissions have been considered by the Commission in arriving at its final determination.

1.1 The feed-in scheme: D-FiT and R-FiT

The South Australian feed-in tariff (FiT) arrangements are established under the Electricity Act which provides for two separate and independent schemes: the R-FiT and the distributor-paid feed-in tariff (D-FiT).¹

Under the overall FiT scheme, South Australian PV customers who consume less than 160 MWh of electricity annually at a single connection point and have qualifying PV units installed at their premises may receive FiT payments in respect of each kWh of electricity exported into the distribution network.

Customers may choose to install PV units for various reasons; environmental concerns, the potential for financial returns or to reduce the amount they pay to electricity retailers for the electricity consumption at their premises. The generation output of a PV unit is a substitute for the need to purchase electricity from a retailer. If the PV units generate more electricity than a customer requires, the excess electricity is exported to the distribution network.

¹ Refer generally, Electricity Act 1996, Division 3AB; a copy of that Act may be accessed from the South Australian Legislation website at <http://www.legislation.sa.gov.au/LZ/C/A/ELECTRICITY%20ACT%201996.aspx>.

To be a *qualifying* PV unit for FiT purposes, a PV customer's PV unit must:

- ▲ have a maximum nameplate capacity of 10 kVA (single phase) or 30 kVA (three phase) and meet any other requirements of Australian Standard AS 4777
- ▲ be connected to SA Power Networks' distribution network in a manner allowing the export of electricity, and
- ▲ have appropriate metering arrangements in place.

Of note, the FiT scheme does not apply in any distribution network serving fewer than 10,000 customers, which effectively limits its scope to customers who are directly connected to the network operated by SA Power Networks.

The Australian Energy Market Operator (**AEMO**) noted in its August 2014 *South Australian Electricity Report*² that:

Since 2009, South Australian rooftop PV generation has grown strongly, and penetration per household is higher than any other NEM region. This is primarily due to government incentives in the form of rebates and feed-in tariffs, the Small-scale Technology Certificate (STC) multiplier, falling system costs, and increasing electricity prices. These factors helped reduce payback periods, making rooftop PV generation an attractive option for households, particularly from 2010 to 2012.

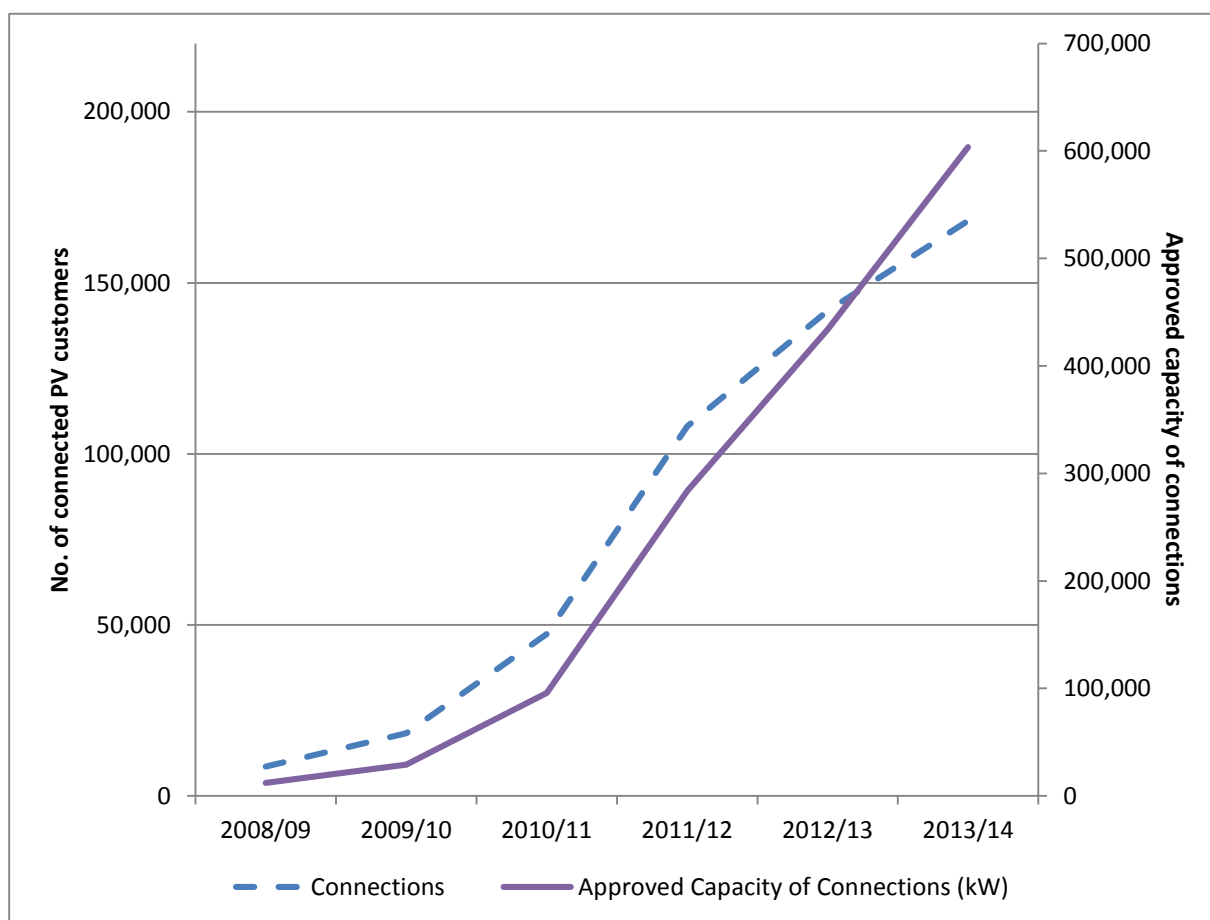
Rooftop PV installation growth was stable in 2013, partially due to a stabilising of government incentives. AEMO expects growth to continue over the next 10 years in response to increasing electricity prices and decreasing costs of solar panels, which will allow payback periods to remain the same despite a reduction in the feed-in tariff.

Data provided by SA Power Networks indicates that there were 170,926 PV connections in South Australia by 30 September 2014 — which equates to approximately one in five South Australian (residential and small business) customers — with the aggregate approved PV unit capacity of around 621 MW and an effective capacity of approximately 503 MW.

As set out in Figure 1-1 below, and consistent with AEMO's observations, SA Power Networks' data confirms that there has been a consistent upwards trend in both the number and installed capacity of PV units in this State since the commencement of the FiT scheme.

² Australian Energy Market Operator, *2014 South Australian Electricity Report, August 2014*, p.17, available at <http://www.aemo.com.au/Electricity/Planning/South-Australian-Advisory-Functions/South-Australian-Electricity-Report>

Figure 1-1: SA Power Networks' PV installation data 2008/09 to 2013/14



Source: SA Power Networks

The average capacity of PV units has increased at a greater rate than the increase in the total number of PV units installed. Between June 2009 and June 2014, the average size of all PV units installed in South Australia has increased from 1.4 kW to 3.6 kW. By 30 June 2014, there were 168,122 PV connections. Excluding those connections in excess of 30 kVA and without nameplate capacity data available, there were:

- ▲ 94,354 customers receiving a distributor-paid feed-in tariff of 44 cents per kWh (reflecting an average PV approved installation size of 2.6 kW)
- ▲ 62,712 customers receiving a distributor-paid feed-in tariff of 16 cents per kWh (reflecting an average PV approved installation size of 4.5 kW), and
- ▲ 5,212 customers not receiving a distributor-paid feed-in tariff (reflecting an average PV approved installation size of 5.5 kW)³.

³ For the first 6 months beginning 1 January 2014, there were only 371 new approved connections with an average approved size of 5.1 kW compared with 9,911 new connections in the corresponding 6 month period of 2013 with an average approved size of 5.8 kW (for the entire 2013 year).

Under the two FiT schemes, each kWh exported (not each kWh generated) entitles a PV customer to FiT payments, subject to various limitations and qualifications set out in the Electricity Act. The payments related to exported kWh of electricity are sometimes referred to as “credits” as they are, in the first instance, set off against any amounts payable for electricity consumed by the PV customer and, if in excess of those amounts, thereafter accrue to the credit of the PV customer.

1.1.1 The D-FiT

The D-FiT scheme is set out in section 36AE of the Electricity Act and commenced on 1 July 2008. The Commission has no regulatory role in relation to the D-FiT; however, to provide background and context, the key elements of the D-FiT arrangements are set out below.

Background to the D-FiT

The D-FiT scheme was originally identified in the South Australian State Strategic Plan as a Government policy intention to introduce a “feed-in law” to reward households that install PV generation units by paying them for the electricity fed back into the electricity grid as part of its broader strategy to tackle climate change.⁴

At the time of introducing the feed-in scheme in 2008, the South Australian Government stated that its proposed feed-in scheme aimed to fill the gaps left by declining Commonwealth Government support for residential PV generation units and allow the South Australian Government to pursue its objective of leadership in solar power.⁵

The proposed scheme was a means of promoting decentralised renewable energy generation by providing a specific bonus for owners of small-scale grid-connected PV generation units. PV customers⁶ would receive 44 cents per kWh, (or roughly double the price at that time of the electricity standing contract), for all electricity returned to the grid after supplying the household’s own consumption needs at any point in time. The 44 cents per kWh scheme was closed to new PV customers on 1 October 2011 and was replaced with a 16 cent per kWh D-FiT, which was available to new PV customers up to 30 September 2013. Table 1-1 below summarises the D-FiT scheme.

⁴ “Objective 3: Attaining Sustainability” outlined a number of key initiatives to achieve that goal. The introduction of a feed-in scheme sits within the broader Target T3.5 which states: “Greenhouse gas emissions reduction (existing – modified): achieve the Kyoto target by limiting the State’s greenhouse gas emissions to 108% of 1990 levels during 2008-2012, as a first step towards reducing emissions by 60% (to 40% of 1990 levels) by 2050” and Target T3.12 which stated: “Support the development of renewable energy so that it comprises 20% of the State’s electricity production and consumption by 2014”. Refer <http://saplan.org.au/>.

⁵ Government of South Australia, *South Australia’s Feed-in Mechanism for Residential Small-Scale Solar Photovoltaic Installations*, Discussion Paper, February 2007.

⁶ While the feed-in scheme was originally proposed to apply only to residential customers, the scheme was extended to all “small customers” (that is, those customers consuming less than 160 MWh of electricity annually) during the Bill’s passage through the Parliament.

Table 1-1: D-FiT payment and term by PV unit class

PV UNIT INSTALLATION/ APPROVAL DATE	D-FIT CREDITS	DURATION OF D-FIT
Class 1 Before 1 October 2011	44 cents per kWh	Until 30 June 2028
Class 2 1 October 2011 to 30 September 2013	16 cents per kWh	Until 30 September 2016
Class 3 From 1 October 2013	0 cents per kWh	Ongoing

Qualification for the D-FiT

Eligibility for the D-FiT is subject to the following conditions:⁷

- ▲ D-FiT credits are, generally, limited to the first 45 kWh/day of electricity exported into the distribution network
- ▲ D-FiT credits are limited to one PV unit per PV customer, and
- ▲ PV units are excluded from the scheme if they are operated primarily for the purpose of generating a profit from receiving the D-FiT credit (with SA Power Networks being responsible for determination of this matter).

Closure of the D-FiT to new PV customers

Since 30 September 2013, new PV customers are no longer entitled to receive D-FiT payments – the D-FiT scheme is now closed to new entrants.

The decision to close the scheme was consistent with the original intention of the Government when the scheme was introduced. As noted in the report prepared for the South Australian Government in 2010 by Consulting Partners, *South Australian Feed-in Tariff Review – Final Report*:⁸

During the Second Reading Speech for the Bill the Government committed to undertaking a review of the solar feed-in scheme after 2.5 years or when a total of 10 megawatts (MW) of small grid connected solar electricity systems were installed in South Australia. Data from the Federal Department of Climate Change indicated that 10 MW of installed capacity was reached around May 2009.

⁷ The SA Government's solar feed-in scheme website (available at: <http://www.sa.gov.au/topics/water-energy-and-environment/energy/energy-supply-and-sources/renewable-energy-sources/solar-energy/solar-photovoltaic-systems/solar-feed-in-scheme>) has a comprehensive discussion of the various eligibility requirements and conditions.

⁸ Consulting Partners, *South Australian Feed-in Tariff Review – Final Report*, 2010, page 6.

In 2011, when introducing into Parliament the Government's proposed Bill to give effect to the closure of the D-FiT, the Minister for Energy noted that there was already approximately 50 MW of installed PV unit capacity in South Australia. The Minister went on to state that:⁹

To strike the right balance between the availability of the scheme and the overall cost to all electricity customers, the government proposed to close the scheme to new entrants when an installed capacity of 60 MW is reached. I advise honourable members that customer uptake of the feed-in scheme has been strong since the Premier's announcement.

In order to provide an adequate implementation period, the government proposes to close the scheme to new entrants from 1 October 2011.

D-FiT funding arrangements

While paid by SA Power Networks to PV customers, the costs of the D-FiT payments are borne by all South Australian electricity customers through their electricity network charges.

Based on SA Power Network's 2014/15 electricity network prices,¹⁰ the impact of the D-FiT on a typical average annual residential electricity customers bill is around \$118 (exclusive of GST), or approximately 6 per cent.¹¹

1.1.2 The R-FiT

The R-FiT scheme is set out in section 36AD of the Electricity Act and commenced in January 2012.

The R-FiT, which is currently set at 6.0 cents per kWh, must be paid by electricity retailers to PV customers at or above the *minimum* value (if any) set by the Commission from time to time.

The purpose of the R-FiT is to recognise that there is economic value for any electricity which is fed into the distribution network, albeit that value may vary over time. The Electricity Act requires retailers to recognise that economic value through payments to PV customers. The amount set by the Commission can vary from time to time to reflect prevailing wholesale market conditions.

⁹ House of Assembly Hansard, House of Assembly - Wednesday, 6 April 2011, Page 3238, Minister for Energy, the Hon. M. O'Brien M.P.; available at www.parliament.sa.gov.au.

¹⁰ SA Power Networks, *Network Tariff and Negotiated Services – Tariffs 1 July 2014*, June 2014; available at http://www.sapowernetworks.com.au/centric/industry/our_network/network_tariffs.jsp.

¹¹ Based on an estimated annual electricity bill of \$1,844 for a typical residential customer consuming 5,000 kWh per annum (excluding off-peak and green energy). Estimated bill figure is based on a simple average of available residential Standing Offers offered by all electricity retailers at 30 June 2013.

Background to the R-FiT

Prior to the commencement of the D-FiT scheme in 2008, only three of the eleven retailers operating in South Australia at the time (AGL, TRUenergy (now EnergyAustralia) and Origin Energy) were making voluntary FiT payments to customers. The combined market share of those retailers at that time was 87.4%; with AGL holding 63%, Origin Energy 16% and TRUenergy 8.4%.¹²

Following commencement of the D-FiT, retailers substantially reduced the amount of their voluntary FiT offerings, as shown in the following table.

Table 1-2: Electricity retailer voluntary FiT payments prior to and post D-FiT commencement

ELECTRICITY RETAILER	PRIOR TO D-FIT (2008)	POST D-FIT
AGL	One-for-one (based on retail consumption tariff)	July 2008 – October 2009: 0 cents per kWh From 1 November 2009: 8 cents per kWh
TRUenergy (now EnergyAustralia)	18 cents per kWh	July 2008 – August 2009: 18 cents per kWh From Aug. 2009: 6 cents per kWh
Origin Energy	20 cents per kWh	6 cents per kWh

This led to community concerns that retailers, in reducing or removing their voluntary FiT payments, could make windfall financial gains. Those gains could arise as a result of the PV electricity fed into the distribution system reducing the amount of electricity required to be purchased from the National Electricity Market (**NEM**) and, hence, electricity retailers' costs. In that sense, the fed-in PV electricity has value and the central concern was that retailers may have been retaining that value at the cost of those producing the PV electricity.

In the second-reading speech for the Bill which ultimately gave effect to the R-FiT regime, the then Minister for Energy noted that:¹³

*The government's proposal will oblige retailers, who choose to contract with solar customers, to pay **at least a minimum retail rate**, which would be determined by ESCOSA, for the power received from solar panels. The retailer payment will apply to power exported by all small-scale solar photovoltaic generators, regardless of whether or not the power exported is also eligible for the premium feed-in tariff.*

¹² Essential Services Commission, *Annual Performance Reports – Time Series Data*; available at <http://www.escosa.sa.gov.au/electricity-overview/reporting-and-compliance/annual-performance-reports.aspx>.

¹³ House of Assembly Hansard, Wednesday 6 April 2011, page 3238; available at: http://hansard.parliament.sa.gov.au/docloader/House%20of%20Assembly/2011_04_06/Daily/House%20of%20Assembly_C_Daily_DIST_2011_04_06_v20.pdf.

*The mandated minimum retailer payment will continue to apply beyond the feed-in scheme's expiry in 2028 to ensure that **retailers pay customers for the value they receive from power exported to the grid**. This minimum rate will not be subject to the new eligibility criteria of the daily cap, and the exclusion of multiple and dedicated generators.*

(emphasis added)

The R-FiT came into effect from January 2012. The amendments to the Electricity Act which gave effect to the R-FiT provided, consistent with the Government's policy intentions, that the Commission was required to make an initial price determination under the ESC Act at that time, to set an R-FiT value.

