

AUGUST 2013



TASMANIAN ENERGY REFORM

Feed-in Tariffs: Transition to Full Retail Competition
– Final Position Paper

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Tasmanian Energy Reform

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GLOSSARY

COAG	Council of Australian Governments
ESAA	Energy Supply Association of Australia
ESCoSA	Essential Services Commission of South Australia
FiT	feed-in tariff
FRC	Full retail competition
IPART	Independent Pricing and Regulatory Tribunal
kWh	kilowatt hours
LRET	Large renewable energy target
MWh	megawatt hours
NEM	National Electricity Market
NMBS	Net Metering Buyback Scheme
PV	photovoltaic
QCA	Queensland Competition Authority
RET	Renewable energy target
SRES	Small-scale Renewable Energy Scheme
STCs	Small-scale Technology Certificates
VCEC	Victorian Competition and Efficiency Commission

I. INTRODUCTION

The Tasmanian Government is reforming the Tasmanian electricity supply industry to introduce choice in electricity retailing for all customers and to simplify and increase the efficiency of the Government's portfolio of electricity businesses.

The Government has four high-level policy objectives for its electricity reform package:

1. Lowest sustainable electricity bills.
2. Long-term safe, secure and reliable supplies of electricity.
3. Maximise the value of Tasmania's low carbon advantage and the brand benefits of clean Tasmanian electricity.
4. Financially viable state-owned electricity businesses that run efficiently and effectively and maximise the overall economic benefit to Tasmania.

In May 2012, the Government announced the following key features of the reform package:

- the introduction of full retail competition (FRC) from 1 January 2014, facilitated by the sale of Aurora Energy's customers to private sector retailers;
- independent regulation of Hydro Tasmania's wholesale market activities by the Tasmanian Economic Regulator; and
- the integration of Aurora Energy's distribution network and Transend Network's transmission network to form a single combined network business.

Key legislation required to implement these major elements of reform was passed by both Houses of Parliament in April this year.

With the introduction of FRC on 1 January 2014 and the exit of Aurora Energy from the Tasmanian electricity retail market, the Tasmanian Government must also put in place new feed-in tariff (FiT) arrangements to ensure that existing and new customers who export electricity to the grid will receive a fair and reasonable rate for this energy through the transition period and into the future.

On 16 May 2013, the Minister for Energy and Resources released an Issues Paper that described the current FiT arrangements (including how they work and the costs) and the arrangements in other jurisdictions. It also outlined a set of issues the Government was considering in order to determine future FiT arrangements, which would apply from 1 January 2014, and supporting transitional arrangements for existing customers.

While this Final Position Paper reproduces in large part the contents of the Issues Paper, it has been amended and updated to capture key matters raised during the consultation process and reflects adjustments to policy that have subsequently been made in response to submissions.

A companion document summarising in more detail a range of individual matters raised during the consultation process – and the Government's response to these issues – is included as an appendix to this Position Paper.

I.1 Response to consultation

The Government has made several important changes to the proposed FiT arrangements under FRC as a result of feedback provided during the consultation period, which are summarised briefly below.

The main change is the extension of the duration of the period during which existing customers will continue to receive their current FiT – which will now be known as the 'legacy' FiT – from three to five years, until **1 January 2019**.

It was revealed during consultation that a significant number of customers have made capital investments - and in some cases taken out finance packages - in the belief that their current feed-in tariff rate is guaranteed through their five-year connection contract with Aurora Energy. The reality, however, is that the five-year connection contract deals only with the technical specifications of the customer's solar or other micro renewable generation systems, and does not relate to the FiT rate that is to be paid to the customer by Aurora's retail division.

Notwithstanding this, a number of submissions indicated that some solar installers focussed on selling solar PV systems with finance packages to retirees and pensioners may have adopted sales strategies that appear to have represented that the five-year connection agreement included a guaranteed '1:1' rate for at least this period.

1.2 A fair and reasonable tariff

Another key change is a requirement that all electricity retailers entering the market to retail to small customers in Tasmania must offer the 'fair and reasonable' FiT. The Issues Paper had initially proposed that only the purchasing 'safety net' retailers be required to offer a FiT, consistent with the approach for retail price regulation. Following consultation, the Government has determined that it is more consistent with both the COAG FiT principles and practices in other jurisdictions that the requirement to offer the FiT be placed equally on all retailers operating in Tasmania.

Further, all existing feed-in tariff customers will retain their eligibility to receive the legacy FiT regardless of their contract type (e.g. where they move to a new market offer under FRC). It had initially been proposed that customers would only remain eligible for the legacy rate where they remained on their current standard retail contract. This would give customers with distributed generation systems an additional level of choice without having to worry about losing access to the legacy FiT.

1.3 Off-setting consumption

In response to stakeholder feedback, the Government has also determined as a matter of policy that, commencing as soon as possible, new small customers who connect a distributed generation system to the network will have a meter that provides the customer with the option of off-setting all their instantaneous on-site consumption before any electricity is exported. The Government is currently working with Aurora Energy to investigate and implement this measure.

Currently, the way in which all customers' meters are configured means that electricity generated by a customer on-site can only be used to off-set consumption under the light and power or general supply tariff, before the installation starts to export 'excess' electricity to the grid. This means that customers cannot use their systems to off-set consumption under other additional tariffs, including hot water and heating (Tariffs 41 and 42).

Given that the NMBS currently offers a '1:1' net buyback at the highest tariff (light and power/general supply), existing customers actually benefit from being able to export at this rate, rather than receiving a lower effective rate via an off-set to their consumption under their other tariffs. This will continue to be the case for so long as an existing customer is eligible to receive the legacy FiT.

However, new customers who will not be eligible for the legacy rate would benefit from the ability to use their on-site generation to off-set their other retail tariffs before their system begins exporting to the grid. This is because the new transitional and fair and reasonable FiTs will be lower than all of the retail tariffs under which a customer consumes electricity. Where existing customers cease to be eligible for the legacy 1:1 rate, they will be given the option of paying for a meter re-configuration (where this is technically possible) or meter replacement to enable them to off-set all the electricity they produce against more of their of their total energy consumption.

2. EXECUTIVE SUMMARY

Since July 2000, Aurora Energy has voluntarily offered the 'Net Metering Buyback Scheme' (NMBS) to residential and business customers who use solar panels and other types of small-scale, renewable generation under 10kW (e.g. micro hydro installations) to feed excess electricity into the grid.

The NMBS offers these customers a 'one-for-one' (1:1) FiT at the relevant regulated light-and-power tariff (for residential customers) or general supply tariff (for small business customers) for their net exported energy. The NMBS is based on net metering against a customer's light and power (residential customers) or general supply (small business) tariff, which means that customers only pay for the electricity they use under these tariffs over and above what their power system produces. If the amount of electricity a customer produces exceeds the amount of electricity they use at any given moment in time under the relevant tariff, the difference – or 'net export' to the grid – is credited to the customers' quarterly account at the same rate that the customer purchases electricity from Aurora.

A significant number of Tasmanian electricity customers, particularly in recent years, have installed distributed generation systems and currently access the scheme. There are now over 15 000 grid-connected customers. This is up from 12 500, which was the most current figure available when the Issues Paper was released. This number continues to grow at an average of 600 installations per month, driven in large part by the falling price of solar panels and customers' desire to reduce their power bills.

Elsewhere across the country, all mainland Australian state and territory governments have mandated FiTs in order to encourage more customers to install distributed generation systems. However, most jurisdictions have now either closed, or are in the process of phasing out, 'premium' FiT arrangements after higher than expected subscription rates, and the growing cost to government and/or electricity customers.

There are a number of important issues that have been considered in developing the new FiT arrangements that will apply under a competitive retail electricity market in Tasmania. These issues are summarised below:

2.1 Providing certainty for customers, industry and market participants

Aurora Energy offers the NMBS to its small customers on a voluntary basis only. Unlike other Australian jurisdictions, there are no, and have never been any, legislative, regulatory or contractual¹ arrangements in Tasmania that require Aurora Energy to pay these customers a set rate for the energy they export for a defined term.

With the commencement of full retail competition and the entry of new private sector retailers from 1 January 2014, these customers will no longer have access to a guaranteed FiT for their exported energy once Aurora Energy exits the market, unless the Government acts to introduce some form of mandated scheme.

It is important that these customers, as well as industry and other market participants, are provided with clarity and certainty with regard to the regulatory arrangements, including for FiTs, that will apply in Tasmania in the future.

¹ Aurora Energy has power purchase agreements with a number of customers with embedded generation systems larger than 10kW, but these are negotiated on a case-by-case basis outside of the NMBS.

To provide this certainty, the Government will introduce legislation that will:

- require the Tasmanian Economic Regulator to determine a new 'fair and reasonable' FiT ahead of FRC commencement, via a process that will be subject to consultation. The FiT will be reviewed annually by the Regulator; and
- mandate that from 1 January 2014 all authorised retailers must pay the new fair and reasonable FiT determined by the Regulator on every kWh of net exported electricity produced by residential and small business customers (less than 150MWh annual consumption) on mainland Tasmania who have a grid-connected renewable generation system of up to 10kW capacity.