The requirement under the Electricity Act to make a price determination only applied to the initial price determination. The Commission has a discretion as to whether or not to make any subsequent R-FiT price determinations; however, if the Commission chooses to do so, it is required to take into account a set of statutory factors (as explained in Chapter 2) in reaching its decision.

Two important matters arise in respect of the R-FiT as established under the Electricity Act.

- ▲ First, any value determined by the Commission is intended to be only a minimum amount paid by retailers.
- ▲ Second, the value may vary over time (as determined by the Commission), reflecting matters such as changing market conditions.

These are important considerations, along with other statutory factors set out in the Electricity and ESC Acts, which inform the Commission when making an R-FiT price determination.

A further consideration is that, under the Electricity Act, the Commission *may* make such an R-FiT determination: for example, when it considers doing so best protects the long-term interests of South Australian electricity consumers – which is the Commission's primary statutory objective under the ESC Act; however, it is not *required* to do so.

If the Commission forms the view, having regard to all relevant statutory factors, that it would not be in South Australian electricity consumers' long-term interests for it to make an R-FiT price determination, then it will not do so.

Qualification for the R-FiT

To qualify for an R-FiT, a PV customer has to install a qualifying PV unit (as described in section 1.1 above). Unlike the D-FiT scheme, there is no time by which a qualifying PV unit must be installed and no time restriction on the payment of R-FiTs – the R-FiT scheme continues in perpetuity (albeit that there is the potential for the Commission to not set an R-FiT value) or until repealed by the Parliament. Payments under the R-FiT

The current *minimum* value of the R-FiT is 6.0 cents per kWh, set by the Commission under a price determination made in December 2013.

That price determination established a minimum R-FiT value of 7.6 cents per kWh which applied from 1 January 2014, but provided a mechanism to vary that value to 6.0 cents per kWh in the event that the Clean Energy Act 2011 was repealed or the carbon price under that Act was set to zero. The reason the carbon price affected the R-FiT is that the wholesale cost of electricity (to which the R-FiT is linked) was set at a price inclusive of the carbon price. As the principle benefit of PV exports to retailers is avoided energy purchases from the wholesale electricity market, that market price, which included a carbon component, formed the basis of the value of the R-FiT.

The Clean Energy Act 2011 has been repealed, effectively abolishing the carbon price from 1 July 2014. As the carbon price component of that minimum R-FiT payment amount no longer applies, the *minimum* R-FiT value of 6.0 cents per kWh took effect from 1 July 2014.

The *minimum* R-FiT does not mean that electricity retailers are required to set the R-FiT at 6.0 cents per kWh – retailers can, and are encouraged to, offer payments above that amount.

1.1.3 Summary of amounts payable to PV customers under the FiT arrangements

Overall, the FiT arrangements consist of two schemes – the D-FiT and the *minimum* R-FiT (currently set at 6.0 cents per kWh). The Electricity Act determines a small customer's entitlement to D-FiT and R-FiT payments and the period for which a customer will receive one or both of those payments based on the date the PV unit was connected, or approved for connection, to the network, is as follows:

**Table 1-3: Amount and period of FiT payments (at August 2014)
(nominal cents per kWh and GST exclusive)**

PV UNIT INSTALLATION / APPROVAL DATE	CREDIT AMOUNT	PERIOD PAYABLE
Category 1 qualifying customer (before 1 October 2011)	R-FiT of 6.0 cents per kWh + D-FiT of 44 cents per kWh	Ongoing (rate will vary over time) + Until 30 June 2028
Category 2 qualifying customer (1 October 2011 to 30 September 2013)	R-FiT of 6.0 cents per kWh + D-FiT of 16 cents per kWh	Ongoing (rate will vary over time) + Until 30 September 2016
Other customers (From 1 October 2013)	R-FiT of 6.0 cents per kWh	Ongoing (rate will vary over time)

2. LEGISLATIVE FRAMEWORK

Both the decision to make and the making of an R-FiT price determination occur within a statutory framework. This Chapter provides an overview of the legislative regime within which the Commission works and the specific provisions which relate to R-FiT price determinations.

2.1 *The Commission*

The Commission is a statutory authority, established under the ESC Act as a general regulator of essential services in South Australia, including the essential service of electricity supply.

Section 5 of the Act provides the Commission with a set of statutory functions.

5—Functions

The Commission has the following functions:

- (a) to regulate prices and perform licensing and other functions under relevant industry regulation Acts;*
- (b) to monitor and enforce compliance with and promote improvement in standards and conditions of service and supply under relevant industry regulation Acts;*
- (c) to make, monitor the operation of, and review from time to time, codes and rules relating to the conduct or operations of a regulated industry or regulated entities;*
- (d) to provide and require consumer consultation processes in regulated industries and to assist consumers and others with information and other services;*
- (e) to advise the Minister on matters relating to the economic regulation of regulated industries, including reliability issues and service standards;*
- (f) to advise the Minister on any matter referred by the Minister;*
- (g) to administer this Act;*
- (h) to perform functions assigned to the Commission under this or any other Act;*
- (i) in appropriate cases, to prosecute offences against this Act or a relevant industry regulation Act.*

In the performance of those functions, the Commission is required to meet the statutory objectives set out at section 6 of the ESC Act, which includes a paramount statutory objective:

6—Objectives

In performing the Commission's functions, the Commission must—

- (a) have as its primary objective protection of the long term interests of South Australian consumers with respect to the price, quality and reliability of essential services; and*
- (b) at the same time, have regard to the need to—*
 - (i) promote competitive and fair market conduct; and*
 - (ii) prevent misuse of monopoly or market power; and*
 - (iii) facilitate entry into relevant markets; and*
 - (iv) promote economic efficiency; and*
 - (v) ensure consumers benefit from competition and efficiency; and*
 - (vi) facilitate maintenance of the financial viability of regulated industries and the incentive for long term investment; and*
 - (vii) promote consistency in regulation with other jurisdictions.*

Together, these sections set out the broad scope of the Commission's role and a framework for its performance of that role. As can be seen from the provisions of section 5(a), the ESC Act expressly contemplates that other Acts, such as the Electricity Act in the case of setting R-FiT amounts, will at times call up the Commission's powers and functions.

2.2 R-FiT provisions of the Electricity Act

In section 1.1.2 above, the Commission examined the scope and purpose of the R-FiT; this section focuses on the detailed statutory arrangements for the R-FiT.

2.2.1 The R-FiT obligation and amount

The requirement for electricity retailers to pay the minimum R-FiT arises from section 36AD(1) of the Electricity Act:¹⁴

It is a condition of the licence of the electricity entity that has the relevant contract to sell electricity as a retailer to a qualifying customer who feeds electricity generated by a qualifying generator into a distribution network,

¹⁴ Section 36AD of the *Electricity Act 1996* refers to the obligation to pay the minimum R-FiT as a “condition of licence”. Since the commencement of the National Energy Retail Law in South Australia from 1 February 2013 there is no longer an obligation for electricity retailers (other than those retailing in “off-grid” areas of the State) to hold a licence; electricity retailers now hold “authorisations” issued by the Australian Energy Regulator and are termed “NERL retailers”. Section 36AD still applies to NERL retailers however, pursuant to section 14E(2) of that Act, which provides that section 36AD “... applies to a NERL retailer (despite the fact that it does not hold a licence under this Act)”.

other than an excluded network, that the retailer will, after taking into account any requirements prescribed by the regulations—

(a) credit against the charges payable by the qualifying customer for the sale of electricity to the qualifying customer the prescribed amount, or an amount determined by the retailer, being an amount greater than the prescribed amount, for electricity fed into the network in excess of the electricity used by the qualifying customer.

The Commission would again emphasise the *minimum* nature of the regulated R-FiT envisaged under the Electricity Act. The *prescribed amount* set by the Commission is intended to operate as a floor price, with electricity retailers able to determine amounts greater than that which they may offer to PV customers.

For the purposes of that section, the *prescribed amount* is the amount determined by the Commission from time to time through a price determination made in accordance with section 35A of the Electricity Act.¹⁵

Section 36AD(1) imposes a statutory, rather than a contractual, obligation on an electricity retailer to make R-FiT payments to its PV customers. This has three key consequences.

- ▲ First, all electricity retailers operating in the NEM are now required, under the National Energy Retail Law, to have available a Standing Offer for small customers, including PV customers. To the extent that any PV customer is entitled to be sold electricity by an electricity retailer under a Standing Offer, then section 36AD(1) will require that electricity retailer to make R-FiT payments, even if the terms of the Standing Offer make no provision for such payments to be made.
- ▲ Second, in the case of Market Offers, electricity retailers are not obliged to provide those offers to all small customers – they may elect to refrain from making Market Offers available to particular customers or customer classes.
- ▲ Third, even though an electricity retailer might actively seek to avoid PV customers, it may not be possible for it to do so. Under the terms of the R-FiT regime, if a customer on that “non-PV” electricity retailer’s Market Offer installs a qualifying PV unit during the life of that contract (and assuming that the installation of a PV unit does not bring the contract to an end under the terms of the Market Offer) then on and from the date of connection of that PV unit the customer will be entitled to receive R-FiT payments. This is so notwithstanding that the terms of the Market Offer make no provision for such payments to be made.

¹⁵ *Electricity Act 1996*, section 36AC(1).

2.2.2 The Commission's authority to make an R-FiT determination

Section 35A of the Electricity Act provides, in turn, that:

- (1) *The Commission may make a determination under the Essential Services Commission Act 2002 regulating prices, conditions relating to prices and price-fixing factors for—*

- (ba) *the feeding-in of electricity into a distribution network under Division 3AB;*

While 35A(1)(ba) is expressed in general terms (prices, conditions relating to prices and price-fixing factors) it needs to be construed alongside the terms of section 36AD, which require the Commission to determine *an amount*.

This means that for any determination of the prescribed amount, a particular amount (an ascertainable value) must be set. This includes setting zero as the amount.

In this sense, the R-FiT operates in a similar manner to the former electricity standing contract price determination provisions of the Electricity Act, which required the Commission to *fix* a standing contract price, notwithstanding that its general price determination powers ordinarily permit it to make determinations by other means (for example, using methods such as prices, conditions relating to prices and price-fixing factors).¹⁶

That does not, however, mean that the Commission is prevented from including additional and complementary price control mechanisms within an R-FiT price determination – provided the determination at least fixes an amount it can also impose other forms of price control, such as price monitoring.¹⁷

2.2.3 Factors specified in the Electricity Act

As is explained in more detail below, when making a price determination the Commission is required under the ESC Act to “have regard to” various factors. Those include any factors set out in the Act providing the authority for the price determination to be made – in this instance the Electricity Act.

Section 35A(2a) of the Electricity Act provides that:

- (2a) *In addition to the requirements of section 25(4) of the Essential Services Commission Act 2002, the Commission must, in acting under subsection (1)(ba), have regard to the fair and reasonable value to a retailer of electricity fed into the network by qualifying customers within the meaning of Division 3AB.*

¹⁶ See generally, Essential Services Commission, *Review of Energy Retail Price Setting Methodology, Discussion Paper*, October 2009, section 3.7 pages 22 to 25; available at <http://www.escosa.sa.gov.au/library/091023-RetailPriceMethodologyReview-DiscussionPaper.pdf>.

¹⁷ *Essential Services Commission Act 2002*, section 25(3).

While section 6A(4) provides that:

- (4) *In performing functions under this Act, the Commission must (in addition to having regard to factors specified in this Act or the Essential Services Commission Act 2002) have regard to the provisions of the National Electricity Rules and National Energy Retail Rules and the need to avoid duplication of, or inconsistency with, regulatory requirements under those Rules.*

The first of these additional factors is very important in the context of this review and is considered in detail in Chapter 3. In summary, the effect of section 35A(2a) is to require the Commission to focus on the value to electricity retailers of fed-in energy, rather than the value to PV customers.

The second factor requiring the Commission to have regard to the National Electricity Rules and the National Energy Retail Rules is, however, not relevant to the making of an R-FiT price determination.

2.3 Price determination powers under the ESC Act

As section 35A(1)(ba) permits the Commission to make a price determination under the ESC Act, it is useful to consider that price determination regime.

Section 25 of the ESC Act permits the Commission to make a price determination¹⁸ but only in cases where it is authorised to do so under a relevant industry regulation Act¹⁹ (the Electricity Act is a relevant industry regulation Act).²⁰

In this case, as shown above, the Commission is empowered under the Electricity Act to make an R-FiT price determination under the ESC Act should it choose to do so (subject to consideration of all statutory factors, as explained below).

2.3.1 Price regulation methodologies

Section 25(3) of the ESC Act sets out a non-exhaustive list of price regulation methodologies which the Commission may choose to implement in a price determination, including:

- (a) *fixing a price or the rate of increase or decrease in a price;*
- (b) *fixing a maximum price or maximum rate of increase or minimum rate of decrease in a maximum price;*
- (c) *fixing an average price for specified goods or services or an average rate of increase or decrease in an average price;*
- (d) *specifying pricing policies or principles;*

¹⁸ *Essential Services Commission Act 2002*, section 25(1).

¹⁹ *Essential Services Commission Act 2002*, section 25(2).

²⁰ *Electricity Act 1996*, section 14D.

- (e) *specifying an amount determined by reference to a general price index, the cost of production, a rate of return on assets employed or any other specified factor;*
- (f) *specifying an amount determined by reference to quantity, location, period or other specified factor relevant to the supply of goods or services;*
- (g) *fixing a maximum average revenue, or maximum rate of increase or minimum rate of decrease in maximum average revenue, in relation to specified goods or services;*
- (h) *monitoring the price levels of specified goods and services.*

Under section 25(6) of the ESC Act, this general power to select a price regulation methodology can be constrained by the terms of the authorising Act. In this case, as explained in section 2.2.2, the R-FiT provisions of the Electricity Act mean that the Commission must determine a prescribed amount.

As noted earlier, however, while the Commission must determine a prescribed amount (as opposed to a price range, for example), subject to it doing so there is nothing in the statutory scheme which would prevent the Commission from also implementing complementary arrangements, such as price monitoring to assess the effectiveness of the prescribed amount.

2.3.2 Factors to take into account and matters to ensure

Section 25(4) of the ESC Act sets out a range of factors to which the Commission must have regard when making a price determination. That section provides that, in addition to the general factors set out in section 6 of the ESC Act (refer section 2.1 above), the Commission must also have regard to:

- (a) *the particular circumstances of the regulated industry and the goods and services for which the determination is being made;*
- (b) *the costs of making, producing or supplying the goods or services;*
- (c) *the costs of complying with laws or regulatory requirements;*
- (d) *the return on assets in the regulated industry;*
- (e) *any relevant interstate and international benchmarks for prices, costs and return on assets in comparable industries;*
- (f) *the financial implications of the determination;*
- (g) *any factors specified by a relevant industry regulation Act or by regulation under this Act;*
- (h) *any other factors that the Commission considers relevant.*

As noted in section 2.2.3 above, two additional factors – the requirement to have regard to the fair and reasonable value to an electricity retailer and the requirement to have regard to the National Electricity Rules and National Energy Retail Rules – are contained in the Electricity Act and must, under section 25(4)(g), be considered by the Commission.

In addition to those factors, section 25(5) of the ESC Act provides that the Commission must ensure that:

- (a) wherever possible the costs of regulation do not exceed the benefits; and*
- (b) the decision takes into account and clearly articulates any trade-off between costs and service standards.*

It is the Commission's role to consider how best to have regard to these matters and how much weight to give each. Ultimately, the Commission is guided by its primary statutory objective – the protection of the long-term interests of South Australian consumers with respect to the price, quality and reliability of essential services.

3. IS ONGOING REGULATION OF THE RETAILER FEED-IN TARIFF NECESSARY?

- ▲ *Despite encouraging signs, the Commission considers there is further monitoring required before it can be confident that deregulation of the R-FiT would be in the long-term interests of consumers.*
- ▲ *Therefore, the Commission intends to continue to regulate the R-FiT for a further two-year period. The Commission will review the need for continued regulation prior to the expiry of this Determination.*

Under the Electricity Act and ESC Act, the Commission is required to consider several factors to determine if it is in the long-term interests of consumers for the R-FiT to be regulated beyond 1 January 2015 and, if so, the level at which the R-FiT should be set. Consistent with the approach taken in its 2013 R-FiT Determination, the Commission's consideration of those factors has been undertaken in the context of five themes:

- ▲ definition of the R-FiT market (discussed in section 3.1 below)
- ▲ the fair and reasonable value of PV electricity to electricity retailers (discussed in Chapter 4, section 4.3)
- ▲ promotion of competition, efficiency and fair market conduct (discussed in section 3.2 below)
- ▲ evidence on R-FiT equivalents from other jurisdictions (discussed in section 3.3 below), and
- ▲ deregulation and the costs of regulating (discussed in section 3.4 below).

On some of these factors, the positions reached in the 2013 R-FiT Determination remain valid. The Commission's consideration in the following sections, therefore, is limited to examining whether or not there is any evidence that would have implications on the need for, and nature of, future regulation of the R-FiT.

3.1 Definition of the R-FiT market

The decision to apply regulation, such as price regulation, generally relies on a definition of the relevant market in which a particular good or service is sold and an assessment as to whether or not market failure exists. Regulation is generally imposed to prevent businesses not subject to sufficient competitive pressures from exercising market power to the detriment of consumers.

Consistent with the view reached in the 2013 R-FiT Determination, the relevant market is the South Australian electricity small customer retail market. The R-FiT is best characterised as a discretionary add-on to an existing product within the broader electricity small customer retail market, and that if there is sufficient competition in both the overall market and the market for PV customers, retail electricity prices will reflect costs and R-FiT payments will reflect value.

The view that the PV market forms part of the broader electricity retail market is also supported by the correlation between the PV and non-PV customer switching rates, whereby a PV customer's decision to switch will be based on the consideration of both electricity usage prices and R-FiT. This matter is addressed further in section 3.2.1 below.

3.2 Promotion of competition, efficiency and fair market conduct

As a general principle, if a market is sufficiently competitive, price setting is a matter best determined by that market rather than by a regulator. That proposition is consistent with the factors specified in section 6 of the ESC Act, which focus the need to:

- ▲ Promote competitive and fair market conduct – section 6(b)(i)
- ▲ prevent misuse of monopoly or market power – section 6(b)(ii)
- ▲ facilitate entry into relevant markets – section 6(b)(iii)
- ▲ promote economic efficiency – section 6(b)(iv), and
- ▲ ensure consumers benefit from competition and efficiency – section 6(b)(v).

Effective competition is in the long-term interests of consumers, as effective competition is best able to deliver efficient prices and services. Once there is sufficient evidence of effective market competition, it is likely that a transitional period will be required before complete deregulation can occur. This period is likely to require some form of interim regulation.

The competition assessment set out in the following sections is built upon assessments previously carried out by the Commission and by the Australian Energy Market Commission (AEMC). Accordingly, the Commission has not undertaken a full competition assessment of the overall retail energy market. Rather, its consideration is limited to examining whether, or not, there is any evidence which indicates that the extent of competition for PV customers is different to that of non-PV customers.

The most recent assessment by the AEMC has found that competition continues to be effective in the retail electricity market in South Australia based on the following five indicators: customer activity, barriers to entry, exit and expansion, independent rivalry, customer satisfaction and retailer outcomes.²¹ In particular, the AEMC made the following observations:

²¹ Australian Energy Market Commission, *2014 Retail Competition Review*, 22 August 2014, available at <http://www.aemc.gov.au/getattachment/3fccbed6-ebf8-4edb-86c9-71ff22eced08/Final-report.aspx>.

- ▲ South Australia has the highest proportion of customers on Market Offers (80%) across the NEM and, that customers are proactively considering their options, (one in three last year) and there are high switching rates for customers switching between offers and retailers.
- ▲ Although market entry, exit and expansion is considered relatively easy, some smaller retailers noted the challenge in expanding in their market share without having interests in generation assets.
- ▲ There is strong rivalry in retail electricity markets (as evidenced by retailers offering different levels of discounts and incentives) despite the high market concentration, with second tier retailers being increasingly active.
- ▲ Most customers were found to be satisfied with the level of choice in the market and with their current retailer, though some perceived little difference between the choices available.
- ▲ Raising consumer awareness about the energy price comparator tool may enable consumers to be better shoppers and engage more effectively with the market (although research conducted for the AEMC²² found that in SA, only one per cent of quantitative research respondents were aware of the Energy Made Easy website on an unprompted basis, with similarly low awareness of commercial comparator sites).

Submissions from retailers express the opinion that the indicators of competition above, when applied to the R-FiT market, show that competition is healthy.²³ For example, retailers have stated that a competitive market is characterised by:

- ▲ retailers paying in excess of the minimum R-FiT
- ▲ retailers marketing their best offers to PV customers, despite the unsubstantiated claims that PV customers are more costly to serve, and
- ▲ PV customers totalling nearly a quarter of all customers; retailers risk losing market share if their R-FiT offers are not competitive.

3.2.1 *Assessing competition, efficiency and fair market conduct*

If the market for PV customers is found to be competitive then, this would provide support for ceasing to set an R-FiT – potentially to be replaced with an on-going light-handed price monitoring role.

²² AEMC, *Consumer research for nationwide review of competition in retail energy markets, qualitative and quantitative research report*, June 2014, p. 72, available at [http://www.aemc.gov.au/getattachment/736bde30-3ded-4343-8bf5-0e7511801b24/Consumer-Research-for-Nationwide-Review-of-Com-\(1\).aspx](http://www.aemc.gov.au/getattachment/736bde30-3ded-4343-8bf5-0e7511801b24/Consumer-Research-for-Nationwide-Review-of-Com-(1).aspx)

²³ Refer to the submissions from Origin Energy, Simply Energy and ESAA available at <http://www.escosa.sa.gov.au/projects/213/2015-16-minimum-retailer-solar-feed-in-tariff.aspx>.

In practice, regulators seek to form a view of the level of competitiveness by observing a range of competition indicators. The interpretation of these indicators is a matter of judgement. In practice, any assessment of competition must be made by examining these indicators as a whole, rather than relying on any single indicator to form a view about the competitiveness of a market.

The Commission's considerations of the matters relating to competition, efficiency and fair market conduct, are summarised below.

Market concentration

There were 16 retailers marketing electricity to South Australian residential and small business customers at 31 October 2014. Of these 16 retailers, 13 were catering to PV customers.

In terms of market concentration, the South Australian electricity retail market remains concentrated with 4 retailers, AGL SA, Origin Energy, EnergyAustralia and Simply Energy, having a combined small customer market share of around 86%, with each holding 48%, 20%, 10% and 9% of the market respectively.²⁴

Standing offers and the R-FiT

The Standing Offer regime is a part of the National Energy Customer Framework (**NECF**), arising under the National Energy Retail Law (**NERL**). Under that regime, each electricity retailer must have a Standing Offer available to small customers on request. The price of Standing Offers is set by the electricity retailers.

There is no general obligation to sell electricity under Standing Offer terms and conditions to any small customer at any premises on request - the obligation only arises where the electricity retailer sold electricity to the immediately preceding customer (or the same customer) at the same premises.

As the R-FiT provisions of section 36AD(1) of the Electricity Act oblige electricity retailers to make at least the *minimum* R-FiT payments to PV customers and, given that under the Standing Offer regime an electricity retailer may not refuse to provide a Standing Offer to a customer who has installed a PV unit, then it follows that all 16 electricity retailers must offer at least the *minimum* R-FiT to Standing Offer PV customers.

It is noted that Standing Offer prices tend to be the highest available prices in the market. Consequently, the total value to a PV customer of the *minimum* R-FiT and the Standing Offer price will, generally, be lower than the total value to a PV customer of the *minimum* R-FiT and a Market Offer price. Accordingly, a Market Offer should provide an overall "better deal".

²⁴ Essential Services Commission of South Australia, *South Australian Energy Retail Prices – Ministerial Pricing Report 2014*, 31 August 2014, available at: <http://www.escosa.sa.gov.au/library/140831-EnergyRetailPricesInSA-MinisterialPricingReport2014.pdf>.

Market Offers and the R-FiT

A Market Offer is any retail electricity sale arrangement other than a Standing Offer.

Electricity retailers generally offer a range of Market Offers; each may have different terms, conditions and prices including discounts, bonuses, different billing periods, different payment options, fixed contract terms and early termination fees. As with Standing Offers, prices and terms under Market Offers are set by electricity retailers. This applies to both customer groups, that is, those who have PV units and those who do not.

Retailers generally use the flexibility of Market Offers to differentiate their products and compete for market share. The proportion of customers on such offers is therefore a key indicator of the extent of competition in the energy market. Retail market data published by the Australian Energy Regulator (**AER**) indicates that the proportion of small customers on a Market Offers continues to increase in South Australia.

The retail energy market performance report for the quarter ending 31 March 2014 released by the AER shows that around 83% of electricity small customers in South Australia were on a Market Offer.²⁵

As is the case for a Standing Offer, section 36AD(1) of the Electricity Act means that, even if an electricity retailer does not wish to retail to a PV customer and make R-FiT payments, if a customer installs a PV unit during the term of a Market Offer then that customer is entitled to receive at least the *minimum* R-FiT payments. An exception to that situation would be where the terms of the Market Offer are such that it comes to an end if the customer installs a PV unit.

Level of the R-FiT under Market Offers

At October 2014, 13 out of the 16 electricity retailers were advertising an R-FiT to PV customers. The remaining three retailers do not actively market to solar PV customers.²⁶

Of the 13 retailers offering an R-FiT payment, in June 2014 only four (AGL SA, Alinta Energy, Diamond Energy and Powerdirect) were offering a payment in excess of the *minimum* R-FiT value set by the Commission. The R-FiT payments offered by these four retailers (with a collective market share of around 54%) were either 8.0 cents per kWh or 9.8 cents per kWh.

By 31 October 2014, the number of retailers offering above the minimum R-FiT had risen to seven retailers — four retailers (Energy Australia, Origin Energy, Lumo Energy and Simply Energy) had not reduced their R-FiT offers to reflect the new, lower R-FiT after the repeal of the carbon tax. Although the remaining retailers elected to make the *minimum* R-FiT payments to their PV customers, not all of those retailers reduced their R-FiT payments with immediate effect from 1 July 2014 (when the 6.0 cents per kWh R-FiT price determination took effect).

²⁵ Australian Energy Regulator, *Retail energy market performance update for Quarter 3, 2013-14*, 21 May 2014, available at: <http://www.aer.gov.au/node/25111>.

²⁶ However, these three electricity retailers are obliged to make the minimum R-FiT payments if any of their existing customers install solar PV units.

**Table 3-1: Level of R-FiT payments offered by electricity retailers
between December 2013 and October 2014**

R-FiT (C/KWH)			2013	2014									
GST exclusive			DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
	Minimum	9.8	9.8	7.6	7.6	7.6	7.6	7.6	7.6	6.0	6.0	6.0	6.0
	Market Share Jun-14	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
MAJOR RETAILERS	AGL SA	48%	9.8	9.8	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
	EnergyAustralia	10%	9.8	9.8	9.8	9.8	9.8	7.6	7.6	7.6	7.6	7.6	7.6
	Origin Energy	20%	9.8	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
	Simply Energy	9%	9.8	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
OTHER RETAILERS	Alinta Energy	3%	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
	Diamond Energy	<0.1%	9.8	9.8	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
	DoDo Power & Gas ²⁷	<0.1%	n/a	n/a	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	6.0
	Lumo Energy	6%	9.8	9.8	9.8	9.8	9.8	9.8	7.6	7.6	7.6	7.6	7.6
	Momentum Energy	2%	9.8	7.6	7.6	7.6	7.6	7.6	7.6	7.6	6.0	6.0	6.0
	Powerdirect	3%	9.8	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
	QEnergy	<0.5%	9.8	7.6	7.6	7.6	7.6	7.6	7.6	7.6	6.0	6.0	6.0
	Red Energy	<0.5%	9.8	7.6	7.6	7.6	7.6	7.6	7.6	7.6	6.0	6.0	6.0
	Sanctuary Energy	<0.1%	9.8	9.8	9.8	9.8	9.8	9.8	7.6	6.0	6.0	6.0	6.0
	Commander Power & Gas ²⁸	<0.1%	n/a	n/a	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	6.0
	ERM Power Retail	<0.1%	9.8	7.6	7.6	7.6	7.6	7.6	7.6	7.6	6.0	6.0	6.0
	Pacific Hydro	<0.5%	9.8	7.6	7.6	7.6	7.6	7.6	7.6	7.6	6.0	6.0	6.0

Note: QEnergy, Red Energy and Pacific Hydro do not actively market to PV customers.

Source: ESCOSA, AER, AEMO, Retailers.

²⁷ Dodo Power and Gas and Commander Power and Gas are the residential and the small business trading entities, respectively, of M2 Energy and are, therefore, considered to be one and the same.

²⁸ As noted Dodo and Commander are considered to be part of the same company.

Incidence of Market Offers available to PV customers

A further point to consider is the incidence of Market Offers being made available to PV customers.

Although electricity retailers are obliged to make R-FiT payments, it is the extent to which electricity retailers are actively seeking out PV customers' business that is relevant when reviewing the level of competition that is occurring.

One approach in assessing this matter, is to consider the extent to which retailers make Market Offer packages available to PV customers which do not leave them worse off overall. There are two possible reasons why retailers may not make those offers available to PV customers. First, there may be additional costs involved with serving PV customers. Second, there may be insufficient competition for PV customers.

In their submissions to the Draft Determination, Simply Energy²⁹ and AGL³⁰, asserted that there is a higher cost associated with serving PV customers. They claim that this is because, with their lower consumption, PV customers do not contribute as much to fixed costs. However, they did not provide evidence to support that claim. In addition, the potential for under-recovery of fixed costs would only arise if tariffs were not cost reflective – in particular, if fixed charges were not sufficient for the recovery of fixed costs. Retailers are able to set their own tariff structures for Market Offers and, therefore, can control that risk.

Market Offer observations

With respect to the Market Offers that retailers are marketing to PV customers at 31 October 2014 (detailed in Table 3-2, Table 3-3³¹ and Table 3-4, Table 3-5³²) the following outcomes were observed:

- ▲ seven retailers made their best-priced Market Offers available to PV customers (a summary is also included in Table 3-6 below)
 - including Origin Energy, Simply Energy, Lumo Energy, Momentum Energy, Dodo/Commander Power and Gas, ERM Power Retail, and Alinta Energy³³ — who together share 40% of the market (refer to Table 3-1 for retailers' market shares).

²⁹ See Simply Energy, Submission to the Draft Determination, p.2, <http://www.escosa.sa.gov.au/library/2014111-RetailerFiTDraftPriceDeterminationSubmission-SimplyEnergy.pdf>.

³⁰ See AGL, Submission to the Draft Determination, p.1, <http://www.escosa.sa.gov.au/library/2014111-RetailerFiTDraftPriceDeterminationSubmission-AGL.pdf>.

³¹ The figures in Table 3-2 and Table 3-3, were sourced from the Energy Made Easy website, excludes GST and includes all conditional and non-conditional discounts for a typical residential customer consuming 5,000 kWh per annum (excluding off-peak and green energy).

³² The figures in Table 3-4 and Table 3-5 were sourced from the Energy Made Easy website, excludes GST and includes all conditional and non-conditional discounts for a typical small business customer consuming 10,000 kWh per annum (excluding off-peak and green energy).

³³ Alinta Energy only makes available the one offer (its Standing Offer) to small business customers.

- The outcome for 31 October 2014 is a slight deterioration from 30 June 2014 results when eight retailers made their best-priced Market Offer available to PV customers; however, in terms of market share it represents an improvement from the 37% observed at June 2014.
- ▲ four retailers did not make their best-priced Market Offers available to PV customers
 - Retailers in this group included: AGL SA, Energy Australia, Alinta Energy³⁴, and Powerdirect — who together share 64% of the market.
 - However, these retailers offered R-FiTs above the *minimum* R-FiT.
 - Despite the higher R-FiT payments, the best-priced residential PV Market Offers ranged from \$12 (Powerdirect) to \$242 (Alinta Energy) more costly than their best-priced Market Offers.
- ▲ eight retailers were making R-FiT payments above the minimum value (AGL SA, Alinta Energy, Powerdirect, Origin Energy, Energy Australia, Simply Energy, Lumo Energy and Diamond Energy) an improvement over 30 June 2014 when only four retailers (AGL SA, Alinta Energy, Powerdirect, and Diamond Energy) were paying above the minimum value. The other four retailers appear to not have changed their R-FiT offerings from the minimum value that was ruling at 30 June 2014.
- ▲ the remaining three retailers, QEnergy, Red Energy and Pacific Hydro, with a combined market share of 0.5%, do not actively market to PV customers.

Furthermore, at 31 October 2014, interrogation of the Energy Made Easy price comparison website showed that:

- ▲ across all small customer offerings, 38 out of 58 Market Offers (66%) were available to small PV customers in October compared with similar outcomes of 71 of 110 (65%) on 30 June 2014 and 72 out of 97 (74%) at 31 December 2013.
- ▲ in the residential market, five retailers were offering the same number of offers to both PV and non-PV customers; including Dodo Power and Gas, Lumo Energy, Momentum Energy, Origin Energy and Simply Energy.
- ▲ in the small business market, six retailers were offering the same number of offers to both PV and non-PV customers; including Alinta Energy, Commander Power and Gas, ERM Power Retail, Lumo Energy, Momentum Energy, and Origin Energy.
- ▲ retailers continued to offer a range of incentives to PV customers; such as exemptions from paying certain fees and charges and discounts on total usage charges. The largest discounts offered to residential PV customers reached 16%, and

³⁴ In contrast to its small business customers, Alinta Energy did not make available its best priced offer to residential customers. Alinta's market share of 3% therefore appears in both groups.

- ▲ only one retailer (Simply Energy) was charging an “additional supply charge” to residential customers with solar PV systems. Other than this exception, the early termination (or exit) fees did not appear to be substantially different across either PV and non-PV Market Offers — fees are generally set based on the length of term of a contract.

A further matter considered by the Commission is the market shares of the largest electricity retailers operating in South Australia and the extent to which they offer R-FiT payments either above or at the *minimum* R-FiT available on their best-priced Market Offers.

As set out above in Table 3-1, the four largest electricity retailers (by market share) are AGL SA (48%), Origin Energy (20%), EnergyAustralia (10%) and Simply Energy (9%). Table 3-2b shows that in June 2014, only AGL SA was offering a payment in excess of the *minimum* R-FiT, and that two retailers (Origin Energy and Simply Energy) made their best-priced Market Offer available to PV customers alongside the *minimum* R-FiT payments. By 31 October 2014, Table 3-2a shows that all four of the major retailers were offering R-FiT payments above the minimum (albeit the three retailers who were offering the minimum previously have simply not adjusted their offers).

The Commission notes that in June 2014, eight retailers (with a combined market share of 37%) are making their best-priced (residential and small business) Market Offers to existing and potential new PV customers. By October 2014, the number of retailers offering their best offer to PV customers had fallen slightly to seven.