The legislatively mandated FiT will act only as a 'safety net' for small customers to ensure that they can always access a fair price for their exported energy. A number of retailers in other jurisdictions already offer feed-in tariffs on a voluntary basis – often on top of minimum government-mandated rates – to attract solar customers.

2.2 Managing the transition to new FiT arrangements

The introduction of FRC and Aurora's exit from the retail electricity market will necessitate the closure of the current NMBS offered voluntarily by Aurora Energy in order to establish the new arrangements.

The Government recognises that this is an issue of concern for many existing customers and industry participants, and is committed to establishing processes to manage the transition to the new FiT arrangements that will apply under the competitive market environment.

The transition arrangements are as follows:

- Existing feed-in tariff arrangements under Aurora Energy's NMBS will be closed to new customers at midnight (AEST) on 30 August 2013.
- All existing NMBS customers at this date will continue to receive their current feed-in tariff (the 'legacy' feed-in tariff) until 1 January 2019, subject to maintaining an electricity account in their name (or their spouse's name) at their current premises. Customers who upgrade the capacity of their systems will cease to be eligible for the legacy rate on all of their generating capacity if that application is made after 30 August 2013.
- The legacy rate will be:
 - for residential customers, the tariff 31 rate as at 30 August 2013;
 - for business customers, the tariff 22 rate as at 30 August 2013.The legacy rate will be fixed for the five-year period to 1 January 2019.
- Customers who have not yet installed or connected a system will have until midnight (AEST) on 30 August 2013 to lodge with Aurora Energy a completed application form for embedded generation to be eligible to be included as a legacy NMBS customer. **This application must include evidence of a signed contract with, and a deposit paid to, an installer.** These customers will then have until 30 August 2014 to install and connect their systems to remain eligible for the legacy feed-in tariff.
- Customers applying to install an eligible embedded generation system from 31 August 2013 will be entitled to a 'transitional' feed-in tariff of 8c per kWh, which will be paid by Aurora Energy to customers until it exits the market on 31 December 2013. The payment of the 'transitional' feed-in tariff will be subject to the same eligibility criteria, terms and conditions as the existing Net Metering Buyback Scheme.

- The Government will introduce legislation in the 2013 Spring Session of Parliament to give effect to the new feed-in tariff arrangements, including establishing the relevant rights and obligations for retailers, the state-owned network business and customers.
- The Tasmanian Economic Regulator will be required, under the new legislation, to complete an investigation by the end of 2013 to determine the new 'fair and reasonable' feed-in tariff that will apply from 1 January 2014. The Regulator's determination will be subject to appropriate consultation and will be reviewed annually.
- All retailers operating in Tasmania from 1 January 2014 will be required by law to offer this feed-in tariff as a minimum to all eligible small customers.
- Where customers are eligible for the legacy feed-in tariff, retailers will be required to pay these customers at this rate, but will also be entitled to recover any amount over and above the 'fair and reasonable' rate from the state-owned network business. The Government will issue a direction that the network business must not seek a regulatory pass-through to recover the cost imposed by this proposed legislative obligation.
- The network business will retain and manage the list of customers who are eligible to receive the legacy feed-in tariff over the transition period, and will communicate with retailers in this regard. Legislation will establish a fair and transparent process for resolving any disputes with regard to eligibility for the legacy tariff.

Generally, it is preferable for non-commercial activities of Government businesses to be delivered as a community service obligation and paid for by the level of government that seeks to provide the service. However, in this instance, the legacy costs of the NMBS arise from a commercial decision taken by Aurora Energy and so responsibility for those costs will pass to the merged network business. This is part of the expectation that the new merged business should take responsibility for previous decisions of the individual businesses. In this regard, assuming responsibility for the NMBS costs is not substantially different to other decisions of the current network businesses that will be inherited by the merged network business and which will affect its financial position, such as network pricing strategies.

Additional detail relating to the closure of the existing NMBS scheme – and customers' eligibility to receive the 'legacy' FiT – is available on the Energy Reform website at www.electricity.tas.gov.au

2.3 Robust and transparent process

In determining a fair and reasonable FiT rate ahead of the commencement of FRC, the Regulator will be required to follow a robust process that will involve appropriate consultation. In order to expedite the process for establishing the new FiT, and given that legislation will need to be drafted and debated in the Parliament, the Government is directing the Tasmanian Economic Regulator (using existing powers under the *Electricity Supply Industry Act 1995*) to commence work in advance of the introduction of this legislation. This work will then be used as the basis for making a final FiT determination under the new legislation, once it is passed.

The Terms of Reference for the Regulator's investigation are provided at **Attachment B**.

2.4 Fairness, equity and consistency

The Government is committed to future FiT arrangements that strike a balance between the fair and equitable treatment of customers who have invested in the installation of renewable generation systems under Aurora Energy's current arrangements, while ensuring that those customers who are unable or cannot afford to install such systems do not have to pay a subsidy through higher electricity bills to fund any scheme into the future.

The Government has given consideration to current policy practice in other jurisdictions, other relevant schemes or policies (including the national carbon pricing scheme), and national commitments made by the states and territories through the Council of Australian Governments (COAG) to phase out schemes that mandate the payment of FiTs that are in excess of the fair and reasonable value of exported electricity.

SUMMARY OF POLICY POSITIONS

ISSUE	POLICY POSITION
Fair and reasonable feed-in tariff rate	<ul style="list-style-type: none"> • The Tasmanian Economic Regulator will determine a fair and reasonable feed-in tariff that will apply from 1 January 2014. • The Regulator will undertake appropriate consultation in setting the new rate. • The feed-in tariff rate will be reviewed by the Regulator annually.
Mandatory requirement to offer FiT	<ul style="list-style-type: none"> • Electricity retailers who retail to small customers in Tasmania will be required by law to offer the feed-in tariff set by the Regulator to all eligible customers.
Transitional and legacy arrangements	<ul style="list-style-type: none"> • Existing feed-in tariff arrangements under Aurora Energy's NMBS will be closed to new customers at midnight (AEST) on 30 August 2013. • All existing NMBS customers at this date will continue to receive their current feed-in tariff (the 'legacy' feed-in tariff) until 1 January 2019, subject to maintaining an electricity account in their name (or their spouse's name) at their current premises. Existing customers who upgrade the capacity of their systems after 30 August 2013 will cease to be eligible for the legacy rate on all of their generating capacity. • Customers who have not yet installed or connected a system will have until midnight on 30 August 2013 to lodge with Aurora Energy a completed application form for embedded generation to be eligible to be included as an NMBS customer. This application must include evidence of a signed contract with, and a deposit paid to, an installer. These customers will then have until 30 August 2014 to install and connect their systems to remain eligible for the legacy feed-in tariff. • Customers who have already submitted a valid application for embedded generation with Aurora's network business will be processed under the rules that were in place prior to the Government's announcement on 18 August 2013. • Customers applying to install an eligible embedded generation system from 31 August 2013 will be entitled to a 'transitional' feed-in tariff of 8c per kW/h, which will be paid by Aurora Energy to customers until it exits the market on 1 January 2014. The payment of the 'transitional' feed-in tariff will be subject to the same eligibility criteria, terms and conditions as the existing NMBS.

- The Government will introduce legislation in the Spring Session of Parliament to give effect to the new feed-in tariff arrangements, including establishing the relevant rights and obligations for retailers, the network business and customers.
- The Tasmanian Economic Regulator will be required to complete an investigation by the end of 2013 to determine the new 'fair and reasonable' feed-in tariff that will apply from 1 January 2014. The Regulator's determination will be subject to appropriate consultation and will be reviewed annually.
- All retailers operating in Tasmania will be required by law to offer this feed-in tariff as a minimum to all eligible small customers with qualifying systems.
- Where customers are eligible for the legacy feed-in tariff, retailers will be required to pay these customers at this rate, but will also be entitled to recover any amount over and above the fair and reasonable rate from the state-owned network business. The estimated cost to network business of the legacy feed-in tariff is approximately \$6-7 million p.a. based on current and pending installations. The Government will issue a direction that the network business must not seek a regulatory pass-through to recover the cost imposed by this proposed legislative obligation.
- The network business will retain and manage the list of customers who are eligible to receive the legacy feed-in tariff over the transition period, and will communicate with retailers in this regard. There will be a fair and transparent process for resolving any disputes with regard to eligibility for the legacy tariff.

Metering arrangements

- The Government has instructed Aurora's network business to investigate and implement, as soon as practicable, a technical metering solution that provides small customers who connect a distributed generation system with the option of off-setting their on-site electricity consumption for hot water and heating – in addition to light and power – before any electricity is exported to the grid.