One final matter to note is that analysis shows that, in June 2014, three of the four retailers making R-FiT payments above the minimum were not offering their lowest priced Market Offer to PV customers. Accordingly, for those PV customers with average consumption and smaller PV systems (and not receiving the D-FiT) may be financially worse off if they are on a Market Offer with a relatively high R-FiT if they also do not receive the lowest energy prices. Such customers are at risk because they will be paying higher consumption tariffs for imported electricity but, because they are unlikely to export much PV electricity back to the grid, they do not benefit from the higher R-FiT being offered.

Table 3-2: Price based comparison of residential offers (assuming 5,000 kWh pa) at 31 October 2014 (GST exclusive)

		BEST-PRICED OFFER			BEST-PRICED OFFER FOR PV CUSTOMERS			DIFFERENCE in cost between offers
		Product Name	Estimated Annual Cost	Available to PV Customers?	Product Name	Estimated Annual Cost	R-FiT offer (c/kWh)	
Offers ABOVE the minimum R-FiT	AGL SA	Select 12% South Australia residential electricity no early termination fee market offer	\$1,606	✗	Advantage 7% South Australia residential electricity market offer	\$1,684	8.0	\$78
	Alinta Energy	Fair Go 15	\$1,621	✗	Standing Offer	\$1,863	9.8	\$242
	Powerdirect	Powerdirect 13% South Australia residential electricity market offer	\$1,704	✗	Powerdirect 7% South Australia residential electricity market offer	\$1,716	8.0	\$12
	EnergyAustralia	Flexi Saver - Home - Peak Only	\$1,645	✗	Power Plan - Home - Peak Only	\$1,694	7.6	\$49
	Diamond Energy	Diamond Solar	\$1,625	✓	Diamond Solar	\$1,625	8.0	-
	Lumo Energy	Lumo Advantage	\$1,559	✓	Lumo Advantage	\$1,559	7.6	-
	Origin Energy	eSaver - no exit fees up to 16% electricity usage discount (Single rate)	\$1,643	✓	eSaver - no exit fees up to 16% electricity usage discount (Single rate)	\$1,643	7.6	-
	Simply Energy	SA Super Saver 17/10 DD EB	\$1,599	✓	SA Super Saver 17/10 DD EB	\$1,599	7.6	-
Offers AT the minimum R-FiT	DoDo Power and Gas	Residential Single Rate Market Offer (ESSAR-MAT1)	\$1,492	✓	Residential Single Rate Market Offer (ESSAR-MAT1)	\$1,492	6.0	-
	Momentum Energy	Momentum SmilePower Flexi – No Exit Fee GD\QRSR\MRSR	\$1,694	✓	Momentum SmilePower Flexi – No Exit Fee GD\QRSR\MRSR	\$1,694	6.0	-
	QEnergy	Home Your Way Single Rate	\$1,763	✗	n/a	n/a	n/a	n/a
	Red Energy	Living Energy Saver - Residential	\$1,588	✗	n/a	n/a	n/a	n/a

Table 3-3: Price based comparison of residential electricity offers (at 30 June 2014) (GST exclusive)

		BEST-PRICED MARKET OFFER			BEST-PRICED MARKET OFFER FOR PV CUSTOMERS			DIFFERENCE in cost between offers
		Product Name	Estimated Annual Cost	Available to PV Customers?	Product Name	Estimated Annual Cost	R-FiT (c/kWh)	
Offers ABOVE the minimum R-FiT	AGL SA	Select 8% South Australia residential electricity market offer	\$1,620	✗	Advantage 7% South Australia residential electricity market offer	\$1,666	8.0	\$46
	Alinta Energy	Fair Go 15	\$1,625	✗	Standing Offer	\$1,868	9.8	\$243
	Diamond Energy	DE Residential Single Rate Solar	\$1,629	✓	DE Residential Single Rate Solar	\$1,629	8.0	-
	Powerdirect	Powerdirect 12% South Australia residential electricity market offer	\$1,602	✗	Powerdirect 7% South Australia residential electricity market offer	\$1,680	8.0	\$78
Offers AT the minimum R-FiT	DoDo Power and Gas	Residential Single Rate Market Offer (ESSAR-MAT1)	\$1,492	✓	Residential Single Rate Market Offer (ESSAR-MAT1)	\$1,492	7.6	-
	EnergyAustralia	Everyday Saver - Home - Peak Only (Online offer)	\$1,628	✗	Power Plan - Home - Peak Only	\$1,677	7.6	\$49
	Lumo Energy	Lumo Advantage	\$1,725	✓	Lumo Advantage	\$1,725	7.6	-
	Momentum Energy	Momentum SmilePower Flexi – No Exit Fee GD\QRSR\MRSR	\$1,815	✓	Momentum SmilePower Flexi – No Exit Fee GD\QRSR\MRSR	\$1,815	7.6	-
	Origin Energy	eSaver - no exit fees up to 16% electricity usage discount (Single rate)	\$1,646	✓	eSaver - no exit fees up to 16% electricity usage discount (Single rate)	\$1,646	7.6	-
	Pacific Hydro	SA Home Smart 12 (No exit fee)	\$1,718	✗	n/a	n/a	n/a	n/a
	QEnergy	Freedom Home	\$1,619	✗	n/a	n/a	n/a	n/a
	Red Energy	Living Energy Saver - Residential	\$1,656	✗	n/a	n/a	n/a	n/a
	Sanctuary Energy	Standard Negotiated Contract	\$1,722	✓	Standard Negotiated Contract	\$1,722	7.6	-
	Simply Energy	SA Super Saver 17/10 DD EB	\$1,599	✓	SA Super Saver 17/10 DD EB	\$1,599	7.6	-

Table 3-4: Price based comparison of small business (10,000 kWh) offers (at 31 October 2014) (GST exclusive)

		BEST-PRICED MARKET OFFER			BEST-PRICED OFFER FOR PV CUSTOMERS			DIFFERENCE
		Product Name	Estimated Annual Cost	Available to PV Customers?	Product Name	Estimated Annual Cost	R-FiT offer (c/kWh)	in cost between offers
Offers ABOVE the minimum R-FiT	AGL SA	Select 13% South Australia small business electricity market offer	\$2,956	✗	Freedom 5% South Australia small business electricity no early termination fee market offer	\$3,275	8.0	\$319
	Alinta Energy	Small Business Standing Offer - 126	\$3,504	✓	Small Business Standing Offer - 126	\$3,504	9.8	-
	Powerdirect	Powerdirect 18% South Australia small business electricity market offer	\$3,081	✗	Powerdirect 5% South Australia small business electricity no early termination fee market offer	\$3,258	8.0	\$447
	Diamond Energy	Diamond Solar	\$3,683	✓	Diamond Solar	\$3,683	8.0	-
	EnergyAustralia	Everyday Saver - Business - Peak Only (Online offer)	\$3,256	✗	Everyday Saver - Business - Peak Only	\$3,468	7.6	\$212
	Lumo Energy	Lumo Business Premium	\$2,977	✓	Lumo Business Premium	\$2,977	7.6	-
	Origin Energy	Business eSaver up to 15% electricity usage discount (Single rate)	\$3,099	✓	Business eSaver up to 15% electricity usage discount (Single rate)	\$3,099	7.6	-
	Simply Energy	SA Simply Guaranteed SME 192 tariff	\$2,897	✗	SA SME Saver 18 - Tariff 126	\$2,979	7.6	\$82
Offers AT the minimum R-FiT	Commander Power and Gas	South Australia Commander Business Offer (Single Rate)	\$2,985	✓	South Australia Commander Business Offer (Single Rate)	\$2,985	6.0	-
	ERM Power Retail	Adjustable	\$3,005	✓	Adjustable	\$3,005	6.0	-
	Momentum Energy	Momentum SmilePower E\QBSR\MBSR	\$3,252	✓	Momentum SmilePower E\QBSR\MBSR	\$3,252	6.0	-
	Pacific Hydro	SA Business Smart 36 (No Exit Fee)	\$2,975	✗	n/a	n/a	n/a	n/a
	QEnergy	Biz same single rate	\$2,718	✗	n/a	n/a	n/a	n/a
	Red Energy	Living Energy Saver - Business	\$3,044	✗	n/a	n/a	n/a	n/a

Table 3-5: Price based comparison of small business electricity offers (at 30 June 2014) (GST exclusive)

		BEST-PRICED MARKET OFFER			BEST-PRICED MARKET OFFER FOR PV CUSTOMERS			DIFFERENCE
		Product Name	Estimated Annual Cost	Available to PV Customers?	Product Name	Estimated Annual Cost	R-FiT (c/kWh)	in cost between contracts
Offers ABOVE the minimum R-FiT	AGL SA	Select 11% South Australia small business electricity market offer	\$2,980	✗	Advantage 5% South Australia small business market offer	\$3,233	8.0	\$253
	Alinta Energy	Small Business Standing Offer - 126	\$3,514	✗	Small Business Standing Offer - 126	\$3,514	9.8	-
	Diamond Energy	DE Non-Residential Single Rate Solar	\$3,155	✓	DE Non-Residential Single Rate Solar	\$3,155	8.0	-
	Powerdirect	Powerdirect 18% South Australia small business electricity market offer	\$3,031	✗	Powerdirect 5% South Australia small business electricity no early termination fee market offer	\$3,471	8.0	\$440
Offers AT the minimum R-FiT	Commander Power and Gas	South Australia Commander Business Offer (Single Rate)	\$2,990	✓	South Australia Commander Business Offer (Single Rate)	\$2,990	7.6	-
	EnergyAustralia	Everyday Saver - Business - Peak Only (Online offer)	\$3,190	✗	Everyday Saver - Business - Peak Only	\$3,399	7.6	\$209
	ERM Power Retail	Adjustable	\$3,260	✓	Adjustable	\$3,260	7.6	-
	Lumo Energy	Lumo Business Premium (Standing Offer)	\$3,187	✓	Lumo Business Premium	\$3,187	7.6	-
	Momentum Energy	Momentum SmilePower E\QBSR\MBSR	\$3,073	✓	Momentum SmilePower E\QBSR\MBSR	\$3,073	7.6	-
	Origin Energy	Business eSaver up to 15% electricity usage discount (Single rate)	\$3,026	✓	Business eSaver up to 15% electricity usage discount (Single rate)	\$3,026	7.6	-
	Pacific Hydro	SA Business Smart 36 (No Exit Fee)	\$2,986	✗	n/a	n/a	n/a	n/a
	QEnergy	Freedom Biz	\$2,885	✗	n/a	n/a	n/a	n/a
	Red Energy	Living Energy Saver - Business	\$3,670	✗	n/a	n/a	n/a	n/a
	Simply Energy	SA SME Saver 18 - Tariff 126	\$3,089	✓	SA SME Saver 18 - Tariff 126	\$3,089	7.6	-

For clarity, Table 3-6 below summarises the results of Table 3-2 and Table 3-3 above to identify the relationship between contract offers and the R-FiTs being offered by retailers that actively market to PV customers.

Table 3-6: Summary of the relationship between contract offers and R-FiT offers for October 2014

RETAILER	BEST MARKET OFFER AVAILABLE TO PV CUSTOMERS		R-FIT OFFERS ABOVE THE REGULATED MINIMUM		R-FIT OFFER (c/kWh)
	Residential	Small Business	Residential	Small Business	
AGL SA	✗	✗	✓	✓	8.0
Alinta Energy	✗	✓	✓	✓	9.8
DoDo/Commander Power and Gas	✓	✓	✗	✗	6.0
EnergyAustralia	✗	✗	✓	✓	7.6
ERM Power Retail	-	✓	-	✗	6.0
Lumo Energy	✓	✓	✓	✓	7.6
Momentum Energy	✓	✓	✗	✗	6.0
Origin Energy	✓	✓	✓	✓	7.6
Powerdirect	✗	✗	✓	✓	8.0
Simply Energy	✓	✗	✓	✓	7.6
QEnergy	✗	✗	-	-	
Red Energy	✗	✗	-	-	
Pacific Hydro	-	✗	-	-	

Note: QEnergy, Red Energy and Pacific Hydro do not market to PV customers.

Source: ESCOSA, Retailers.

Barriers to entry and expansion

Barriers to entry and expansion for retailers are low in the PV element of the electricity retail market in South Australia, largely limited to the costs in upgrading billing systems.

For retailers already selling electricity to customers, there are no entry barriers preventing them from seeking to also sell to PV customers, with retailer authorisation under National Energy Retail Law primarily aimed at ensuring competency to operate in the NEM.

Providing that a business meets the three entry criteria set out in the National Energy Retail Law (organisational and technical capacity, financial resources and suitability), there are minimal entry barriers for new entrants to the market. Accordingly, this creates a credible threat of competition for PV customers from new or existing electricity retailers in the market.

Information and transaction costs

All consumers are able to enter into Market Offers with an electricity retailer of their choice (although the range of Market Offers available to a particular customer will be subject to the terms and conditions of the offers, as set by retailers).

Consumers play an important role in encouraging the efficient operation of markets. Through their choices, consumers encourage businesses to compete and innovate. If consumers do not have access to information – in a clear and accessible form – to understand the products on offer, then effective consumer participation will not occur.

Consumers are currently able to access a price comparison tool to compare different electricity retail products and make informed choices about electricity Standing and Market Offers. Further, electricity retailers are required under the National Electricity Retail Law to provide an Energy Price Fact Sheet – a summary of the features, terms and conditions of each of their Standing and Market Offers.

To examine the accessibility and relevance of the information available to PV consumers, the Commission undertook a desktop review of the information on the Energy Made Easy website operated by the AER, electricity retailers' energy pricing fact sheets and electricity retailers' websites. The objective was to examine whether or not concerns expressed by the Commission in the 2013 R-FiT Review have been addressed.

While information to facilitate informed decision-making is generally available to consumers, there remain gaps between different information sources and discrepancies in how information is disclosed to PV customers. For some electricity retailers, there were also discrepancies between the information supplied by those retailers to be uploaded onto the Energy Made Easy website and those advertised on their websites (for example, number of available electricity offers).

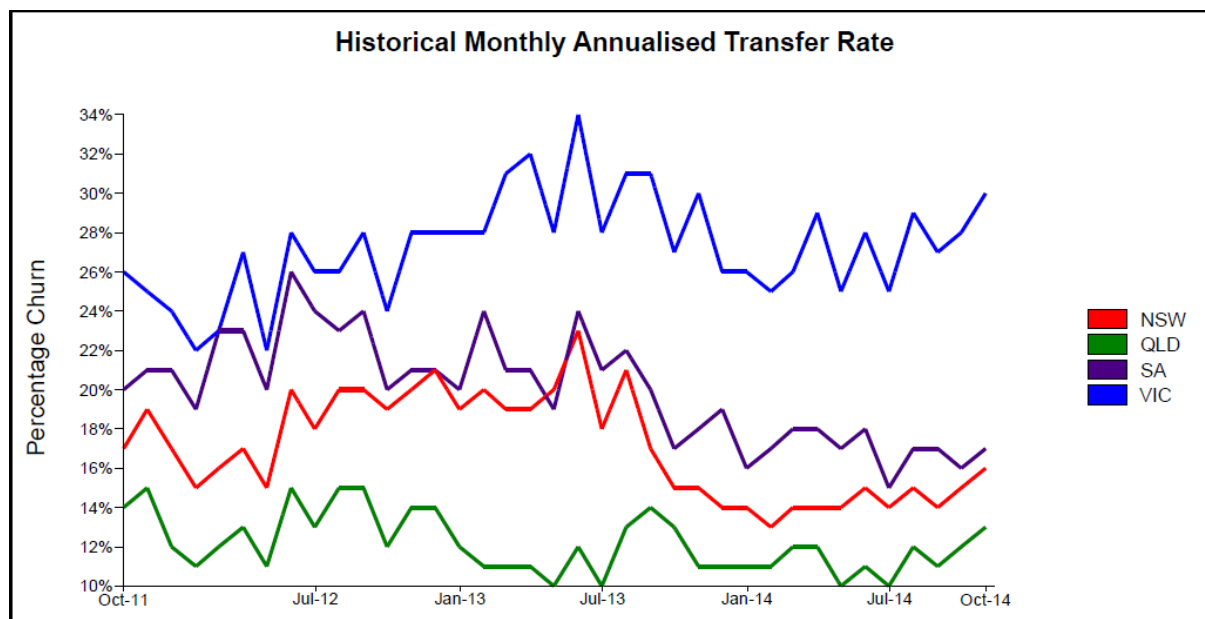
These issues indicate that there continue to be some inadequacies in terms of information and customer service provision for PV customers. In particular, retailers' information disclosure practices do not appear to be assisting PV customers to compare offers easily nor do they assist customers to identify the offer best suited to their particular circumstances. This concern over information disclosure applies to Market Offers generally. Regardless of the channel used, information should be provided in a standardised, consistent, concise and transparent manner that would facilitate informed decision-making of the various competing Market Offers by consumers.

Customer switching rates

The rate of customer switching between electricity retailers provides a key indicator of the intensity of competition for customers.

For the overall small customer retail electricity market, historical monthly transfer rate data published by AEMO indicates that South Australia continues to have a high transfer rate compared to most other jurisdictions until July 2013, as shown below. However, transfer rates since have declined.

Figure 3-1: AEMO comparative monthly transfer rates between electricity retailers

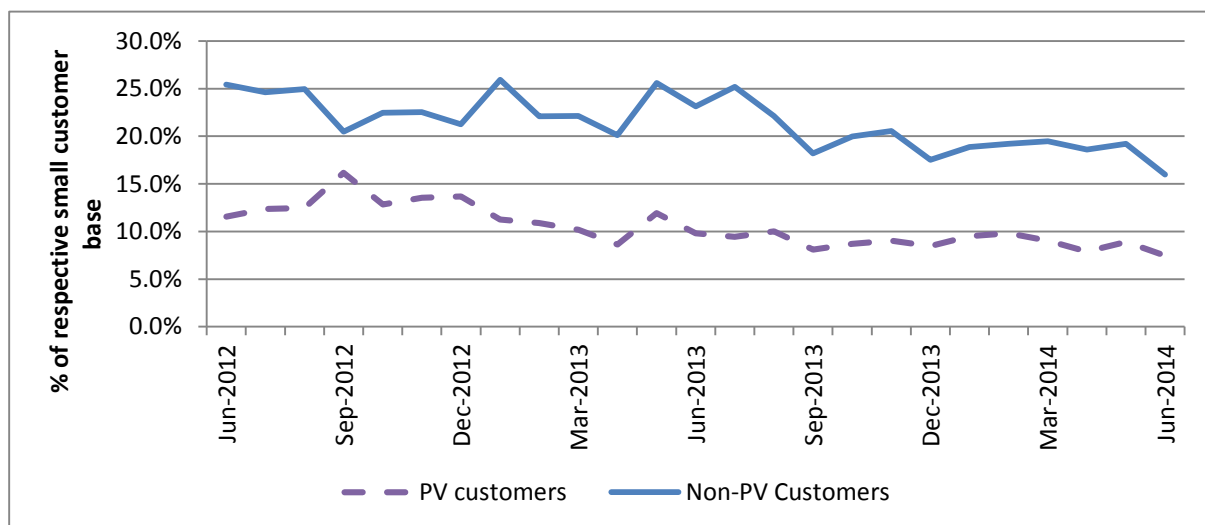


Source: Australian Energy Market Operator

For the purposes of developing this Price Determination, switching data for both PV and non-PV small customers was obtained from SA Power Networks and AEMO and compared with data obtained from electricity retailers.

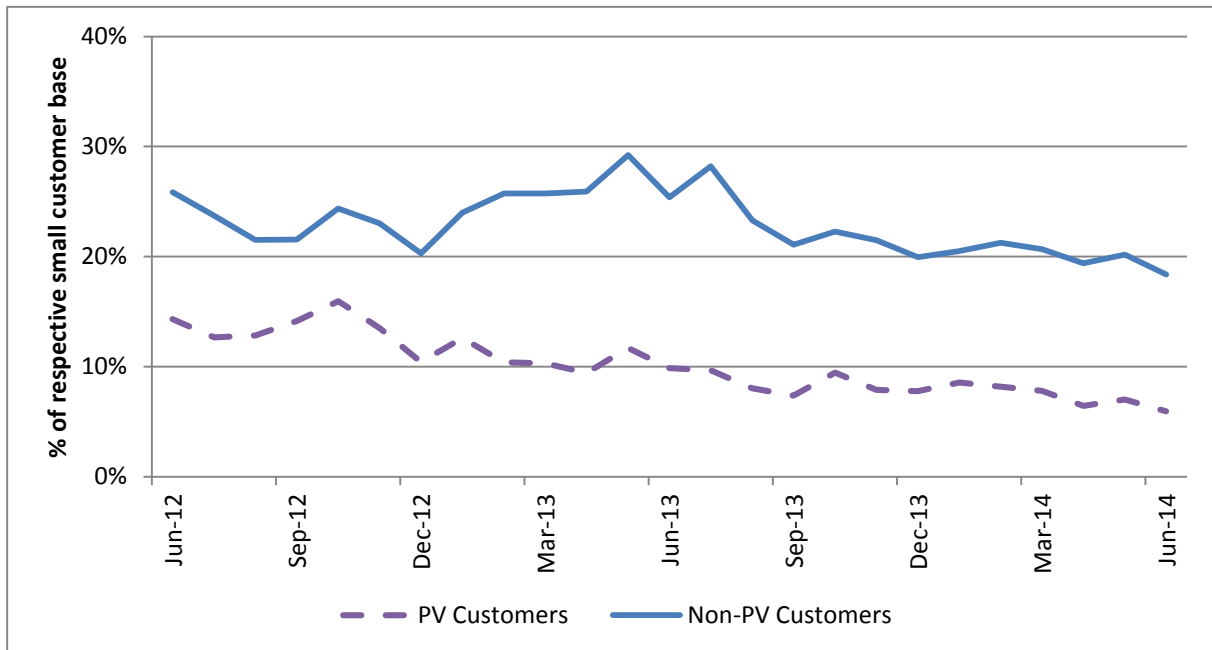
Data provided by SA Power Networks and AEMO shows that switching rates of PV customers are generally well below switching rates of non-PV customers. This is generally consistent with the information provided by electricity retailers (presented below in aggregate form). The figures show switching rates between retailers and switching rates within retailers (that is, changing Market Offers within the same retailer).

Figure 3-2: Historic monthly annualised transfer rate for small customers switching between retailers (SA Power Networks/AEMO data)



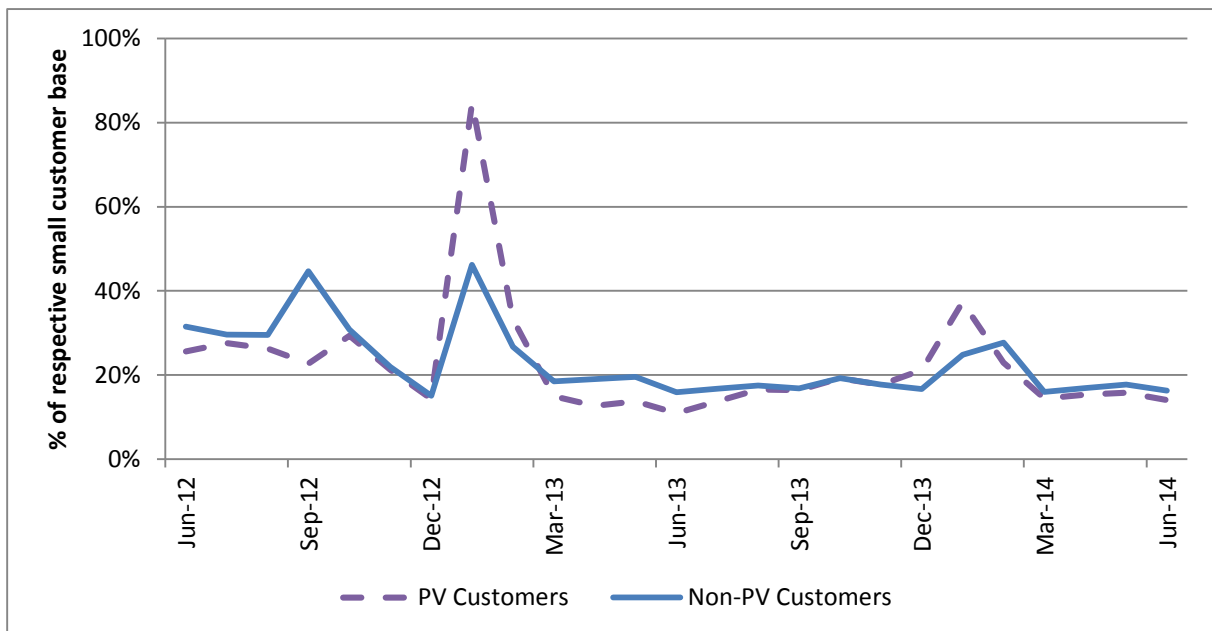
Source: SA Power Networks and Australian Energy Market Operator

Figure 3-3: Historic monthly annualised transfer rate for small customers switching from another electricity retailer (retailer data)



Source: Electricity retailers

Figure 3-4: Historic monthly annualised transfer rate for small customers switching between products offered by their existing electricity retailer (retailer data)



Source: Electricity retailers

The spike in the proportion of PV customers switching between products offered by their existing electricity retailer in December-January 2014 was primarily driven by the high level of marketing activity undertaken by a major retailer to target its internal electricity small customer base.

The above figures depicting the switching data provided by SA Power Networks (and analysed by AEMO) and electricity retailers both show that the switching rates for PV and non-PV customers are highly correlated, but that the switching rate for PV customers is substantially lower. The correlation between the PV and non-PV switching rates supports the view that the PV market forms part of the broader electricity retail market, whereby a PV customer's decision to switch will be based on both the electricity usage prices and the R-FiT amount. As the usage price of electricity imported from the grid is a major driver of a PV customer's bill, it seems logical that trends in PV and non-PV customer switching will follow each other, as both sets of customers generally face the same price movements.

The lower switching rate for PV customers may also be influenced by other factors. For example, the PV customers who export energy will generally have lower bills than non-PV customers and therefore have less financial incentive to switch retailers.

In its submission to the Draft Determination, Lumo Energy indicated that switching rates for PV customers with different D-FiT rates should be separately assessed, as those customers on the 44 cent per kWh D-FiT may be less likely to switch retailers on the basis of changes to the R-FiT. For these customers, the R-FiT is a small proportion of the total feed-in tariffs, whereas customers without a D-FiT must rely solely on the R-FiT for any feed-in benefit. This analysis was not possible due to the unavailability of data but will be undertaken in future considerations of the R-FiT switching rates.

3.3 Evidence on R-FiT equivalents from other jurisdictions

The ESC Act provides that the Commission is to have regard to relevant interstate evidence when making price determinations:

- ▲ section 25(4)(e) requires it to have regard to any relevant interstate and international benchmarks for prices, and
- ▲ section 6(b)(vii) requires it to have regard to the need to promote consistency in regulation with other jurisdictions.

Accordingly, the Commission has reviewed equivalent R-FiT arrangements in other jurisdictions, whether existing or proposed, as summarised in Table 3-7 below.

The Commission has also summarised the R-FiT equivalent regimes in New South Wales, Queensland and Victoria, the largest jurisdictions in the NEM, in Appendix 1.

Table 3-7: Jurisdictional comparison of FiT arrangements (October 2014)

JURISDICTION	DISTRIBUTOR FIT D-FiT (c/kWh)	RETAILER FIT R-FiT (c/kWh)
Australia Capital Territory	30.16 - 50.05 NIL from 14 July 2011	6.0 - 7.5 (voluntary)
New South Wales	20 - 60 NIL from 29 April 2011	4.9 - 9.3 (non-mandatory benchmark range) 0 - 10 (voluntary)
Northern Territory	NIL	27.13 (one-for-one FiT) (mandatory)
Queensland	8 - 44 NIL from 1 July 2014	South-east Queensland 0 - 10 (voluntary)
		Ergon Energy distribution network 6.53 (mandatory)
South Australia	16 - 44 NIL from 1 October 2013	6.0 (mandatory)
Tasmania	NIL	5.5 (mandatory)
Victoria	25 - 60 NIL from 1 January 2013	8.0 (mandatory)
Western Australia	40 - 60 NIL from 1 August 2011	Synergy: 8.6452 (voluntary)
		Horizon Power (voluntary) (location specific) 10 - 50

Note: In the above table, where a jurisdiction regulates the R-FiT, it is referred to as the “mandatory” value and where no regulation exists, the range of retailer offers is noted.

3.4 Deregulation and the costs of regulating

Under the ESC Act, the Commission is required, in making a price determination, to have regard to the following factors:

- ▲ the costs of making, producing or supplying the goods or services: section 25(4)(b)
- ▲ the costs of complying with laws or regulatory requirements: section 25(4)(c), and
- ▲ facilitate maintenance of the financial viability of regulated industries and the incentive for long term investment: section 6(b)(vi).

In the current context, it is the Commission's view that these factors relate to the arguments for "deregulation" of the R-FiT in the context of the costs of regulation under the R-FiT. Within the context of the scheme of the R-FiT, deregulation means the circumstance where the Commission either decides not to make an R-FiT price determination at all or does so but sets the prescribed minimum amount at zero.

In considering these factors, the Commission notes that there is a difference between the costs of regulation overall (that is, the administration of the R-FiT) and the actual costs of serving PV customers. In that latter context, in the absence of evidence that the costs of serving PV customers is related to kWh of PV electricity fed-in to the distribution network, then those costs should not affect the amount (in cents per kWh) determined for the R-FiT (although those costs may explain such outcomes as electricity retailers not making their best-priced Market Offers available to PV customers).

However, it is accepted that there may be additional administrative costs associated with the regulated *minimum* R-FiT and that those costs are relevant to the making of an R-FiT price determination. In reaching this position, the Commission has had regard to the costs of supplying R-FiT services, complying with R-FiT laws and regulatory requirements and the incentive for long term investment.

Of those factors, the first two are considered to have greater weight, as, in respect of the last matter, there is no evidence available that would suggest that a potential new entrant retailer would avoid market entry merely on the basis of the R-FiT.

3.5 Other factors

The Commission also notes that section 25(4)(g) of the *ESC Act* requires it to have regard to any factors specified by a relevant industry regulation Act. There are two such factors set out in the *Electricity Act*:

- ▲ section 35A(2a) - *have regard to the fair and reasonable value to an electricity retailer of electricity fed into the network by PV customers*: this matter is relevant in ascribing a value to the fed-in electricity, not in whether a determination should be made. As such this matter is considered in section 4.3 below, and

- ▲ section 6A(4) - *have regard to the provisions of the National Electricity Rules and National Energy Retail Rules and the need to avoid duplication of, or inconsistency with, regulatory requirements under those Rules*: as noted earlier, this matter is not relevant in respect of an R-FiT price determination and, as a result, has not been considered.

3.6 Commission's consideration

The Draft Price Determination, proposed making a two-year price determination, setting a *minimum* R-FiT value of 5.3 cents per kWh to apply from 1 January 2015. The R-FiT value itself was proposed to be updated annually, using a pre-determined methodology and set at the lower bound of a reasonable range of pricing outcomes. This was to ensure that the R-FiT reflects wholesale electricity cost movements each year and continues to provide sufficient room for electricity retailers to compete above that floor price.

As well as setting the *minimum* R-FiT value, the Draft Price Determination also proposed the implementation of a formal price-monitoring regime to allow the Commission to monitor the extent of competition for PV customers and the incidence of FiTs above the mandatory *minimum* R-FiT value over the next regulatory period. Evidence provided through that process was to inform the Commission's future decision as to whether or not a further price determination was required for the period beyond December 2016.

This Price Determination confirms this approach, yet acknowledges that the signs of competition are becoming more encouraging, particularly since the time that the analysis was undertaken for the Draft Report. For example in October 2014, fewer retailers were offering the minimum R-FiT compared with June 2014, as shown in Table 3-1 on page 27.

Following the Draft Price Determination, the Commission has had the benefit of considering submissions to the Draft Determination and a consideration of the results of the AEMC's 2014 Retail Competition Review,³⁵ the first of a new series of annual competition reports to be conducted by the AEMC.

Prior to making a final determination in 2016, the Commission will have access to the results of the formal price-monitoring regime to be introduced as part of this Final Price Determination, as well as the results of two additional AEMC reviews of the broader energy market.

The Draft Price Determination concluded that:

*There has not been sufficient evidence of competition for PV customers to conclude that deregulation of the R-FiT would be in the long-term interests of consumers.*³⁶

³⁵ AEMC, *2014 Retail Competition Review –Final Report*, 22 August 2014.

³⁶ Essential Services Commission, *2015-16 Retailer Feed-in Tariff*, Draft Price Determination, Statement of Reasons, p.21, available at <http://www.escosa.sa.gov.au/library/20141002-Electricity-RetailerFiT-DraftPriceDetermination2015-StatementOfReasons.pdf>.

Simply Energy's submission argued that the Commission needs to *state clearly and specifically the evidence it would accept in order to end FiT price regulation*.³⁷ Discussion of this matter follows in the next section.

3.6.1 Current indicators of competition

In its most recent report, the AEMC determined that competition in the South Australian retail electricity market is effective. This is consistent with earlier AEMC reviews which found the South Australian market to be effectively competitive and so has the recent post-deregulation AEMC review. On this basis, the end result has been the removal of the regulatory costs without any apparent adverse impact, suggesting a net benefit to consumers.

However, the AEMC noted that AGL and Origin Energy's agreement to adopt, and hold steady, discounted standing contract prices (implemented at the time of energy retail price deregulation in February 2013) remains in operation until end of calendar 2014. Given that it is less than two years since deregulation, the Commission considers that a formal price-monitoring regime for the PV market for a further two years has merit.

As noted in earlier papers, the Commission is not convinced that, in the long term, the regulation of the R-FiT will always ensure a positive outcome for PV customers; retailers can always vary consumption tariffs to offset the R-FiT. Most PV customers need to rely, at least to some extent upon electricity purchases (in the absence of cost effective PV storage options) to meet their electricity needs.

It should be recognised, that in the majority of circumstances, the primary benefit of PV, that is, the benefit that underpins the investment, is the reduced call on imported energy. The Commission estimates that the average annual contribution of the R-FiT for a customer with a 4 kW system and consuming 5,000 kWh to be approximately \$60 per annum at 5.3 cents per kWh (see Table 5.1).

3.6.2 Considerations for future regulation

Just as the Commission was asked in submissions to identify what would the status of the various indicators of competition need to be to convince it to cease regulation of the R-FiT, it is also worthwhile to address the question as to what circumstances might exist in two years' time for the Commission to reconsider deregulation.