Bass Strait Islands

- The existing arrangements will continue to apply on the Bass Strait Islands, where solar installations displace the need for diesel generation and the 1:1 FiT rate is below the wholesale cost of electricity.
-

SUMMARY OF KEY CHANGES FROM PROPOSALS IN THE ISSUES PAPER

ISSUE	SUMMARY OF CONSIDERATION
Mandatory requirement to offer FiT	<p>Issues Paper Proposal</p> <ul style="list-style-type: none">• The retailers who purchase Aurora Energy's customer contracts would be required by law to offer the feed-in tariff set by the Regulator to all eligible customers. <p>Final Position</p> <ul style="list-style-type: none">• All electricity retailers who retail to small customers in Tasmania will be required by law to offer the feed-in tariff set by the Regulator to all eligible customers.
Eligibility for legacy arrangements	<p>Issues Paper Proposals</p> <ul style="list-style-type: none">• All existing Aurora Energy NMBS customers – including all intending customers who have paid a deposit on a distributed generation system – would continue to receive the 1:1 rate for their net exported electricity until 1 January 2017, on the condition that the customer remains on their existing retail contract.• Customers will only remain eligible for the legacy rate where they remain on their current standard retail contract. <p>Final Position</p> <ul style="list-style-type: none">• NMBS customers as at 30 August 2013 will be eligible to continue to receive their current FiT (the 'legacy' rate) under this scheme until 1 January 2019, subject to the customer's account remaining on-foot at their current premises. Eligible intending customers will need to have installed and connected their systems by no later than 30 August 2014 to maintain eligibility for the legacy rate.• NMBS customers will retain their eligibility to receive the legacy rate regardless of their contract type (e.g. where they move to new market offer under FRC), but the transfer of eligibility between premises or customers will <u>not</u> be allowed.• Customers who upgrade the capacity of their systems from 31 August 2013 will cease to be eligible for the legacy rate on all of their generating capacity.

3. WHAT IS THE PURPOSE OF THIS POSITION PAPER?

The Paper represents the Government's final policy position with regard to FiT arrangements that will apply under FRC.

This Position Paper reproduces in large part the contents of the Issues Paper, but has been amended and updated to capture key matters raised during the consultation process and to reflect adjustments to policy that have subsequently been made in response to submissions received. Please note that the 'Response to Consultation' Paper at **Appendix A** provides more detailed responses to each of the main issues raised during the consultation on the Issues Paper.

The Position Paper provides:

- a brief background description of how FiTs operate, including the difference between 'net' and 'gross' metering arrangements;
- a summary of the current net FiT offered by Aurora Energy, including the number of existing connections and installed capacity, the estimated cost of the scheme and how (and by whom) this cost is presently borne;
- a brief analysis of the efficiency and effectiveness of premium FiTs in delivering carbon abatement, network savings and renewable industry development benefits;
- an overview of FiT arrangements in other Australian jurisdictions, including how they have changed in response to issues of oversubscription and growing concerns relating to cross-subsidies;
- an explanation of what a 'fair and reasonable' FiT takes into account, with reference to the 2012 COAG National Principles; and
- a detailed explanation of the Tasmanian Government's policy positions, including how they will be implemented and discussions of potential impacts on customers.

4. BACKGROUND AND KEY ISSUES

4.1 Support for renewable electricity generation

The Tasmanian electricity supply industry provides support and incentives for investment in renewable electricity generation through a range of measures. The principal measures are:

- Tasmania's historically strong level of investment in renewable generation through Hydro Tasmania, in hydro-electric generation and, more recently, in wind generation;
- the Australian Government's carbon pricing mechanism;
- the Renewable Energy Target (RET) scheme, which comprises the Large Renewable Energy Target (LRET) scheme and the Small-scale Renewable Energy Scheme (SRES); and
- Aurora Energy's 1:1 FiT scheme (the NMBS).

The Australian Government's carbon pricing scheme is designed to absorb the societal costs of emitting carbon into the generation of electricity. This means that, over time, electricity markets will invest in generating technologies that have a lower carbon footprint.

The RET scheme is a complementary scheme with the aim of encouraging a minimum level of investment in specified renewable technologies within a set period of time. The scheme operates by requiring electricity retailers to acquit carbon certificates in proportion to the amount of electricity that they sell, with eligible renewable electricity generation creating certificates that can be traded and acquitted. Larger renewable schemes generate certificates through the LRET scheme while smaller, distributed generation systems, including solar PV, generate certificates through the SRES, which has seen the electricity produced by smaller systems valued at a premium.

Under the RET scheme, Tasmanian households and small business customers have been paying for RET certificates since the scheme was introduced in 2001. In 2012-13, the Tasmanian Economic Regulator approved costs of more than \$21 million incurred by Aurora Energy under the RET scheme to be passed through to Tasmanian customers. This equates to a mandatory contribution of about 3.5 per cent of Tasmanian household and small business electricity charges for investment in renewable electricity generation, including solar PV.

4.2 What are feed-in tariffs and how do they operate?

A FiT is a pricing mechanism whereby an electricity utility pays a customer for electricity that is generated by the customer and exported (i.e. 'fed-in') to the grid. Historically, FiTs have been based on a premium price being paid to the customer that is in excess of the normal wholesale cost of electricity generation, and sometimes in excess of the retail price of electricity.

The electricity produced by grid-connected customers is generally referred to as 'distributed generation', the most common form of which is small-scale, solar photovoltaic (PV) panels. Distributed generation systems are typically connected to the grid through 'import/export' meters. These meters record the quantity of electricity drawn from the grid separately from the amount that the solar electricity system feeds into the grid.

Net or gross metering

The price paid to customers for the electricity that they export can be offered to customers either on a 'gross' or 'net' arrangement, depending on how the customer's electricity generation and consumption is metered.

With simple **net metering**, the FiT applies only to the electricity that is exported in excess of what is consumed by the customer. Whenever a customer's system produces more electricity than the customer is consuming at any given time, the meter will record some electricity 'exported' to the grid. When a customer is consuming electricity at a greater level than the capacity of their distributed generation system, then electricity generated from the system is used on-site to off-set consumption of energy from the grid, reducing that customer's power bill. This means that for each kWh a customer generates and consumes on-site in a billing period, they save the relevant tariff rate that they would normally pay their retailer for consuming this energy.

For example, assume a household uses 2000 kWh of electricity over a quarterly billing period. Over the same period, the household's 3kW solar PV system generates 1000 kWh, of which 700kWh is used by the household as it is being generated and 300kWh is exported to the grid during those times when the system is generating more than the household is using. The household's consumption is therefore off-set by 700kWh, meaning that they only have to pay for 1300kWh of electricity from their retailer. This means that the customer effectively receives the relevant tariff rate (i.e. some combination of light and power and hot water/heating) for the 700kWh they generate and use on-site, because that is the price the customer avoids paying to their retailer for this energy. With net metering, the 300kWh that was exported to the grid during the quarter is credited to the customer at the FiT rate.

Under **gross metering**, customers receive the FiT rate for all the electricity they generate, regardless of how much of that electricity is consumed by the customer on-site. Using the example above, the generation of 1000 kWh of electricity over a quarterly period would generate a direct payment for that full amount of generation at the FiT rate to the customer; not just the net exported amount after consumption. However, the customer would also still be required to pay their retailer for the full 2000kWh of electricity consumed. The customer's quarterly bill would then be calculated on the difference between the retailer's charges for the consumption of the full 2000kWh and the total amount paid for their generation.

Where the FiT is set at the retail rate for electricity, there is little if no difference between net and gross models in terms of the total credit and/or savings to the customer. However, where the FiT is greater than the retail tariff, then under a gross metering model the credit to the customer for the electricity generated could be equivalent to, or possibly even higher than, the cost of the electricity consumed by the household, even if the household consumes more electricity than it generates. Conversely, where the FiT is lower than the retail rate, the customer does not receive the effective retail rate for the energy they consume on-site and is therefore likely to be worse off under a gross metering arrangement than under a net metering arrangement.

4.3 Aurora Energy's current feed-in tariff arrangements

The NMBS offers customers a 'one-for-one' (1:1) FiT at the relevant regulated light-and-power tariff (for residential customers) or general supply tariff (for small business customers) for their net exported energy. The current tariffs are 28.283c per kWh for residential customers and 38.5777c per kWh (up to 500 kWh and 28.319c per kWh thereafter) for business customers.

The NMBS is typically based on net metering against a customer's consumption under their light and power tariff or general supply tariff only, which means that customers only pay for the electricity they use under this tariff over and above what their power system produces. If the amount of electricity a customer produces exceeds the amount of electricity they use at any given moment in time under the relevant tariff, the difference – or 'net export' to the grid – is credited to the customers' quarterly account at the same rate that the customer purchases electricity from Aurora.

Unlike other Australian jurisdictions, there are no legislative or regulatory arrangements in place that require Aurora to pay customers a set rate for the energy they export to the grid. Further, customers with distributed generation systems of less than 10kW – which comprises the vast majority of FiT customers – in most instances, do not currently have any contractual arrangements supporting their receipt of the regulated retail price under the NMBS, meaning that Aurora could, in theory, change the current arrangements at any time.

There are currently more than 15 000 Tasmanian customers with distributed generation systems connected to the grid and receiving the FiT. As Figure 1 shows, the rate of installations increased significantly from approximately 200 per month in February 2012 to around 500 per month in February 2013. New installations are currently being connected at an average of 600 per month.

In addition to the increase in the number of installations over the last few years, there has also been an increase in the average capacity of installations. As shown in Figure 2, between December 2008 and June 2010, the average capacity of installations in each month remained relatively stable at between 1kW and 1.5kW. Since June 2010 the average size of installations has been steadily increasing and between June 2012 and February 2013 the average capacity of systems installed in any given month ranged between 3kW and 4.5kW. The average system capacity across all installations currently sits at around 2.3kW.

Figure 1: Installations of small scale distributed generation systems

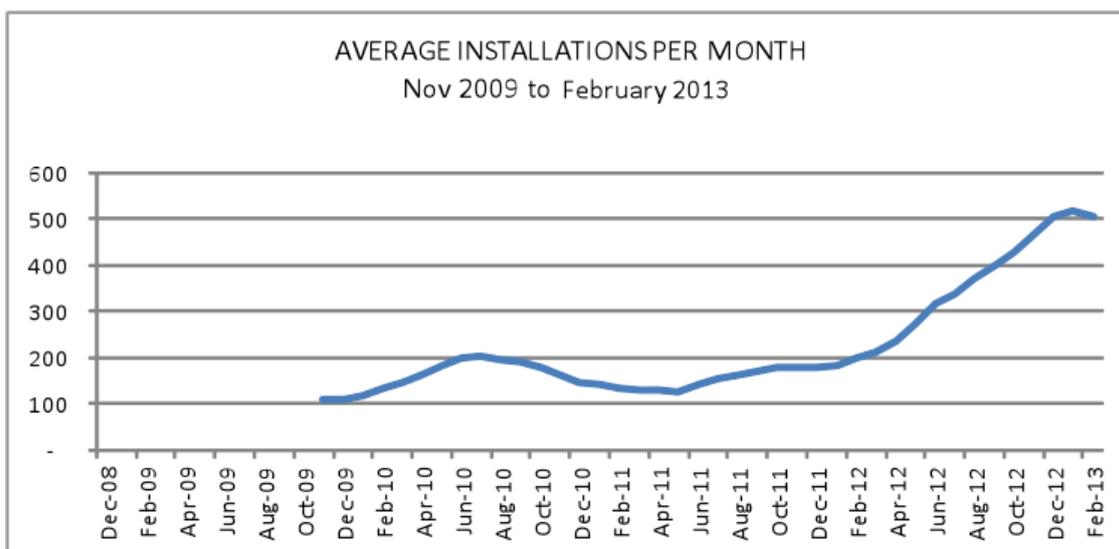
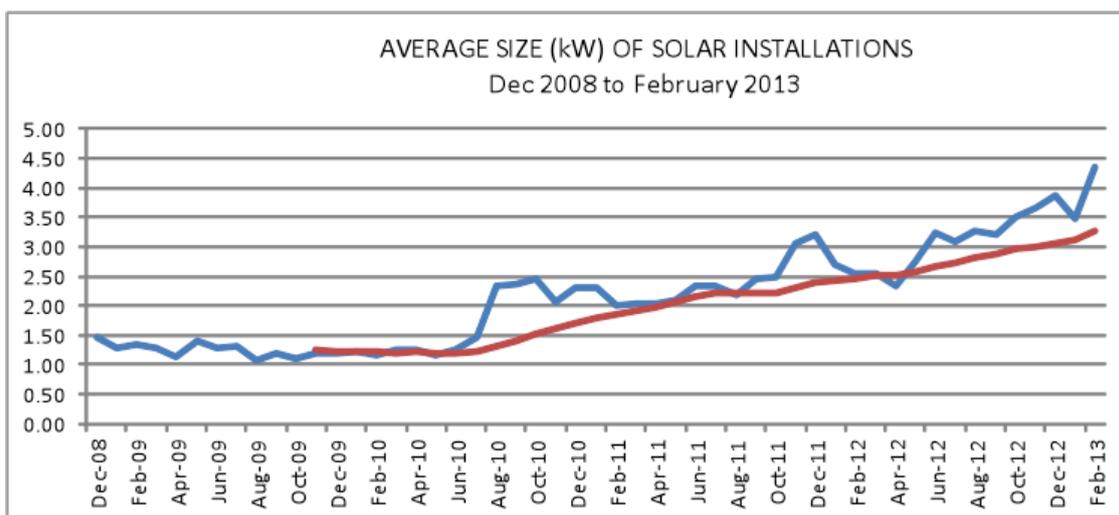


Figure 2: Average size of solar installations



While the NMBS has been available since 2000, installed capacity has only increased significantly since 2009. This suggests that the FiT has not been the most important investment driver for most customers installing their solar systems, at least in recent years. Other important factors include:

- **dramatic and ongoing reductions in system costs** – for example, the cost of an average solar PV system fell from \$12 000 per kW in 2008 to \$3 900 per kW in 2011 and is currently closer to \$3 000 per kW;
- **Commonwealth incentives that reduce the upfront capital installation costs** – the Small-scale Renewable Energy Scheme (SRES) provides up-front access to Small-scale Technology Certificates (STCs) at generous multiplier rates in recent years; and
- **increasing electricity prices** – which have increased the value of household demand that can be met by solar PV.

Financial data from Aurora Energy shows that in 2012-13, the NMBS cost the Energy Business (retail) approximately \$4.2 million, assuming the value to Aurora of this energy was 8c per kWh equivalent to the wholesale energy rate. This estimate does not include any revenue foregone as a result of energy generated by customers for their own use that is not purchased from Aurora, as this is not a cost to Aurora Energy.

If the current 1:1 FiT remained in place, Aurora estimates that the cost of the scheme could potentially rise to around \$8 million in 2013-14, assuming a continuation of recent installation trends (both number of systems and increasing capacity).

The cost of the NMBS is currently borne entirely by Aurora Energy's Energy Business. The Government does not reimburse Aurora for any of the cost of offering the NMBS, nor is the cost passed through to customers via electricity bills.

Effectively, the Government – and hence Tasmanian tax-payers – fund the NMBS indirectly through foregone returns that may have otherwise been provided by Aurora Energy to the Government as shareholder on behalf of the Tasmanian community. There is no formal arrangement in place that recognises the cost of the NMBS via a reduced return to Government. This means that the relative value of Government support to the NMBS has never been assessed against other possible uses of these public funds, including other potential ways to reduce carbon emissions or household electricity bills.

5. ARGUMENTS FOR A 'PREMIUM' FEED-IN TARIFF

The current 1:1 FiT offered by Aurora Energy – while not as generous as some schemes that have been offered in other jurisdictions – can still be considered a 'premium' FiT. This is because the price paid to customers significantly exceeds the value of that energy to the retailer.

In simple terms, the value to a retailer of the electricity produced by solar PV and other distributed generation installations is derived from the avoidance of having to purchase that electricity from the wholesale National Electricity Market (NEM). This is in addition to other factors such as the avoidance of losses that occur when electricity is transmitted through the grid (this is discussed further below). It is important to remember that retailers purchase their electricity at the wholesale rate, not the retail rate, so a FiT at the retail rate still means the retailer is purchasing electricity at a much higher price than it could otherwise.

The Issues Paper clearly stated, as a matter of policy, that the Government does not intend to legislate to introduce a premium FiT in the place of the current NMBS, but rather will establish a minimum 'fair and reasonable' rate that reflects the true value of exported energy to the retail market.

The objective of a premium FiT is to encourage the installation of renewable distributed generation. A significant number of submissions made in response to the Issues Paper supported a premium '1:1' tariff on the basis that such a scheme underpins a range of purported policy goals.

The main arguments deployed to support the retention of a 1:1 FiT in an FRC environment include:

- the protection of investments made by solar customers under the current NMBS;
- the carbon reduction benefits of distributed generation;
- network augmentation deferral due to the impact of distributed generation on peak demand;
- the need to support, recognise and/or subsidise the broader contribution of the solar industry to the Tasmanian economy; and
- other less tangible notions of the economic value of rooftop solar to Tasmania's 'branding' as an environmentally progressive state.

In developing future FiT arrangements for Tasmania under FRC it is important to consider: a) whether these policy outcomes are justified or desirable; and b) whether a premium FiT is the most efficient or effective way of achieving any or all of these objectives.

Most of the arguments that have been advanced by stakeholders for the introduction of a legislatively mandated 1:1 FiT were addressed in one form or another in the Issues Paper. However, the following information further clarifies the Government's position in response to each of these issues.