Should the encouraging signs of competition continue to be confirmed, the Commission is prepared to reconsider the ongoing regulation of the R-FiT beyond 2016. As competition ought to be a dynamic process, the Commission would expect to see R-FiT offers that reflect value to retailers while, at the same time, PV customers should not be limited to a smaller range of (higher) consumption tariffs for imported energy compared to customers without PV systems.

³⁷ See Simply Energy's submission to the Draft Determination, p.2 available at <http://www.escosa.sa.gov.au/library/2014111-RetailerFiTDraftPriceDeterminationSubmission-SimplyEnergy.pdf>

In general terms, the Commission is favourably disposed to deregulation of the R-FiT, unless it observes a marked deterioration in the effectiveness of the overall energy retail market or becomes aware of evidence conclusively demonstrating that the PV market is not competitive in South Australia. In relation to the latter, any evidence that PV customers are being discriminated against would be of concern.

3.7 *The final decision to make a price determination*

Under section 35A of the Electricity Act, the Commission has discretion as to whether or not it will make an R-FiT price determination at all.

In this instance, the Commission will make a two-year price determination of the *minimum* R-FiT set at the lower bound of a reasonable range of pricing outcomes, with the value to be updated on 1 January 2016 if the forecast value is greater than $\pm 10\%$ of the prescribed value.

3.7.1 *Key reasons for making an R-FiT price determination*

The proposal to continue the regulation of the R-FiT was challenged in several submissions by retailers to the Draft Determination. While the Commission remains favourably disposed to deregulation of this market, it considers that the long term interests of consumers are best served via regulation for a further two years, for the reasons outlined below.

Although the signs of competition for solar PV customers are encouraging, a further period of setting a minimum R-FiT and monitoring is considered appropriate, to be confident that no consumer detriment would occur from deregulation. Therefore, it is appropriate to continue regulating the *minimum* R-FiT for a further two years. Doing so will provide the market some further stability and time to absorb the changes arising from the deregulation of the energy markets, the transition to the National Electricity Retail Law, the National Energy Customer Framework and the Commission's changes in setting the R-FiT.

In light of this uncertainty, the Commission considers that it is appropriate to continue regulating the R-FiT. Doing so, will provide more opportunity to compile additional evidence on the competitiveness of the electricity retail market, informing any future decision as to whether or not deregulation of the R-FiT is in the long-term interests of consumers.

However, the Commission has set the *minimum* R-FiT at a lower bound estimate of a reasonable range, to provide sufficient headroom for electricity retailers to compete above that floor and thus for the market to determine the efficient price.

In arriving at this decision, the Commission has considered the following areas where there is mixed evidence regarding the extent of competition among electricity retailers for PV customers.

- ▲ **Switching rates** – the extent to which customers elect to switch between market offers and between retailers is generally considered to be a key indicator of competition, and customer sophistication. Switching data provided by SA Power Networks (and analysed by AEMO) and electricity retailers both show that the switching rates for PV and non-PV customers are highly correlated, but that the switching rate for PV customers is substantially lower.

The correlation between the PV and non-PV switching rates supports the view that the PV market forms part of the broader electricity retail market, whereby a PV customer's decision to switch will be based on both the price of purchased electricity and the R-FiT amount. As the usage price of imported electricity is a major driver of a PV customer's bill, it seems logical that trends in PV and non-PV customer switching will follow each other, as both sets of customers generally face the same price movements.

Although the low switching rate for PV customers raises some doubts about the level of competition for those customers, it could also be due to the fact that PV customers that export energy will generally have lower bills than non-PV customers and, therefore, have less to gain from switching between market offers.

- ▲ **Incidence of Market Offers to PV customers** – PV customers continue to have limited access to the full range of products offered by electricity retailers in South Australia. At the end of June 2014, only eight of the 16 retailers (holding a collective market share of around 35%) were making their best-priced Market Offers available to PV customers. Origin Energy and Simply Energy (with a combined market share of around 29%) were the only major retailers to do so. By 31 October 2014, the number of retailers making their best priced offers available to PV customers had fallen to seven.

There are a number of possible reasons why retailers are not making their best-priced Market Offers available to PV customers and some of those reasons may not be indicative of a lack of competition for PV customers (e.g. there may be additional costs involved with serving these customers).

Incidence of minimum payments – by 30 June 2014, eight of the 13 electricity retailers selling to PV customers were offering the minimum R-FiT of 7.6 cents per kWh, which was reduced from 9.8 cents per kWh from 1 January 2014. However, not all of those eight retailers reduced their R-FiT offerings with immediate effect from 1 January 2014 when able to do so. Furthermore, by 31 October 2014, of the active retailers, only five (small) retailers revised their R-FiT offers down to the mandatory minimum.

One interpretation of this outcome may be that retailers are finding that the Commission's move to setting the R-FiT at the lower end of the reasonable range is providing them with the headroom to offer amounts above the regulated minimum.

Origin's submission³⁸ to the Draft Determination contended that having a regulated price can create a focal point around which retailers' offers will tend to converge, and can therefore provide a barrier to competition. Although it is possible that a regulated price can cause a lack of competitive behaviour and for firms to converge around the regulated price), there is insufficient evidence to believe it is occurring in the case of the R-FiT. Those retailers with the majority of the market (serving approximately 54% of customers) are not converging on the regulated minimum tariff and those that do converge have delayed their change despite having the opportunity to do so, when there was a decrease in the regulated price (Table 3-1). These conclusions, however, must be tempered by the very short timeframes to observe the competitiveness of retailers with respect to this new regime (setting the R-FiT at the minimum of the reasonable range) and then to confidently draw any conclusions regarding the pattern of convergence around the regulated price.

The Commission considers that, having deliberately set the lower bound price, convergence of retailers' offers at this level may be evidence of a lack of competition. By creating "headroom" for competition removes a barrier to competition and the evidence of retailers dropping their offers to the minimum price may provide an argument for regulating.

- ▲ ***Incidence and effectiveness of higher R-FiT payments*** – by 30 June 2014, four of the 13 retailers selling to PV customers were making R-FiT payments above the minimum value, with AGL SA being the only major electricity retailer to do so. The R-FiT payments offered by those four retailers (holding a collective market share of around 54%) were set at either 8.0 cents per kWh or 9.8 cents per kWh. By 31 October 2014, the number of retailers paying above the minimum value had risen to eight of 13, as four had not adjusted their R-FiTs downward after the repeal of the carbon tax.

However, analysis undertaken by the Commission demonstrates that the higher R-FiTs offered by five retailers were accompanied by higher electricity consumption (or usage) tariffs to those same customers. PV customers with an average consumption profile and smaller PV unit sizes will, therefore, be financially worse off by selecting these contracts because they are paying higher electricity usage prices, but not benefitting sufficiently from the higher R-FiTs, as they are unlikely to export material flows of PV electricity back to the grid. Customers with little consumption of imported electricity, and large PV export profiles may, however, be better off.

³⁸ See Origin Energy submission to the draft report, p.2, <http://www.escosa.sa.gov.au/library/2014111-RetailerFiTDraftPriceDeterminationSubmission-OriginEnergy.pdf>

This may suggest that regulation of the R-FiT is not having a material impact on PV customers, to the extent that retailers are generally using more expensive Market Offers to subsidise higher R-FiT amounts. Furthermore, higher R-FiT payments do not necessarily provide the best overall deal for PV customers — although Simply Energy³⁹ submitted that this demonstrates that the availability of choice in the marketplace is characteristic of a competitive market.

The Commission is, therefore, looking for evidence that the R-FiT will settle at a level that is a true reflection of value to the retailer. It is noted that prior to regulation (albeit in an immature market), the R-FiT fluctuated so greatly (see Table 1-2, page 12) that it did not provide much confidence that the R-FiT offered represented the true value to the retailer.

- ▲ ***Evidence arising from other jurisdictions*** – two of the three largest electricity retailers in New South Wales (AGL and EnergyAustralia) are currently offering voluntary R-FiT payments towards the higher end of the Independent Pricing and Regulatory Tribunal's (IPART) recommended non-binding benchmark range of the value of fed-in PV electricity (from 4.9 cents to 9.3 cents per kWh). The other retailer, Origin Energy, is offering a voluntary R-FiT at the lower end of the benchmark range.

However, the same three electricity retailers were only offering the minimum R-FiT (as determined by the Essential Services Commission in Victoria) despite having the flexibility to offer higher amounts.

AGL SA, EnergyAustralia and Origin Energy are the three biggest electricity retailers in South Australia. The Commission will continue to monitor the R-FiT landscape interstate to inform its view on regulation in South Australia.

³⁹ Simply Energy, submission to the Draft R-FiT Determination, p.3, available at <http://www.escosa.sa.gov.au/library/2014111-RetailerFiTDraftPriceDeterminationSubmission-SimplyEnergy.pdf>.

4. FORM AND NATURE OF REGULATION

4.1 Overview

Having reviewed the relevant factors under both the ESC Act and the Electricity Act, and after consideration of the points made in submissions, the Commission has formed the view that continuing regulation of the R-FiT is warranted. The next consideration is the appropriate form and nature of regulation of the R-FiT to be implemented.

As previously noted, under section 35A of the *Electricity Act*, the Commission has discretion as to whether or not it will make an R-FiT price determination at all. Having decided to make a price determination, the key aspects of the Commission's final decisions are:

- ▲ to make a two-year price determination – refer to section 4.2
- ▲ to set the methodology to calculate the fair and reasonable value of the R-FiT to set the *minimum* R-FiT value for 2015 and 2016 (or at any other time as may be required) using the methodology set out in section 4.3
- ▲ to set the *minimum* R-FiT value for 2015 at the lower band of the reasonable range of values, being 5.3 cents per kWh – refer to section 4.4, and
- ▲ to implement a formal price-monitoring regime – refer to section 4.6.

The reasons that underpin the Commission's Final Price Determination to implement these aspects of its determination are set out below.

4.2 The length of the R-FiT price determination period

In general, the shorter the regulatory period, the greater the flexibility available to adjust or modify regulatory settings in response to changing market circumstances. The drawback, however, is that reviews impose costs on all stakeholders that participate in the review process.

In contrast, the longer the regulatory period, the more time available to collect evidence and to assess the effectiveness of the regulatory settings in the market. More evidence and the opportunity to consider this evidence is prudent and, would assist the Commission in its deliberations of any future decision as to whether or not deregulation of the R-FiT is in the long-term interests of consumers.

Submissions to the Draft Determination suggested that, should further price regulation be required, one year would be preferable to two⁴⁰ so that deregulation could commence sooner.

⁴⁰ Energy Retailers Association of Australia (ERAA) submission to the Draft Determination, p.1, <http://www.escosa.sa.gov.au/library/2014111-RetailerFiTDraftPriceDeterminationSubmission-ERAA.pdf> and Lumo Energy, submission to the Draft Determination, p.1,

The Commission has considered this suggestion and, although recognising the argument has some merit, considers that the long-term interests of consumers is better served in this instance by maintaining a two year price determination period.

The key reasons underpinning the Commission's Final Price Determination to make a two-year R-FiT price determination are set out below.

- ▲ ***Minimising administrative and regulatory costs*** – conducting annual reviews to determine the need for ongoing regulation of the R-FiT imposes costs on the all stakeholders that participate in the review process, including electricity retailers who provide data to the reviews. On the basis that market dynamics are unlikely to materially change in the short term, undertaking annual competition reviews and public consultations offers few benefits above the costs incurred.

Conducting a review after two years strikes a more reasonable balance between the need to revisit the regulatory approach from time to time, and the desire to keep regulatory costs to a minimum.

- ▲ ***Effectiveness of the current approach*** – the current approach has only been in place for 11 months (from 1 January 2014, but with data only available for eight months) and the evidence to date regarding the effectiveness of the current approach is mixed. Making a two-year price determination provides an opportunity to gather more evidence and assess the effectiveness of this approach. At the same time, it allows the R-FiT value to be updated (at least for 2016), ensuring that it continues to remain reflective of wholesale electricity cost movements.

Simply Energy submitted that the Commission has had ample time to observe the effects of competition, as it has been regulating the R-FiT since January 2012⁴¹. In response, the Commission reiterates that an assessment of competition can best be made under the new approach adopted in January 2014, i.e. setting the R-FiT at the lower bound of a reasonable range of possible values.

Simply Energy also commented that the lack of Market Offers in excess of the minimum FiT is not evidence of a market failure but rather that the regulated FiT has been set well above the efficient market rate, taking into account the other tariff components that apply to PV and non-PV consumers⁴². In response to this concern, the Commission has applied its R-FiT forecasting methodology to actual market data during the first half of 2014, to determine the "actual" R-FiT during that period. The analysis confirms that the actual value to retailers has been above the regulated minimum.

<http://www.escosa.sa.gov.au/library/2014111-RetailerFiTDraftPriceDeterminationSubmission-LumoEnergy.pdf>

⁴¹ Submission to the Draft Determination from Simply Energy, p.4, <http://www.escosa.sa.gov.au/library/2014111-RetailerFiTDraftPriceDeterminationSubmission-SimplyEnergy.pdf>.

⁴² Submission to the Draft Determination from Simply Energy, p.1, <http://www.escosa.sa.gov.au/library/2014111-RetailerFiTDraftPriceDeterminationSubmission-SimplyEnergy.pdf>.

4.3 The fair and reasonable value of PV electricity to electricity retailers

Having decided that it will make a two-year R-FiT price determination, the next matter for determination is the level at which the R-FiT will be set.

Under section 35A(2a) of the Electricity Act, the Commission must have regard to the fair and reasonable value to an electricity retailer of electricity fed into the network by PV customers. It is important to emphasise that section 35A(2a) is focused on the value *to an electricity retailer*, not on the value to PV customers.

Simply Energy submitted that consumers would be better served with a non-mandatory benchmark range of R-FiT values rather than a specific value. However, the Act mandates that an amount (that is, a specific value) be determined.

4.3.1 Determining a fair and reasonable value

There are two major considerations in determining a fair and reasonable value to a retailer of exported PV output and these considerations are:

- ▲ determining the value by reference to retailers, and
- ▲ deriving a fair and reasonable value.

Determining value by reference to electricity retailers

The value should be focused on avoided direct costs, with the sources of value to an electricity retailer being measureable and ascribed to PV electricity. This direct beneficiary principle is consistent with the approach taken in the past, in quantifying a fair and reasonable R-FiT, and those adopted by economic regulators in other jurisdictions.

While there may be indirect benefits from PV electricity and the penetration of PV units to the overall market, the value of those indirect benefits is excluded from its consideration of the value to a retailer because they either cannot be specifically, nor reliably attributed to PV electricity.

Similarly, to the extent that there are any (distribution or transmission) network costs or benefits that may arise, those costs and benefits should be separately assessed as part of the AER's regulatory processes and passed through to consumers through amended network charges.

Accordingly, the Commission does not consider that it should have regard to system-wide benefits or costs of PV generation nor have regard to the incentives provided for consumers to install new PV units in determining a fair and reasonable value to a retailer of exported PV output.

Under this approach, the value of the R-FiT is substantially below the total retail price of electricity. The only costs that are avoidable by retailers as a result of exported PV generation, namely wholesale energy costs, comprise around 20-25 per cent of the total retail price. PV exports have no impact on the other 75-80 per cent of the retail cost of electricity, the largest component of which is network charges which comprise approximately 40-50 per cent of the retail price.

Deriving a fair and reasonable value

The Commission previously identified there are three benefits from solar PV generation that directly accrue to electricity retailers (when electricity generated from PV units is fed into the network), and these are summarised below:

- ▲ **Reduced wholesale electricity cost** – When a retailer receives exported PV electricity from its customers, the amount of electricity they need to purchase on the wholesale market is reduced. This is the most significant source of value to electricity retailers from exported PV electricity.
- ▲ **Avoided losses** – Retailers must purchase more wholesale electricity than they will sell to account for losses that occur when the electricity moves through the distribution network to reach the customer.⁴³ When the amount of wholesale electricity that a retailer needs to purchase is reduced due to exported PV electricity, the retailer also avoids incurring costs associated with electricity purchase, to offset distribution losses.
- ▲ **Avoided market and ancillary service fees** – Electricity retailers pay market ancillary fees based on the amount of wholesale electricity purchased at the regional reference node (RRN). When the amount of electricity that a retailer needs to buy on the wholesale market is reduced due to exported PV electricity, its liability for these market and ancillary fees is also reduced.

To quantify these direct benefits, the value to a retailer of exported PV electricity should be calculated by:

- ▲ **estimating** the wholesale spot price of electricity
- ▲ **weighted** by the net system load profile⁴⁴
- ▲ **adjusted** for distribution losses, and
- ▲ **adjusted** for market and ancillary service fees.

⁴³ The same rate of losses is applied to all wholesale electricity purchases by retailers regardless of their customer's proximity to the regional reference node (RRN).

⁴⁴ The net system load profile (NSLP) is the aggregated measurement of the electricity usage of all small customers on a half hourly basis. When PV units generate electricity, less is required from other generators and the NSLP is "reduced" by that amount. The reduction in the NSLP has two effects on the settlement of the wholesale electricity market. Firstly, the resulting NSLP-weighted price will be lower than it would be if PV systems were not in place (the price effect). Secondly, the total amount of electricity sold is reduced (the volume effect).

The Commission engaged ACIL Allen Consulting (**ACIL Allen**) to provide it with independent advice on the forecast expected market values to an electricity retailer of PV electricity fed into the distribution network. To minimise the potential for modelling uncertainty in adopting a single point estimate, ACIL Allen was also asked to provide a reasonable range of R-FiT values.