5.1 Protection of individual customers' investments

The Government's position is that this issue will be dealt with via the proposed 'legacy' arrangements for existing customers. It should be noted that the Government has made some significant adjustments to these arrangements in response to stakeholder feedback, which are spelled out in further detail below.

The Government recognises that existing FiT customers should be afforded fair treatment, notwithstanding the fact that such investments have been made in the absence of legislative, regulatory or contractual support for the ongoing payment of the voluntary 1:1 tariff.

Once the new arrangements are in place and customers are aware of them, they can make an informed decision as to whether to invest in a solar system. It is therefore not necessary to maintain a 1:1 FiT to protect future investment decisions.

5.2 Reducing greenhouse gas emissions

Tasmania's existing emissions profile for electricity purchased from the grid is already the lowest of all Australian jurisdictions by a significant margin, reflecting the dominance of renewable hydro-electric and wind generation (see Table 1, below).

However, any additional generation of electricity within Tasmania from renewable resources may reduce the need for imports over Basslink, particularly during times of drought and attendant low water storages. Electricity imported over Basslink is primarily generated from non-renewable resources on mainland Australia, mostly coal. Accordingly, any additional renewable generation in Tasmania will displace reliance on non-renewable energy resources and consequently further reduce CO₂ emissions nationally.

Table 1: State and Territory electricity emissions factors, 2012

State, Territory or grid description	Emission factor kg CO ₂ -e/kWh
New South Wales and Australian Capital Territory	0.88
Victoria	1.19
Queensland	0.86
South Australia	0.65
South West Interconnected System in Western Australia	0.82
Tasmania	0.26
Northern Territory	0.71

Source: Australian National Greenhouse Accounts, July 2012.

The key issue, however, is about the scale and the cost of carbon abatement. For example, when hydro storages were at extremely low levels during April 2008, Tasmania imported 291 GWh for that month. On the basis of a household installation of 3 kW capacity generating an average of 10.5 kWh per day, there would need to be over 900 000 household installations to displace this amount of imported energy. At a current average cost in the vicinity of \$8 000 for a 3 kW household installation, this would require an initial up front investment in the order of \$7.2 billion to replace the capacity for electricity imported over Basslink for that relevant period.

Another way of putting this in context is that if every household in Tasmania were to have a 3 kW installation, the installation cost would still be close to \$2 billion, with capability to displace only around one sixth of the total import capacity of Basslink. Additionally, this energy would not be available 'on-demand' like hydro generation or Basslink for use during early winter morning or evening Tasmanian peak periods, as it is only generated when the sun is shining.

Cheaper forms of CO₂ abatement can be achieved, at a household level, through other energy efficiency measures, such as improved insulation, more efficient heating (including solar hot water heating), and lighting. All of these measures also reduce household electricity bills.

Further, the national carbon pricing scheme provides appropriate incentives for efficient measures to be pursued, without the Tasmanian Government needing to implement inefficient complementary schemes. The SRES component of the RET scheme also provides incentives for the take-up of renewable generation, including solar PV.

At the generation level, investment in other renewable or low emissions generation, including wind, or further research into geothermal, tidal or wave generation, are likely to provide more cost-effective long-term benefits for the Tasmanian community than the expanded roll-out of rooftop solar PV.

In summary, the Government believes that a premium FiT would represent an additional and unnecessary distortion in the market, where systems with a high cost of production would be subsidised without ongoing incentives to reduce the costs of producing renewable energy. As shown above, rooftop solar PV does not necessarily produce the lowest cost renewable energy and therefore a subsidised premium FiT is an inefficient allocation of resources.

5.3 Reducing peak demand and network costs

Solar PV generation can potentially offer demand reduction benefits in mainland jurisdictions where peak demand is driven by the use of air conditioners during hot summer afternoons, when solar PV can be operating at 28-38 per cent of capacity.²

However, the actual network value of distributed generation in deferring or reducing investment augmentation is, at best, unclear. For example, the Victorian Competition and Efficiency Commission (VCEC) has noted that no reliable estimates of this value currently exist and, further, that any value that is derived cannot be efficiently captured through a FiT.³

The Essential Services Commission of South Australia (ESCOSA) also notes that "...it is unclear as to whether or not there are additional net benefits from solar PV (e.g. possible net benefits to networks from deferred augmentation and indirect benefits to retailers)".⁴

In its recent FiT determinations, the NSW Independent Pricing and Regulatory Tribunal (IPART) went further, suggesting that network benefits of distributed generation were negligible. It notes that:

...PV exports are unlikely to provide system-wide benefits that will materially reduce either distribution network or transmission costs in NSW. Any benefits that arise are likely to be location and time-specific, however at current levels of PV installation these benefits are likely to be small. In addition, these benefits may be offset by system-wide cost increases as a result of the uptake of small-scale solar PV.⁵

The extent to which grid-connected solar PV systems can contribute to deferred network augmentation depends on the extent to which the peak generation of solar PV systems reliably coincides with peak demand. Where peak generation coincides with lower demand, embedded solar PV generation is likely to provide few corresponding benefits.

This is likely to be the case in Tasmania, where peak demand is driven by cold winter mornings and evenings when solar PV output is negligible. Peak generation for solar PV systems occurs on sunny summer days, when Tasmanian demand is not as high.

It is also worth noting that increased penetration of distributed generation can also *increase* network charges for customers who do not have distributed generation systems. This can happen because customers with distributed generation can use the electricity they produce themselves and hence avoid paying the full retail price, which under current tariff structures includes a contribution to the cost of providing network services through the variable charge.

² Australian Energy Market Operator, Rooftop PV Information Paper – National Electricity Forecasting 2012.

³ VCEC (2012) Power from the People: Inquiry into distributed generation, Summary Report, p.1

⁴ ESCOSA (2012) 2012 Determination of Solar FiT Premium, Final Price Determination, p.48

⁵ IPART (2012) Solar FiTs: Setting a fair and reasonable value for electricity generated by small-scale solar PV units in NSW, p66

The consequence is that the largely fixed cost of providing the network is spread across a smaller level of consumption, increasing per unit costs for customers without distributed generation systems, who cannot avoid paying the full retail price. Distributed generators still need to access the grid, for both their imports and exports, but make a smaller contribution to the cost of providing this system.

The Energy Supply Association of Australia (ESAA) has examined this issue in some detail and has recently released its *Distributed Generation: Implications for Australian Energy Markets* Report, which discusses the need to look at the way consumers are charged for the cost of the networks to ensure everybody pays their fair share.

5.4 Supporting development and innovation in small-scale renewable energy

The use of premium FiTs to stimulate greater innovation in renewable technologies will only be of ongoing benefit if, as a result of the increased interest, new industries and technologies are developed which are likely to provide products that become more cost effective, and that can be adopted more widely in the market without the need for continuing taxpayer or consumer subsidy. This may be due to improvements in design, or to efficiencies of scale due to increased production. This is the 'infant industry' argument.

However, solar PV electricity generation is now a mature technology that has been used for a number of decades. Over time there have been advances in PV technology that have reduced costs and increased efficiency significantly, and PV cells are now mass-produced both in Australia and overseas.

Further, the marginal impact of a Tasmanian premium FiT to encourage the development of solar technology would appear to be very small when set in the context of the global solar PV market.

A number of submissions to the Issues Paper suggested that the solar industry should be supported from an innovation or 'green jobs' perspective. However, the solar industry in Tasmania consists solely of the installation of solar PV systems. There is no PV system manufacturing industry in Tasmania and therefore the benefit to the economy is principally through the wages paid to employees engaged in installation.

Estimates of employment in the solar industry for Tasmania are difficult to quantify. Many solar installation services are offered by air conditioning and heating businesses. As at the last Census, the air conditioning and heating services sector employed 289 employees, an unknown share of which could be categorised as working in the solar installation industry. There would also be some solar installation employees that would be categorised as working in electrical services (1,857 employees).

The current cost of the FiT scheme is effectively a subsidisation of the solar industry, borne by the Tasmanian Government through lost revenue from Aurora Energy. The current effective subsidisation of the solar industry is high, given the likely low level of direct employees.

Arguments advanced by a number of submissions on this topic appear to suggest that the purpose of the FiT – at least in part – is to support the solar industry and to stimulate jobs. The current system is effectively subsidised by the Government through reduced revenue from Aurora Energy. The cost of the subsidisation increases over time as the number of installations grows, with jobs in the industry dependent on new installations and not ongoing maintenance. This is effectively a high subsidisation per job.

If the aim of the scheme was to stimulate employment in the industry, it should be judged on its merits against other industry proposals by the Department of Economic Development, Tourism and the Arts. There is currently no evidence to suggest that there is especially high activity in the industry per \$1000 effectively spent by the Government.

Given this, the Government's position remains that there is little rationale for a premium FiT from an innovation or industry development perspective beyond a straight subsidy to the local solar installation industry, which it does not support.

5.5 Supporting Tasmania's 'clean, green' brand

A number of stakeholders made reference in submissions to supposed 'branding' benefits to Tasmania of rooftop solar installations. It is difficult to see, at face value, how subsidising rooftop solar to further increase installation rates would do anything to better position Tasmania in its key export and/or tourism markets. Branding relies to a large extent on the possession of a natural advantage over one's competitors. Hydro and wind energy are more closely aligned than solar to Tasmania's branding for this reason.

It is possible that what some stakeholders are describing when they refer to 'branding benefits' is actually a private benefit enjoyed by individual customers who wish to reduce their carbon footprint and derive positive feelings from doing so.

6. FEED-IN TARIFFS IN OTHER NEM JURISDICTIONS

Within the past five years, all mainland Australian state and territory governments have mandated FiTs in order to encourage more customers to install distributed generation systems. Mandated FiTs have typically been paid to customers by distributors, with the costs then passed through to electricity customers via their retail electricity bills. In some instances, the FiTs have been set well above the retail rate, with New South Wales, Victoria and Western Australia offering 60c per kWh.

However, most jurisdictions have now either closed or are in the process of phasing out premium FiT arrangements after higher than expected subscription rates, and the growing cost to government and/or electricity customers. A brief summary of arrangements as they have evolved in recent years in other NEM jurisdictions is provided below.

6.1 Victoria

In 2009 the Victorian Government introduced a 60c per kWh FiT for net exports (until 2024), which was closed in December 2011 and replaced with a 25c FiT until 2016. In response to a review conducted by VCEC, the Victorian Government closed the 25c FiT to new connections from 30 September 2012 and has now mandated a minimum rate of 8c per kWh from 2013, with annual review and adjustment by the Regulator until 2016. Customers under the legacy schemes will continue to receive their respective FiTs until 2024 and 2016 respectively.

6.2 Queensland

The Queensland Government introduced the Solar Bonus Scheme from 1 July 2008, which paid eligible customers (solar PV only) a FiT of 44c per kWh for electricity exported to the grid under a net metering arrangement. The rate offered was almost double Queensland's general domestic use tariff at that time. On 25 June 2012 the Queensland Government announced that it would be closing the existing 44c FiT to new connections from 9 July 2012, and offering in its place an 8c per kWh FiT. The Government has suggested that, if retained at 44c per kWh, the Solar Bonus Scheme would have cost every household \$54 a year by 2014-15, costing Queensland about \$1.8 billion by 2028. Existing customers continue to receive the legacy 44c per kWh rate.

The 8c per kWh scheme is due to end in mid 2014 and will be replaced by the fair and reasonable rate set by the Queensland regulator, which is 7.55c per kWh.

6.3 South Australia

The South Australian Government introduced a premium FiT in July 2008 under which customers were guaranteed 44c per kWh from South Australia Power Networks (the distributor) for a period of 20 years (until 2028). From October 2011 the FiT was reduced to 16c per kWh, offered until 2016. Customers also receive the retailer contribution – known as the 'FiT premium' – in addition to the relevant payment from the distributor that they are entitled to (i.e. 44c or 16c). The FiT Premium is set by Essential Service's Commission of South Australia (ESCoSA) as part of its determination of the regulated standing contract electricity price. The retailer contribution is currently 9.8c per kWh (1 July 2013 to 31 December 2013).

The generous distributor contributions are being phased out over the next two years after which time new customers will receive only the regulated retailer contribution.

6.4 New South Wales

The New South Wales Government's Solar Bonus Scheme commenced in November 2009 and offered payments of 60c per kWh on a gross basis for customers with solar and wind installations. This was reduced to 20c per kWh for new connections after midnight, 27 October 2010.

The NSW Government closed the Solar Bonus Scheme to all new participants on 1 July 2011. It then asked IPART to recommend a fair and reasonable value for a FiT for customers who are not in the Solar Bonus Scheme, and also a regulatory or other mechanism by which this value could be implemented in NSW. IPART recommended that a fair and reasonable rate would be in the range of 5.2c to 10.3c per kWh in 2011-12. IPART has since recommended a FiT of 6.6 to 11.2c per kWh for 2013-14. IPART also recommended a very light-handed regulatory approach to the implementation of the FiT based on publication of the benchmark rate to allow customers to assess FiT offers from retailers. Retailers are not, however, required to offer a rate within the benchmark range. Solar Bonus Scheme customers continue to receive their existing 'legacy' FiTs.

On the request of the Government, IPART also recommended that retailers be required to make a contribution to help fund the legacy costs of existing Solar Bonus Scheme customers. IPART recommended a statutory obligation on retailers to offer to each of its customers 6.5c per kWh under the Solar Bonus Scheme.

6.5 Australian Capital Territory

In July 2008 the ACT Government introduced a gross 'micro generator' FiT of 50.05c per kWh for systems up to 10kW capacity and 40.04c per kWh for systems up to 30kW capacity. The program was revised in April 2010; from 50.05c per kWh to 45.7c per kWh for all systems up to 30kW capacity installed from 1 July 2010. All contracts are valid for 20 years from the date of contract.

The FiT scheme was closed to new customers from July 2011. However, following the October 2012 ACT election, the Renewable Generator Guarantee (RGG) was introduced. The RGG is a guaranteed 20-year payment for homes and businesses that install solar PV systems up to 200kW. The scheme will commence with a rate set by the Independent Competition and Regulatory Commission (ICRC) – estimated to be around 20c per kWh – for those who sign up in the first year. The rate will be decreased annually for new applicants, however, and may be reduced significantly in 'boom years' when the total capacity of installations exceeds a yearly target of 10MW.

ActewAGL also continues to offer its own voluntary 1:1 FiT.

7. WHAT IS A 'FAIR AND REASONABLE' FEED-IN TARIFF?

As noted above, most jurisdictions that have previously offered generous FiTs have moved to close these schemes after it was found that they provided an unnecessarily high incentive for installations and that the cost of these schemes was being heavily cross-subsidised by non-FiT customers through higher electricity prices.⁶

The cross-subsidy is also regressive in nature, because those electricity customers who either cannot afford or are unable (i.e. renters) to install a solar PV system effectively subsidise those who can and do install such systems.

In response to directions from governments, the economic regulators in a number of other jurisdictions have recently conducted investigations to determine a fair and reasonable FiT that more accurately reflects the value of electricity that is fed into the grid by customers with distributed generation and which avoids cross-subsidisation between feed-in and non feed-in customers or ongoing subsidy by government.

But what does 'fair and reasonable' actually mean? In making their determinations, regulators have variously taken into account:

1) The output value (unit price) of the electricity produced, which can include:

- *the reduction of electricity that must be purchased on the wholesale energy market;*
- *avoided network charges;*
- *greenhouse gas reduction (e.g. due to the operation of a carbon price); and*
- *the ability for distributed generation to displace higher marginal cost electricity (e.g. gas) with lower marginal cost renewables in the generation dispatch merit order and therefore reduce the average wholesale price.*

2) The network value of the electricity produced, which can include:

- *deferral of network augmentation costs (if any); and*
- *costs of network reinforcing that is required to allow for the safe and reliable connection of distributed generation.*

The determination of a fair and reasonable rate in other jurisdictions has therefore been based on the fair and reasonable assessed value of electricity generated by distributed generation systems, rather than on a target payback period for the system or a target return on investment (ROI). These issues have typically been dealt with through 'grandfathering' and transitional measures, at the same time as the fair and reasonable economic rate has been introduced for new installations.

Taking all these factors into account, regulators have broadly determined that a fair and reasonable FiT is much closer to the wholesale price of electricity than the retail rate. For example:

- The Victorian Competition and Efficiency Commission recommends that an 'efficient and fair' market price in 2013 is in the range of 6-8c per kWh.
- The Independent Pricing and Regulatory Tribunal (NSW) has determined a benchmark range for a fair and reasonable tariff of 6.6 to 11.2c per kWh for 2013-14.

⁶ See for example IPART (2012) Solar FiTs: Setting a fair and reasonable value for electricity generated by small-scale solar PV units in NSW

- The Essential Services Commission of South Australia has determined a tariff of 9.8c for 1 July 2013 to 31 December 2013.
- The Queensland Competition Authority has determined that a fair and reasonable (cost reflective) value of exported PV electricity is 7.55c per kWh.

In summary, most jurisdictions are now moving away from market-distorting incentives, funded by cross-subsidies between customer classes, and instead are implementing economically efficient, subsidy-free FIT regimes that capture and reflect the true market value of the electricity being exported by customers.

This approach is also consistent with national principles agreed by the Commonwealth and all state and territory governments at the 7 December 2012 Council of Australian Governments (COAG) meeting. The principles provide, among other things, that any decision to legislate rights for micro-generation customers to receive more than the value of the electricity they produce (i.e. a premium FIT) should be transitional and should be closed to new participants by 2014.

The 2012 COAG National Principles are provided at **Attachment A**.