Details of the methodology used by ACIL Allen to determine the value of PV electricity are contained in its report to the Commission.⁴⁵ In summary, that methodology involves:

- ▲ forecasting wholesale spot prices of electricity, based on electricity demand forecasts (energy and peak demand) published by AEMO and using ACIL Allen's *PowerMark*™ national electricity market model
- ▲ projecting the net system load profile (**NSLP**) for South Australia, based on recent observations of the NSLP as published by AEMO and estimating the relationship between the NSLP load and the South Australian load using regression analysis
- ▲ projecting the total installed capacity and effective generation of PV units in South Australia
- ▲ combining the wholesale spot price forecasts with the projected NSLP to determine an NSLP-weighted spot price forecast
- ▲ adding the value of avoided network losses, obtained by analysing historic distribution loss factors for South Australia as published by AEMO, and
- ▲ deducting the cost of NEM market and ancillary service fees, based on the most recent actual fees published in AEMO's annual budget.

Issues raised in submissions

Suggestion for the use of forward contract market prices

In its submission to the Draft determination, Origin Energy submitted that the forward contract market would be a more appropriate basis for setting the R-FiT than a modelled price.

⁴⁶ ACIL Allen advise⁴⁷ that its method is based on modelled prices because these provide the granular resolution necessary for weighting and allows for analysis of the range of likely prices. A forward contract price is too "averaged" for this type of analysis.

⁴⁵ ACIL Allen Consulting, *The Fair and Reasonable Value of Exported PV – Describing ACIL Allen's Methodology for Estimating the Fair and Reasonable Value of Exported PV Output in South Australia*, 29 July 2014; available at <http://www.escosa.sa.gov.au/library/20141002-Electricity-SolarRetailerFiT-FairReasonableValueExportedPVReport-ACILAllen.pdf>.

⁴⁶ Origin Energy's submission to the Draft Determination, p.3, available at <http://www.escosa.sa.gov.au/library/111208-2011SolarFeedinTariff-DraftDecisionSubmission-OriginEnergy.pdf>.

⁴⁷ ACIL Allen's email to the Commission, 17 November 2014.

Suggestion for the use of the solar PV export profile to weight prices

Origin also questioned the weighting mechanism, in particular, the use of the NSLP. It also proposed that a more relevant measure would be to use the solar PV export profile. Origin noted that the approach used in New South Wales is that IPART sets an indicative range for feed-in prices by weighting wholesale prices with a solar export profile. Origin suggested that this is a more appropriate approach than that used by the Commission, which is to weight the wholesale price using the NSLP.

In the Commission's view, the two approaches are appropriate for the purposes for which they are used.

Use of the NSLP to weight prices

South Australia's R-FiT is determined in accordance with s.35A of the Electricity Act 1996; as previously noted, that section refers explicitly to the value of exported PV output *to a retailer*. The wholesale electricity market arrangements in South Australia are such that the price retailers pay for electricity supplied to small customers is, in fact, determined by the NSLP.

As discussed in ACIL's 2011 report, the use of the NSLP in settling the market in South Australia means that there is very little relationship between the value a retailer obtains from exported solar PV output and the time it is exported. In this respect, South Australia differs from NSW and Victoria, where the market is settled for residential customers using interval meter data for customers who have interval meters.

The methodology used on this occasion is the same as that described in ACIL's 2011 report aside from the detail of the way that the NSLP is projected. The Commission published ACIL's methodology for review in 2011⁴⁸ and various submissions were received. While none of the submissions explicitly endorsed the use of the NSLP as weights, no concerns were raised about this. In the submission it made at the time, Origin Energy described ACIL's analysis of the issues as "robust".⁴⁹

Use of the solar profile to weight prices

IPART uses a solar export profile to weight wholesale prices in NSW because its objective for the FiT is slightly different to the objective described in the South Australian Electricity Act. This is described by Frontier Economics which states that its estimate of the value of exported PV output is an estimate of *"the value that customers with small-scale solar PV would receive if they sold their exported energy into the wholesale spot market in the same way that large scheduled generators do."*⁵⁰

⁴⁸ See ACIL Tasman, The fair and reasonable value of exported PV output, December 2011, pp. 7-21, available at <http://www.escosa.sa.gov.au/library/120103-SolarFeedinTariff-SupplementaryReport-ACILTasman.pdf>

⁴⁹ Origin, Determination of Solar Feed-in Tariff Premium - Draft Determination Paper Submission, 7/12/2011, available at <http://www.escosa.sa.gov.au/library/111208-2011SolarFeedinTariff-DraftDecisionSubmission-OriginEnergy.pdf>.

⁵⁰ Frontier Economics, Market value of solar PV exports, June 2014, p. 11, available at http://www.ipart.nsw.gov.au/Home/Industries/Electricity/Reviews/Retail_Pricing/Solar_feed-

The IPART/Frontier Economics approach could be described as estimating the value *to a generator* of exported PV output. It could also be described as estimating the *economic value* of exported PV output. However, without interval meters that approach could not be described as an estimate of the value to a retailer in South Australia because it does not reflect the market arrangements in which retailers operate.

Therefore, while ACIL Allen has used a solar export profile for similar projects in Victoria (see, for example, its report to the Victorian Competition and Efficiency Commission's Power from the People Inquiry) it is not the approach recommended in South Australia.

The submission also expressed concern about the lack of transparency in the use of ACIL Allen's *PowerMark*™ spot price forecasts and preferred the use of forecasts which were open to scrutiny. In response to these points, the Commission notes that ACIL Allen's *PowerMark*™ has been used for several years and in multiple jurisdictions and has been widely accepted.

4.4 The minimum R-FiT value for 2015

Based on its analysis of the 2015 NSLP-weighted South Australian electricity wholesale spot prices from 471 scenarios, ACIL Allen's advice is that the reasonable range of expected 2015 R-FiT values is between 5.3 cents per kWh (90th percentile) and 7.4 cents per kWh (10th percentile).⁵¹

Table 4-1: Projected value of exported PV output in South Australia in 2015 and 2014 (exclusive of carbon impacts)

	PROJECTION FOR 2015 (c/kWh)	PROJECTION FOR 2014 (c/kWh)
90 th percentile	5.31	5.97
50 th percentile	5.60	7.39
10 th percentile	7.36	11.96

Source: ACIL Allen Consulting

The table above contrasts the projections for 2015 with those derived for 2014⁵² (on a similar carbon-exclusive basis). It is noteworthy that not only are the 2015 values lower across the board but that the reasonable range of values has narrowed considerably. In its report, ACIL Allen noted that:

[in tariffs 2014-2015/16 Jun 2014 - Consultant Report - Frontier Economics/Consultant Report - Frontier Economics - Market value of solar PV exports - June 2014](#)

⁵¹ ACIL Allen Consulting, *The Fair and Reasonable Value of Exported PV – Calendar Year 2015 Estimate from Market Modelling*, 29 July 2014.

⁵² ACIL Allen Consulting, *Estimated Value of Exported PV – Calendar Year 2014 – Update to include carbon price scenarios*, 7 November 2014; available at <http://www.escosa.sa.gov.au/library/20141002-Electricity-SolarRetailerFiT-EstimatedValuePVExportsReport-ACILAllen.pdf>.

The current projection of the wholesale spot price has decreased since that prepared in September 2013 due to a general decline in demand in the NEM. This has led to a situation where the supply demand balance in the NEM is relatively 'loose'. That is, there are rarely times when generation capacity is in short supply. As those are the times when higher prices are experienced the prices summarised here are lower than has been projected on previous occasions. Further, the repeal of the carbon price has downward pressure on wholesale spot electricity prices.

4.5 Setting a value at the lower bound of R-FiT values

In setting the minimum R-FiT value there is a risk that, if the determination of the minimum R-FiT value is higher than the fair and reasonable value to retailers, retailers may increase Standing Offer and Market Offer prices to subsidise the higher R-FiT payments, to the detriment of all South Australian electricity consumers or they may stop marketing to PV customers (if the market is not sufficiently competitive), or they may do both.

There is also the risk that if the determination is lower than the fair and reasonable value to retailers and the market for PV customers is not sufficiently competitive, PV customers will not realise that fair value.

Having considered the evidence before it, the Commission's determination is to continue setting the R-FiT at the lower bound of a reasonable range of pricing outcomes. Based on the advice of ACIL Allen, the Commission has determined that the minimum R-FiT value from 1 January 2015 should be set at 5.3 cents per kWh. This approach received some support in the submissions from Business SA, Lumo Energy and Simply Energy⁵³ if regulation were to continue – albeit, that they prefer deregulation.

In reaching its conclusion to continue setting a lower bound R-FiT value, the Commission has considered the following matters:

- ▲ **Facilitating competition** – the current approach provides the necessary room for retailers to compete above the minimum amount and for the market to determine the efficient price — while also providing price protection to PV customers. This is consistent with the Commission's long-standing position that setting prices is a second-best outcome, if markets are sufficiently competitive, and that there may be instances where it is necessary to provide sufficient headroom above a minimum price to facilitate competition and allow the market to determine the efficient price.

This is also supported by recent work carried out by the AEMC, where it noted that effective competitive markets are in the long-term interests of consumers, and that headroom should be provided in regulated energy retail prices, to facilitate competition.⁵⁴

⁵³ See the submissions from Business SA, p.1 and Lumo Energy, p.1 and Simply Energy, p.4.

⁵⁴ Australian Energy Market Commission, *Advice on Best Practice Retail Price Regulation Methodology – Final Advice*, September 2013, available at: <http://www.aemc.gov.au/Markets-Reviews-Advice/Advice-on-Best-Practice-Retail-Price-Regulation-Me>.

The previous approach, employed by the Commission prior to 1 January 2014, risked setting the R-FiT higher than the actual value to retailers.

- ▲ ***Effectiveness of the current approach*** – this new approach to setting the R-FiT has only been in place for a limited time—since 1 January 2014. With only six to seven months of data being collected for the Draft Determination and with little time having passed since, the evidence to date regarding the effectiveness of the current approach is encouraging. Retaining the current approach under a two-year price determination will allow this sector of the market further time to mature, provide an opportunity to observe the market behaviour of retailers unencumbered either way by the prospect of the decision to regulate or not, the opportunity to collect evidence and, thus, to assess the effectiveness of this approach through a subsequent review process.
- ▲ ***Materiality between setting the R-FiT at different percentile values*** – the financial impact to PV customers from an R-FiT set at the lower bound (currently set at a 90 per cent probability of exceedance) versus a 50 per cent probability of exceedance is negligible.⁵⁵ PV customers with an average consumption profile (those consuming 5,000 kWh annually) and with smaller than average PV systems, are unlikely to materially export to the grid and, therefore, would not receive any substantial R-FiT payments. Even for those customers with a larger-sized PV systems, the difference between setting the R-FiT at the 90th or 50th percentile values is not material (as detailed later, this would amount to an increase in payments to the consumer of approximately \$3 per annum under the scenarios modelled for 2015 – refer to the Customer Impact Analysis in chapter 5).

4.6 Price-monitoring regime

The Final Price Determination also includes a formal price-monitoring regime to gain evidence of the extent, if any, to which retailers might be paying amounts in excess of the regulated value during 2015.

In this instance, the Commission will rely generally on publicly available data for this element of the price determination, however, noting, that it may seek other information from retailers, if required.

The key design features of the Commission's price monitoring frameworks are set out below.

4.6.1 Monitoring of pricing outcomes

Articulation of the manner in which prices, cost and market outcomes are to be monitored is important for the transparency and accountability of a price-monitoring regime.

⁵⁵ As noted in Table 4-1 Table 4-1: Projected value of exported PV output in South Australia in 2015 and 2014 (exclusive of carbon impacts), the 90th and 50th percentiles, which form the reasonable range, is 5.3 cents per kWh and 5.6 cents per kWh, respectively.

Noting that retailers structure their offers differently (for example, the number of tariff blocks and consumption bands), the monitoring approach must be sufficiently flexible to accommodate such differences. Accordingly, the Commission is proposing to adopt a hypothetical annual bill approach, based upon low, medium and high consumption profiles, to monitor prices of PV offers.

This approach is to be based on examining how the different charges would translate into individual bills. Examining the sensitivity of the results to different assumptions about usage and the amount of electricity fed back to the distribution network, will allow for meaningful comparison of electricity charges and R-FiTs across different retailers. This approach is consistent with the notion that consumers are interested in the combination of low electricity usage tariffs and high R-FiTs that maximises the net return to that individual.

Table 4-2 below summarises the different export profiles that the Commission proposes to match against the three main consumption profiles.

Table 4-2: Assumed consumption and export profiles of solar PV customers

CONSUMPTION PROFILES	EXPORT PROFILES
Residential customers	
Low user (3,500 kWh per annum) Medium user (5,000 kWh per annum) High user (7,500 kWh per annum)	No amount exported (0 kWh per annum)
	Low amount exported (200 kWh per annum)
	Medium amount exported (400 kWh per annum)
	High amount exported (600 kWh per annum)
Small business customers	
Medium user (10,000 kWh per annum)	No amount exported (0 kWh per annum)
	Low amount exported (200 kWh per annum)
	Medium amount exported (400 kWh per annum)
	High amount exported (600 kWh per annum)

Under the hypothetical annual bill approach, the Commission's analysis would differentiate by retailer and separately identify the R-FiT values offered. The monitoring of pricing outcomes in the PV market is intended to complement the Commission's current role in publishing annual comparison reports of energy retail prices for small customers in South Australia. For example, informing the Commission on whether or not PV customers are receiving comparable discounts compared to non-PV customers.

In the main, the data to be used for the monitoring of pricing outcomes will be sourced from Energy Made Easy and retailers' pricing fact sheets.

4.6.2 Monitoring of non-pricing outcomes

The Commission will also monitor a set of non-pricing indicators. Conscious not to duplicate the energy retail market monitoring role performed by the AER, or to impose unnecessary regulatory burden on retailers, data for these indicators will generally be sourced from publicly available information. However, the Commission may seek additional information that is not publicly available from retailers, if required. Table 4-3 sets out the non-pricing indicators to be monitored under the Commission's price-monitoring regime.

Table 4-3: Indicators to be monitored

INDICATOR	COMMENT	DATA SOURCE
Innovation in solar offers	Examining whether PV customers have a good range of offers to choose from	Energy Made Easy and electricity retailers' websites
Number of solar offers	Examining whether PV customers have a good range of offers to choose from	Energy Made Easy and electricity retailers' websites
Number of retailers selling to PV customers	Examining whether PV customers have a good range of offers to choose from, and thereby putting pressure on retailers to compete for market share through competitive and innovative offers	Energy Made Easy and electricity retailers' websites
Terms and conditions of solar offers	Examining whether there are any impediments to customers switching between contracts and/or retailers (for example, exit fees and terms on contract)	Energy Made Easy and electricity retailers' websites
Level and accessibility of reliable information provided by retailers	Examining whether consumers have access to consistent and reliable information through different information sources to facilitate informed decision making (for example, pricing fact sheets or retailers' websites)	Energy Made Easy and electricity retailers' websites
Customer switching rates: PV and non-PV	Examining the switching rate of PV and non-PV customers from one electricity retailer to another and between offers with their incumbent retailer.	To be provided by electricity retailers to the Commission on a confidential basis

5. CUSTOMER IMPACT ANALYSIS

- ▲ *The greatest value for a customer from a PV system lies in the avoided cost of purchasing retail electricity, not in the R-FiT.*
- ▲ *For most PV customers, there would be minimal impact from a reduction in the R-FiT from 6.0 to 5.3 cents per kWh.*
- ▲ *A customer with average annual consumption of 5,000 kWh and a 4 kW solar system will experience a fall in R-FiT revenue of approximately \$8 per annum. The precise impacts will, however, depend on the consumption and export profile of each customer.*

The installation of PV systems in South Australia has grown strongly in recent years due to a combination of reasons including falling system costs, rising electricity prices, support from a range of government incentives, and the growing appeal of green energy.

To inform consumers of the impact of this Price Determination, the Commission has undertaken analysis to quantify the financial benefit of PV electricity and the impact on customers as a result of the reduction in the minimum R-FiT value.

The analysis set out in the following sections relies on several assumptions. The results of the analysis will change if these assumptions change.

In summary, modelling of the change of the R-FiT from 6.0 to 5.3 cents per kWh demonstrates the following:

- ▲ Reduced electricity bills are the most significant source of financial benefits associated with PV energy and that all PV customers benefit from these savings. Further, the size of these savings increases as the retail price of electricity increases.
- ▲ PV customers with smaller than average sized PV systems are unlikely to materially export to the grid and, therefore, would not receive any substantial R-FiT payments. Accordingly, those customers are not likely to be materially affected by the reduction.
- ▲ PV customers with an average consumption profile (5,000 kWh annually) and with larger-sized PV systems, may see a reduction amounting to around \$8 annually. However, retailers are not compelled to reduce their R-FiT offers to the minimum value set by the Commission.

5.1 Analysis of financial benefits associated with PV electricity

For PV consumers, there are two sources of ongoing financial benefit – reduced electricity bills, and potential revenue from FiTs. The Commission emphasises that the size of these benefits varies between PV customers, as they are influenced by a number of factors such as the size of the PV system, the electricity consumption tariffs, the pattern of electricity consumption and the level of exported energy from the PV system.

Electricity bill savings

The generation output of a PV unit is a substitute for the need to purchase electricity. When the electricity generated from a PV unit is used to meet household consumption, the PV customer can either avoid (or reduce) the amount of electricity that they import from the grid and, therefore, avoid (or reduce) paying retail electricity prices. At the end of June 2014, the average retail electricity usage price in South Australia was around 30 cents per kWh (GST exclusive).