8. A NEW FAIR AND REASONABLE FEED-IN TARIFF FOR TASMANIA

In order to ensure fair and equitable outcomes for all Tasmanian electricity customers, and that certainty is provided to Tasmania's solar customers (existing and potential) and industry, a number of issues have been considered in determining the new FiT policy and supporting arrangements that ensure any transition is managed in a fair and sensible way.

The Government has taken the following matters into account in arriving at its policy position:

- Moving to a mandated fair and reasonable FiT is consistent with approaches in other jurisdictions and commitments made under the 2012 COAG National Principles.
- The introduction of a national carbon pricing scheme and the operation of the SRES which provide incentives for the most efficient investments to be made at both the household and generation levels, without the Tasmanian Government needing to implement inefficient complementary carbon reduction schemes.
- Recent demand trends suggest that a premium FiT is no longer necessary to encourage the installation of distributed generation systems, given both the dramatic and continued price reductions of solar PV technology and that the primary benefit of these installations to most customers remains the power bill savings achieved through reduced demand for electricity supplied by their retailer.
- The net cost to Aurora Energy of the current 1:1 tariff is currently \$4.2 million and continues to rise with additional installations. With Aurora's exit from the market, this ongoing cost would need to be borne directly either by Tasmanian taxpayers or by customers without distributed generation systems via retailer pass-throughs.
- The experience of other jurisdictions suggests that premium FiTs eventually result in significant (and regressive) cross-subsidies between customer classes.
- There is little evidence of any significant benefits in Tasmania relating to the reduction of peak demand or deferred network augmentation, principally because Tasmanian peak demand is driven by cold winter mornings and evenings when solar PV output is negligible.
- There is little rationale for a premium FiT from an innovation or industry development perspective beyond a straight subsidy to support the local solar installation industry.

8.1 Establishing a new 'fair and reasonable' rate

The Government will introduce legislation this year that will place an obligation on retailers to pay to eligible small customers with qualifying systems a fair and reasonable FiT – to be determined by the Tasmanian Economic Regulator – on every net kWh of exported electricity.

Under this legislation, eligible customers will be those customers who:

- have a grid-connected renewable energy generation system (including solar PV, wind or hydro) up to a maximum capacity of 10kW;
- are residential or small business customers who use less than 150MWh per annum; and
- live on mainland Tasmania (including Bruny Island).

These eligibility criteria closely mirror those that apply under Aurora's current NMBS. A small customer who wishes to connect a system with a capacity greater than 10kW will need to negotiate an individual power purchase agreement with their retailer; as will business customers who use more than 150MWh per annum.

The legislation will require the independent Tasmanian Economic Regulator to determine the new fair and reasonable FiT to be offered by new retailers, in place of the 1:1 rate currently offered by Aurora Energy voluntarily.

The Regulator will review the FiT annually and undertake all future FiT determinations. The first FiT determination will be made as soon as possible, before the end of this calendar year and will commence from 1 January 2014.

The legislation will set the broad approach and principles that the Regulator must have regard to in making a FiT determination.

To expedite the process for establishing the new FiT arrangements, existing powers under the *Electricity Supply Industry Act 1995* will be used to direct the Tasmanian Economic Regulator to commence its investigation in advance of the introduction of legislation.

It is important to note that the legislatively mandated FiT, once established, will act only as a 'safety net' for customers to ensure that they can always access a fair price for their exported energy. It will not prevent retailers from offering higher FiT rates in an effort to capture customers as part of their overall marketing strategy. Retailers in other jurisdictions already offer feed-in tariffs on a voluntary basis – often on top of the minimum government-mandated rates, where they exist – to attract solar customers.

Further, a fair and reasonable FiT will ensure that customers who do not have solar PV systems are not unfairly impacted. As the Queensland Competition Authority notes⁷, when it comes to electricity prices, unfortunately there is no 'magic pudding'. If one group of customers receives a benefit in excess of the true savings they make, or enjoys prices below the cost of their consumption, these benefits must be funded either by other electricity customers or by taxpayers.

Particularly in a competitive market environment, the retention of a premium tariff would unfairly impact on those electricity customers who cannot afford to install solar systems by putting upward pressure on their electricity prices over time, as installation numbers increase. Alternatively, the Government would need to direct taxpayer funds to cover the cost of the difference between the true value of exported electricity to retailers and the retail rate, which would come at the expense of other essential services provided by government.

8.2 Transitional arrangements for existing customers

The Government wants to ensure that customers who have installed solar systems under the current Aurora scheme are treated fairly and equitably as part of the transition to new arrangements.

Because the Regulator's FiT Determination will result in a rate that is lower than the current retail rate, the Government will legislate to require retailers to continue to pay all existing customers a FiT at the rate they are currently offered under the NMBS until **1 January 2019**. This will be known as the 'legacy' feed-in tariff.

This represents a change from the Government's initial policy position as expressed in the Issues Paper, which was for a three year transition period starting from 1 January 2014. It was revealed during the consultation process that a significant number of customers have made capital investments - and in some cases taken out finance packages - in the belief that the 1:1 rate was guaranteed through a five year connection contract with Aurora Energy. The reality, however, is that the five-year connection contract deals only with the technical specifications of customer solar systems, and not the FiT rate that is to be paid to the customer.

⁷ Queensland Competition Authority (2013) Estimating a Fair and Reasonable Solar Feed-in Tariff for Queensland – Final Report, p.iv

Notwithstanding this, a number of submissions made apparent that some solar installers may have adopted sales strategies focussed on selling solar PV systems with finance packages to retirees and pensioners. They appear to have represented that the five-year connection agreement included a guaranteed 1:1 rate for at least this period.

Where retailers are required to pay eligible customers the 'legacy' FiT during the transitional period, they will be entitled to recover from the state-owned network business the difference between this rate and the fair and reasonable rate set by the Regulator. The cost to the network business will be explicitly reported to ensure transparency. The Government will ensure that the network business will not seek a regulatory pass-through to recover these costs through increased customer tariffs.

It is generally preferable for non-commercial activities of Government businesses to be delivered as a community service obligation and paid for by the level of government that seeks to provide the service. However, in this instance, the legacy costs of the NMBS arise from a commercial decision taken by Aurora Energy and so responsibility for those costs will pass to the merged network business. In this regard, responsibility for the NMBS costs is not substantially different to other decisions of the current network businesses that will be inherited by the merged network business and which may affect its financial position, such as network pricing strategies.

The Government had suggested in the Issues Paper that eligibility to receive the legacy rate would only hold for so long as the customer remained on their standard contract. However, after further considering stakeholder feedback, the Government has determined that eligible customers may continue to receive their current NMBS rate even if they move to another contract offering after 1 January 2014. This will give customers with distributed generation systems an additional level of choice without having to worry about losing their eligibility for the legacy FiT.

Eligibility will not, however, be transferrable between premises. This also means that customers who move into premises with an existing solar system will not be able to 'inherit' any grandfathering eligibility held by the previous owners.

Transferring eligibility between premises would be administratively complex, and the transition arrangements are principally to ensure that customers who have already invested in systems under certain payback period assumptions (which are typically based on continuing to reside at the premises at which the system is installed) are not treated unfairly.

Further, customers will no longer be eligible for the legacy rate if they upgrade the capacity of the system from 31 August 2013, even where the total capacity is less than 10 kW. System upgrades include the installation of additional panels where the system has an upgradeable inverter, as well as upgrades that would require a new or additional inverter.

Customers will be able to repair or replace their systems on a 'like-for-like' basis without affecting eligibility for the legacy feed-in tariff rate but the total system capacity must be equal to or less than the original capacity.

Customers will be able to decrease the capacity of their system at any time without affecting their eligibility to receive the legacy feed-in tariff.

8.3 Maximising power bill reduction benefits of solar under the new FiT arrangements

The Government wants to maximise the benefit to customers of being able to use their on-site generation to reduce their power bills.

One potential barrier to this is the way in which most customer' meters are configured, which means that electricity generated by a customer on-site can only be used to off-set consumption under the light and power/general supply tariff, before the installation starts to export 'excess' electricity to the grid. This means that the majority of customers cannot use their systems to off-set consumption under other tariffs, including hot water and heating (Tariffs 41 and 42).

Given that the NMBS currently offers its 1:1 feed-in tariff at the highest tariff (light and power/general supply), existing customers actually benefit from being able to export at this rate, rather than receiving a lower effective rate via an off-set to their consumption under their other tariffs.

However, new customers who will not be eligible for the legacy rate would benefit from the ability to use their on-site generation to off-set their other retail tariffs before their system begins exporting to the grid. This is because the new transitional and fair and reasonable FiTs will be lower than all of the retail tariffs under which a customer consumes electricity.

Therefore, in response to significant stakeholder feedback on this issue, the Government has instructed Aurora's network business to investigate and implement, as soon as practicable, a technical metering solution that provides small customers who connect a distributed generation system from 31 August with the option of off-setting their on-site electricity consumption for hot water and heating – in addition to light and power – before electricity is exported to the grid.

Where existing customers cease to be eligible for the legacy rate, they will also be given the option of paying for a meter re-configuration (where this is technically possible) or meter replacement to enable off-set against more of their total energy consumption.

8.4 Process for closing Aurora's Net Metering Buyback Scheme and eligibility to receive the legacy rate

Existing feed-in tariff arrangements under Aurora Energy's NMBS will be closed to new customers at midnight (AEST) on 30 August 2013;

All existing NMBS customers at this date will continue to receive their current feed-in tariff (the 'legacy' feed-in tariff) until 1 January 2019, subject to maintaining an electricity account in their name (or their spouse's name) at their current premises. Existing customers who upgrade the capacity of their systems after 30 August 2013 will cease to be eligible for the legacy rate on all of their generating capacity.

Customers who have not yet installed or connected a system will have until midnight (AEST) on 30 August 2013 to lodge with Aurora Energy a completed application form for embedded generation to be eligible to be included as an NMBS customer. This must include evidence of a signed contract and a deposit. These customers will have until 30 August 2014 to install and connect their systems to remain eligible for the legacy feed-in tariff. The legacy period closes for all customers on 1 January 2019, irrespective of the connection date of a customer's system.

Customers who have already submitted a valid application for embedded generation with Aurora's network business will be processed under the rules that were in place prior to the Government's announcement on 18 August 2013.

Customers applying to install an eligible embedded generation system from 31 August 2013 will be entitled to a 'transitional' feed-in tariff of 8c per kW/h, which will be paid by Aurora Energy until it exits the market on 31 December 2013. The payment of the 'transitional' feed-in tariff will be subject to the same eligibility criteria, terms and conditions as the existing Net Metering Buyback Scheme.

Additional detail relating to the closure of the existing NMBS scheme – and customers' eligibility to receive the 'legacy' FiT – is available at the Energy Reform website www.electricity.tas.gov.au

8.5 Potential customer impacts

Predictions around individual customer impacts are inherently problematic because of significant differences between customers with regard to:

- system capacity;
- system efficiency – i.e. the capacity factor based on hours of sun received due to siting, orientation, quality of solar panels, etc;
- the customer's load profile and the amount of total electricity generated that is used on site, compared to the excess amount that is exported;
- the customer's existing mix of retail tariffs; and
- when the customer installed their system and the installation cost – i.e. how much of the capital installation cost of the system has already been recovered through avoided consumption and FiT credits.

The Issues Paper set out a number of examples to demonstrate the potential impacts on customers using a number of assumptions.

Following the release of the Issues Paper, feedback from a number of customers indicated that the assumptions used in the Issues Paper to demonstrate the impacts on customers did not represent their situation, particularly in respect of the assumption regarding the amount of electricity that is used on-site versus that which is exported. As a result, a Supplementary Paper was released on 3 June 2013 which expanded on the impacts of a change in the feed-in tariff rate across a broader set of customers and circumstances.

It is important to note that the extension of the transition period means that existing customers will now not be impacted by the new FiT arrangements until **1 January 2019**. Customers considering connecting a distributed generation system in the future will be able to make their own informed assessment of whether or not to install a distributed generation system based on the new arrangements.

8.6 Arrangements on the Bass Strait Islands

Hydro Tasmania through its electricity retailer, Momentum Energy, retails electricity to customers on King Island and Flinders Island. Momentum Energy offers customers with small-scale distributed generation, including solar PV, a 1:1 FiT rate.

The situation on the Bass Strait islands (BSI) is very different to the situation on mainland Tasmania. Electricity supply on the BSI is subsidised by the Tasmanian Government and customer prices are well below the cost of supply. In particular, the retail energy rate paid by customers on the BSI of 26.82c per kWh is below the cost of electricity generation, which is estimated to be above 30c per kWh.

This means that the current 1:1 arrangements represent a FiT that is slightly below the level that would be set as a fair and reasonable rate under the COAG Principles, which would be greater than 30c per kWh. However, this is appropriate given the level of subsidy that BSI customers already enjoy and the fact that these customers do not pay the full cost of supply for electricity consumed.

The existing arrangements on King Island and Flinders Island will therefore be maintained.

Attachment A

Council of Australian Governments' Meeting

Canberra - 7 December 2012

National Principles for Feed-in Tariff Arrangements

Micro generation to receive fair and reasonable value for exported energy

1. Governments agree that residential and small business consumers with grid connected micro generation⁸ should have the right to export energy to the electricity grid and market participants should provide payment for exported electricity which reflects the value of that energy in the relevant electricity market and the relevant electricity network it feeds in to, taking into account the time of day during which energy is exported.

Any premium rate to be jurisdictionally determined, transitional and considered for public funding

2. That any jurisdictional or cooperative decisions to legislate rights for micro generation consumers to receive more than the value of their energy must:
 - a) be a transitional measure (noting that a national emissions trading system will provide increasing support for low emissions technologies), with clearly defined time limits and review thresholds and be closed to new participants by 2014;
 - b) for any new measures, or during any reviews of existing measures, undertake analysis to establish the benefits and costs of any subsidy against the objectives of that subsidy (taking into account other complementary measures in place to support micro generation consumers);
 - c) give explicit consideration to compensation from public funds or specific levies rather than cross-subsidised by energy distributors or retailers; and
 - d) not impose a disproportionate burden on other energy consumers without micro generation.

SCER to ensure fair treatment of micro generation

3. That the Standing Council on Energy and Resources (SCER) should maintain regulatory arrangements for micro generation customers, consistent with the objectives of the relevant electricity legislation, whereby the:
 - a) terms and conditions for compliant micro generation customers should be incorporated into the regulation of the minimum terms and conditions for retail contracts such that they are no less favourable than the terms and conditions for customers without micro generation;
 - b) connection arrangements for micro generation customers should be standardised and simplified to recognise the market power imbalance between micro generation customers and networks; and
 - c) assignment of network tariffs to micro generation consumers should be on the basis that they are treated no less favourably than customers without micro generation but with a similar load on the network.

⁸These national principles apply to grid connected micro generation compliant with the relevant Australian Standard (AS4777).

FiT policy to be consistent with previous COAG agreements (particularly the Australian Energy Market Agreement and COAG complementary principles)

4. That the arrangements for micro generation consumers by SCER and jurisdictions:
 - a) should not deter competition for their business from electricity retailers in jurisdictions where there is full retail contestability and innovation in the tariff offerings available to micro generation customers;
 - b) in relation to jurisdictions in the National Electricity Market (NEM), should not interfere with the regulation of distribution tariffs or operation of the NEM under the National Electricity Law or duplicate the regulatory arrangements that are part of that Law;
 - c) should be subject to independent regulatory oversight according to clear principles; and
 - d) should be consistent with implementation of other intergovernmental agreements relating to energy, competition policy or climate change.

Attachment B

A Fair and Reasonable Feed-in Tariff for Tasmanian Small Customers

Terms of Reference

As the Minister for Finance, pursuant to section 9 of the *Electricity Supply Industry Act 1995*, I hereby require the Tasmanian Economic Regulator to complete a report investigating and recommending to the Government a 'fair and reasonable' value that should be placed on net 'exported' electricity that is fed into the Tasmanian electricity network by residential and small business customers who:

- have a grid-connected renewable (as defined as currently eligible under the Renewable Energy Target scheme) generation system, up to a maximum total installed capacity of 10kW;
- consume less than 150MWh per annum; and
- are located on mainland Tasmania (including Bruny Island).

1) Matters to be considered

In investigating and reporting on the fair and reasonable value of electricity exports from these customers, the Regulator is to take into account:

- the net financial benefits to retailers of exported electricity with respect to retailers' controllable costs, including, but not limited to:
 - the price that the retailer pays for wholesale electricity; and
 - the costs a retailer incurs in running its retail electricity business;
- consistency with the operation of a competitive Tasmanian retail electricity market;
- the principle that feed-in tariffs should not result in any cross-subsidies between customers or customer classes;
- the Commonwealth Government's current carbon pricing arrangements;
- the Council of Australian Governments' National Principles for Feed-in Tariff Arrangements and the concept of 'fair and reasonable' value reflected therein;
- approaches, methodologies, findings and/or recommendations from other jurisdictions the Regulator considers relevant; and
- any other matter the Regulator considers relevant.

The Regulator is also to consider and report on, where it considers it relevant or appropriate:

- any material costs and benefits of micro distributed generation to the Tasmanian transmission and/or distribution networks;
- any other material direct or indirect costs or benefits of micro distributed generation; and
- how any such material costs or benefits identified by the Regulator would be most appropriately captured (for example the potential for different feed-in tariff arrangements based on generation technology and/or grid location).

2) Consultation

The Regulator must undertake such consultation as is considered appropriate.

3) Timing

The Regulator is to complete its investigation and produce its report as soon as is practicable, and no later than by 31 October 2013.