Modelling shows that the magnitude of electricity bill savings varies between PV customers, ranging from \$460 (for a 1 kW PV system) to \$1,840 (for PV customers consuming 7,500 kWh annually and with a 4 kW PV system). Figure 5-1 illustrates the potential savings that PV customers of different consumption profiles and PV system sizes can expect to realise.

Further, the magnitude of those savings will increase in line with any future increases in the retail electricity consumption tariffs, for example, a five percent increase in the retail electricity tariff will lead to a corresponding five per cent increase in savings.

Potential revenue from feed-in tariffs

When electricity generated from a PV unit exceeds that required to meet household consumption, the excess PV electricity is fed back into the grid. Under the FiT scheme, each kWh exported (measured quarterly) entitles a PV customer to receive R-FiT payments, subject to various limitations and qualifications set out in the Electricity Act. For most PV customers, revenues from R-FiT payments are smaller and less certain.

Modelling shows that most PV customers are unlikely to earn any substantial revenue from R-FiT payments on the basis that most of the generated PV electricity would be consumed at the premises, leaving little or none available to be fed back into the grid. Figure 5-1 shows that it is unlikely that PV customers with low to medium consumption profiles would export power and it would be unlikely that they receive any R-FiT payments. Generally, only those with larger-sized PV units, with low to average consumption, would receive R-FiT payments. However, the value of those payments is still significantly lower than the savings on their electricity bills.

5.2 Analysis of customer impact as a result of the reduction in the minimum R-FiT value

Using the same set of modelling assumptions, the Commission has sought to examine the impact on PV customers, as a result of the Final Price Determination to reduce the minimum R-FiT value from 6.0 cents per kWh to 5.3 cents per kWh.

Figure 5-2 indicates that PV customers with an average consumption profile (those consuming 5,000 kWh annually), and with smaller than average PV systems, are unlikely to be affected by the reduction in the minimum R-FiT value because they do not export any PV electricity back into the grid. For those customers with larger-sized (4 kW) PV systems, and who do export PV electricity back into the grid, the impact of the reduction in minimum R-FiT value amounts to around \$8 annually.

Figure 5-1: Analysis of financial benefits associated with PV energy



Note: Average annual production capacity for different PV unit sizes is based on data published by the Clean Energy Council.⁵⁶

Other assumptions include an average retail electricity usage price of 30 cents per kWh and an R-FiT value of 5.3 cents per kWh (both GST exclusive).

Furthermore, it is assumed that PV generation and consumption of electricity coincide.

⁵⁶ Clean Energy Council, *Consumer guide to buying household solar panels (photovoltaic panels)*, 19 December 2012, available at <https://www.cleanenergycouncil.org.au/technologies/solar-pv.html>.

Figure 5-2: Analysis of customer impact as a result of the reduction in the minimum R-FiT value



Note: Average annual production capacity for different PV unit sizes is based on data published by the Clean Energy Council.⁵⁷

Other assumptions include an average retail electricity usage price of 30 cents per kWh and an R-FiT value of 5.3 cents per kWh (both GST exclusive). Furthermore, it is assumed that PV generation and consumption of electricity coincide.

⁵⁷ Clean Energy Council, *Consumer guide to buying household solar panels (photovoltaic panels)*, 19 December 2012, available at <https://www.cleanenergycouncil.org.au/technologies/solar-pv.html>.

6. IMPLEMENTATION OF FINAL PRICE DETERMINATION

The Commission is making a two-year Price Determination, setting a *minimum* R-FiT value of 5.3 cents per kWh to apply from 1 January 2015. The R-FiT value itself will be updated annually, using a pre-determined methodology and set at the lower bound of a reasonable range of pricing outcomes, if it varies by more than 10 per cent from this pricing decision. This ensures that the R-FiT reflects wholesale electricity cost movements each year and continues to provide sufficient room for retailers to compete above that “floor” price.

If the forecast R-FiT value for 2016 is within $\pm 10\%$ of the 2015 value (5.3 cents per kWh), the minimum R-FiT will remain unchanged as the administrative costs involved in changing the R-FiT are likely to outweigh any benefit from reducing the minimum value by such a small amount. Those costs involve retailer compliance costs, the Commission’s costs of communicating the change and potential for confusion among PV customers. It is recognised that the decision on the value of $\pm 10\%$ is a matter of judgement. That value has been chosen having regard to the minimum nature of the R-FiT and the scope for forecast error that exists in its calculation.

As well as setting the *minimum* R-FiT value, the Price Determination also provides for the implementation of a formal price-monitoring regime to allow the Commission to monitor the extent of competition of PV customers and the incidence of FiT payments above the mandatory *minimum* R-FiT value over the next regulatory period. Evidence provided through that process will inform any future decision as to whether or not a further price determination is required for the period beyond December 2016.

APPENDIX 1: SUMMARY OF R-FIT SCHEMES IN OTHER JURISDICTIONS

New South Wales

In New South Wales, electricity retailers are not required to make any mandatory R-FiT equivalent payments. Under the scheme in that State, the Independent Pricing and Regulatory Tribunal (IPART) publishes an annual benchmark range for the R-FiT to provide guidance on the likely value of PV electricity and to assist PV customers in assessing electricity retailers' offers. IPART determined that a subsidy-free feed-in tariff is in the range of 4.9 cents per kWh to 9.3 cents per kWh for 2014/15.⁵⁸

There were eleven retailers operating in NSW during the third quarter of 2013/14. AGL, EnergyAustralia and Origin Energy held market shares (of the small customer market) of 21%, 31% and 39% respectively. The remaining eight retailers had a combined market share of around 9%.⁵⁹

The incidence and level of R-FiT payments offered to PV customers in NSW at 30 October 2014 is set out in Table 6-1.⁶⁰ Of the eleven retailers operating in New South Wales at the time:

- ▲ four retailers offered no voluntary R-FiT payments
- ▲ eight retailers offered voluntary R-FiT payments and, of those:
 - seven retailers offers were within IPART's recommended benchmark range and two retailers (Click Energy and Sanctuary Energy) offers were above the benchmark range.
 - AGL's offers were at the upper bound of IPART's benchmark range whereas the offers from Origin Energy and EnergyAustralia were at the lower bound of the benchmark range.
 - Among the smaller retailers, Powerdirect and Diamond Energy offered voluntary R-FiTs at the upper bound of the benchmark range.

⁵⁸ Independent Pricing and Regulatory Tribunal, *Solar feed-in tariffs: The subsidy-free value of electricity from small-scale solar PV units from 1 July 2014 – Final Report*, June 2014; available at http://www.ipart.nsw.gov.au/Home/Industries/Electricity/Reviews/Retail_Pricing/Solar_feed-in_tariffs_201415/16_Jun_2014_-_Final_Report/Final_Report_-_Solar_feed-in_tariffs_-_The_subsidy-free_value_of_electricity_from_small-scale_solar_PV_units_from_1_July_2014.

⁵⁹ Market share data has been sourced from the Australian Energy Regulator. AER provided market share data individually for three major retailers and aggregate market share for all other retailers.

⁶⁰ The figures in Table 6-1 were sourced from the Energy Made Easy website, excludes GST and includes all conditional and non-conditional discounts for a typical residential customer residing in the Ausgrid distribution zone and who consumes 5,000 kWh per annum (excluding off-peak and green energy).

- ▲ Table 6-1 shows that five of the eight retailers offering a voluntary R-FiT were making their best-priced generally available Market Offers available to PV customers. It should be noted that retailers who offered R-FiTs, either closer to the upper bound of IPART's recommended benchmark range or higher, were not making their best priced offer available to PV customers — with the exception of Sanctuary Energy. It was observed, however, that Sanctuary Energy's best priced Market Offer was the most expensive of all of the best-priced Market Offers.
- ▲ It would appear that retailers in NSW are actively competing for PV customers, since several retailers are either offering R-FiTs either above or at the upper bound of IPART's range. However on closer inspection, those retailers were not making their best-priced Market Offers available to PV customers. This would suggest that those retailers may be subsidising the higher R-FiT payments by limiting PV customers to more expensive Market Offers.
- ▲ Table 6-1 also indicates that retailers offering R-FiTs, towards the lower bound of IPART's benchmark range or not at all, were making their best priced offers available to PV customers. Although NSW's largest retailer, Origin Energy (with a market share of 39%) was offering an R-FiT at the lower end of IPART's range, it was allowing PV customers access to its best-priced Market Offer.

Table 6-1: Price based comparison of residential electricity offers in New South Wales (at 31 July 2014) (GST exclusive)

	BEST-PRICED MARKET OFFER			BEST-PRICED MARKET OFFER FOR PV CUSTOMERS			DIFFERENCE
	Product Name	Estimated Annual Cost	Available to PV Customers?	Product Name	Estimated Annual Cost	R-FIT (c/kWh)	in cost between contracts
AGL	Select 12% New South Wales residential electricity market offer	\$1,296	✗	Advantage 7% New South Wales residential electricity market offer	\$1,350	8	\$81
Click Energy	Click Platinum - 17% direct – debit only pay-on-time discount, monthly billing, no exit fees - Any Time Tariff - Domestic	\$1,324	✗	Click Shine - 10 cent Click-funded FIT, 7% pay-on-time discount, monthly billing, no exit fees - Any Time Tariff - Domestic	\$1,484	10	\$160
Dodo Power and Gas	Ausgrid Res No Term Market Offer (E2EAR-MAT1)	\$1,244	✓	Ausgrid Res No Term Market Offer (E2EAR-MAT1)	\$1,244	n/a	-
Diamond Energy	Diamond Solar	\$1,471	✓	Diamond Solar	1,471	8	-
EnergyAustralia	Flexi Saver Home - Peak Only (Online)	\$1,252	✗	Everyday Saver Home - Peak Only (Online)	\$1,332	5.1	\$80
Lumo Energy	Lumo Advantage	\$1,320	✓	Lumo Advantage	\$1,320	5.5	-
Momentum Energy	Momentum SmilePower Direct Debit GD (Anytime)	\$1,386	✗	Standing Offer	\$1,459	n/a	\$73
Origin Energy	eSaver up to 16% off electricity usage discount + \$50 credit	\$1,177	✓	eSaver up to 16% off electricity usage discount + \$50 credit	\$1,177	6	-
Powerdirect	Powerdirect 13% New South Wales residential electricity market offer	\$1,315	✗	Powerdirect 7% New South Wales residential electricity market offer	\$1,388	7.7	\$73
QEnergy	Home Your Way Single Rate	\$1,428	✗	n/a	n/a	n/a	n/a
Red Energy	Living Energy Saver - Residential	\$1,250	✓	Living Energy Saver - Residential	\$1,250	5	-
Sanctuary Energy	Brightway Electricity Offer	\$1,956	✓	Brightway Electricity Offer	\$1,956	30	-
Simply Energy	NSW Aus Simply Guaranteed 10 Peak only	\$1,237	✗	n/a	n/a	n/a	n/a

Queensland

At present, there is no mandatory R-FiT equivalent regime operating in Queensland (although there is a now-closed D-FiT equivalent regime).

The incidence and level of R-FiTs offered to PV customers in Queensland at 31 July 2014 is set out in Table 6-2.⁶¹ It shows that six out of thirteen electricity retailers were offering voluntary R-FiTs but only three of those retailers were making their best-priced Market Offers available to PV customers. Five other retailers in Queensland, DoDo Power and Gas, Diamond Energy, Integral Energy, QEnergy and Simply Energy, were not featured on the QCA's Price Comparator tool.

Evidence of competition for PV customers in Queensland remains mixed. On the one hand, electricity retailers are competing for PV customers by making voluntary R-FiT payments in the absence of a regulatory obligation to do so. On the other hand, pricing information sourced from the QCA's Price Comparator tool indicates that the R-FiT payments on offer converged to a common value.

A final matter to note is that the Queensland Government has committed to provide ongoing access to a regulated R-FiT for regional Queensland PV customers on the basis that there remains insufficient competition in regional Queensland. In a report to the Queensland Government, the QCA recommended that an R-FiT value of 6.5 cents per kWh should apply in regional Queensland from 1 July 2014.⁶²

It appears that other Queensland PV customers need to approach retailers directly to secure a competitive R-FiT.

⁶¹ The figures in Table 6-2 were sourced from the Price Comparator tool operated by the Queensland Competition Authority. It is exclusive of GST but inclusive of all conditional and non-conditional discounts for a typical residential customer consuming 5,000 kWh per annum (excluding off-peak).

⁶² Queensland Competition Authority, *Solar feed-in tariff for regional Queensland for 2014-15, Final Report*, May 2014; available at <http://www.qca.org.au/getattachment/14240544-981d-43b6-9181-72d4617e522e/Final-Report-Feed-in-tariff-for-regional-Queenslan.aspx>.

Table 6-2: Price based comparison of residential electricity offers in Queensland (at 31 July 2014) (GST exclusive)

	BEST-PRICED MARKET OFFER			BEST-PRICED MARKET OFFER FOR PV CUSTOMERS			DIFFERENCE
	Product Name	Estimated Annual Cost	Available to PV Customers?	Product Name	Estimated Annual Cost	R-FIT (c/kWh)	in cost between contracts
AGL	Select 5	\$1,606	✗	Advantage	\$1,705	8	\$98
Click Energy	Click Shine Budget Monthly	\$1,522	✓	Click Shine Budget Monthly	\$1,522	6	-
EnergyAustralia	Flexi Saver- Home (online offer)	\$1,565	✗	Everyday Saver - Home	\$1,621	6	-\$56
Lumo Energy	Lumo Advantage	\$1,494	✓	Lumo Advantage	\$1,494	6	-
Origin Energy	eSaver	\$1,593	✓	eSaver	\$1,593	6	-
Powerdirect	Powerdirect 10% discount	\$1,565	✗	Powerdirect Solar	\$1,705	6	\$140

Victoria

All electricity retailers in Victoria are required to offer a minimum R-FiT of 8 cents per kWh for 2014, moving to 6.2 cents per kWh for 2015 (as determined by the Essential Services Commission of Victoria).

The Victorian R-FiT does not need to be applied to every offer and retailers have the discretion to offer different terms and conditions; however, if an offer (Market or Standing) is open to PV customers, a retailer must pay a minimum R-FiT of 8 cents per kWh to those customers (as is the case in South Australia).

The incidence and level of R-FiT payments offered to PV customers in Victoria is set out in Table 6-3 below.⁶³ At 31 July 2014, thirteen out of eighteen electricity retailers were making voluntary R-FiT payments. Further, all thirteen retailers were making their best-priced Market Offers available to PV customers but only one retailer was offering an R-FiT above the minimum value.

In Victoria, energy retail prices are deregulated but the Government still requires the Essential Services Commission of Victoria to set a mandatory R-FiT.

Unlike in other jurisdictions, both PV and non-PV customers receive the best priced Market Offers from retailers.

⁶³ The figures in Table 6-3 were sourced from price comparator tool Your Choice operated by the Victorian Government, excludes GST and includes all conditional and non-conditional discounts for a typical residential customer consuming 5,000 kWh per annum (excluding off-peak and green energy).

Table 6-3: Price based comparison of residential electricity offers in Victoria (at 31 July 2014) (GST exclusive)

	BEST-PRICED MARKET OFFER			BEST-PRICED MARKET OFFER FOR PV CUSTOMERS			DIFFERENCE
	Product Name	Estimated Annual Cost	Available to PV Customers?	Product Name	Estimated Annual Cost	R-FIT (c/kWh)	in cost between contracts
AGL	Advantage 15% Victoria residential electricity market offer	\$1,391	✓	Advantage 15% Victoria residential electricity market offer	\$1,391	8	-
Alinta Energy	Standing offer	\$1,455	✓	Standing offer	\$1,455	8	-
Click Energy	Click Shine- Monthly billing, no exit fees-Peak Only	\$1,418	✓	Click Shine- Monthly billing, no exit fees-Peak Only	\$1,418	10	-
Commander Power and gas	Citipower Commander Residential Offer (Single Rate) (CE3CPR-MAT1 + PF1/TF1/GF1)	\$1,309	✓	Citipower Commander Residential Offer (Single Rate) (CE3CPR-MAT1 + PF1/TF1/GF1)	\$1,309	8	-
Diamond Energy	n/a	n/a	n/a	Diamond Solar	\$1,264	8	-
Dodo Power & Gas	Citipower Res No Term Market Offer(Common Form Flex Plan & General FIT) (E3CPR-MCFP1GF1)	\$1,255	✓	Citipower Res No Term Market Offer(Common Form Flex Plan & General FIT) (E3CPR-MCFP1GF1)	\$1,255	8	-
EnergyAustralia	Everyday Saver Home-Peak Only	\$1,264	✓	Everyday Saver Home-Peak Only	\$1,264	8	-
Momentum	Momentum SmilePower GD	\$1,091	✓	Momentum SmilePower GD	\$1,091	8	-
Lumo Energy	Lumo Advantage	\$1,127	✓	Lumo Advantage	\$1,127	8	-
Powershop Australia	n/a	n/a	n/a	Solar Saver	\$1,273	8	-
Origin Energy	ESaver up to 22% discount on electricity usage charges (Single Rate)	\$1,209	✓	ESaver up to 22% discount on electricity usage charges (Single Rate)	\$1,209	8	-
Powerdirect	Powerdirect 26% Victoria residential electricity market offer	\$1,182	✓	Powerdirect 26% Victoria residential electricity market offer	\$1,182	8	-
Simply Energy	VIC Simply Save 25 Direct Debit/eBilling (Solar)	\$1,073	✓	VIC Simply Save 25 Direct Debit/eBilling (Solar)	\$1,073	8	-



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