

Australian Solar Round Table
Submission to the
Essential Services commission of South
Australia

2011 DETERMINATION OF SOLAR FEED-IN TARIFF PREMIUM

Summary

ESCOSA's draft report represents a rational approach to understanding the value to Retailers provided by exported Solar PV power. However:

- The combination of the short-term nature of the Solar Feed-In Premium and the end of the current 16c credit would not provide sufficient clarity of the future environment to support effective investment decision making by either industry or prospective system purchasers.
- The proposed Solar Feed-In Premium is not sufficient on its own to encourage the net export of power by system purchasers, which will encourage smaller and less economically efficient systems from October 1st 2013.
- The restricted Terms of Reference for the report results in Retailers being required to pay a rate that recognises the windfall gain they would otherwise receive from exported Solar PV power. However:
 1. Network Operators will receive windfall gains from reduced losses
 2. Electricity consumers across the market will receive the benefit of suppressed wholesale prices
 3. PV system owners will be required to fund the investment that creates benefits for market players but will not receive a fair and reasonable value for the benefits they provide other stakeholders.

The Australian Solar Round Table submits that ensuring a fair and reasonable value is provided to all stakeholders, not just the retailers. By considering the broader stakeholders, policy can be developed which provides significant net financial benefits to South Australia. Addressing this market failure (a market designed for a legacy electricity environment) would be in the best interests of the entire community.

Proper analysis of value and a process for the fair and reasonable distribution of this value will see responsible growth of a Solar PV sector that is self sustaining and generates electricity cost reductions for the broader market.

Fair and Reasonable Value

Using the concept of 'fair' and 'reasonable' value as a basis for setting tariffs is the appropriate approach. It ensures that neither too little nor too much is paid for power produced, while achieving the objectives of the scheme. The rate should be high enough to encourage the desired outcome, whereby specific stakeholders should not be penalized, nor should they make unreasonable profits from the scheme.

In essence, stakeholders should pay a realistic price and receive a realistic value for their role in the scheme. The stakeholders in the solar power production are:

- The Government: implementing the scheme to equitably produce social and environmental outcomes
- Electricity consumers that are Solar PV owners: producing power for their own use and for export to the grid
- Electricity retailers: buying and retailing electricity, including exported Solar PV generated power

- Network Operators: responsible for delivering electricity and meeting service levels
- Electricity consumers without Solar PV: purchasing power from Retailers

ESCOSA's draft report credibly addresses one of the key components in the "fair and reasonable" value equation – the fair value for Retailers, as per its terms of reference. However, by restricting the review process to a fair and reasonable value *for retailers* rather than for all stakeholders in the system the review risks delivering outcomes which are not fair or reasonable for the non-retailer stakeholders.

The value created

As ESCOSA's draft report, and the work done by ACIL Tasman, acknowledges that there is significant additional value generated by solar PV that flows to players other than Retailers.

As outlined in ACIL Tasman's report, there are a number of items of value:

1. The suppression of wholesale prices due to the Merit Order Effect (MOE - see Attachment 1). This is the largest single contributor to the value produced. In summary, electricity produced by Solar PV reduces peaks in wholesale electricity prices. These price reductions flow through to Electricity Retailers and may be passed on to retail customers or captured by the retailers, depending on the competitive pressures in force.

The value of the suppressed wholesale prices is created by the gross amount of Solar PV electricity generated. That is, power generated by Solar PV and consumed onsite suppresses wholesale prices (by reducing peaks) as does electricity exported.

2. Reduction in losses in the network lowers the Network Operator's costs to the whole network. The reductions may be direct (where electricity is consumed at or near the point of production) or indirect (where the overall grid performance is enhanced due to less distribution of electricity).
3. There is some value in the deferral of investment in network infrastructure, though rather than deferring investment, it would be better to focus investment on achieving the right outcomes.

This value is currently "smeared" across participants in the market including all electricity users and network operators – but is created as a result of the investment made by solar PV system owners.

Calculating the Value

Some of the elements of value are easy to quantify - as demonstrated by Merit Order Effect (MOE) studies done previously in South Australia (for wind) as well as by analysis done by the University of Melbourne¹ and in a number of markets internationally.

¹ Retrospective modeling of the merit-order effect on wholesale electricity prices from distributed photovoltaic generation in the Australian National Electricity Market – Melbourne Energy Institute – Attached

The MOE calculates the total value to the market of embedded solar PV production - both the power exported and that consumed “behind the meter”.

Fair and reasonable distribution of the Value

The value is created by a combination of stakeholder actions:

- By the owners of Solar PV systems
- By Network Operators who provide the infrastructure for electricity to be distributed
- By electricity consumers who provide a market for electricity
- By Electricity retailers who provide the financial link between generators and consumers
- The South Australian Government who facilitate the market on behalf of the broader community.

A Fair and Reasonable approach would consider what is fair and reasonable for *all* these stakeholders and establish a process to distribute at least a portion of this value to stakeholders as appropriate to the value they contribute. This is not dissimilar to the approach that is used to distribute network charges.

The Fair and Reasonable outcome would be:

- a) Solar PV system owners receiving a portion of the savings that is reasonable considering the level of investment they have made.
- b) A portion of the value should go to the retailers – and this is provided for in ESCOSAs draft recommendation.
- c) A portion should go to the network operators – and this is happening by default as network operators capture the benefit of losses
- d) A portion should go to consumers by way of reduced electricity prices. ESCOSA’s and ACIL Tasman’s assumption is that happening today, based on competition between retailers.

In order to achieve Fair and Reasonableness for Solar PV system owners, a portion of the value created by the MOE should be allocated and distributed to them. This can should not be such that it creates windfall profits but rather a reasonable return on investment.

The calculation and distribution of the benefits can easily be achieved by using appropriate calculations to estimate and allocate payments – in much the same way as network charges are allocated and the NSLP are used today. A value for exports for Solar PV owners that is similar to the retail price of electricity is likely to be in the range that would allow a fair and reasonable return for all stakeholders to receive.

Attachment 2 discusses the concept and implications of a fair and reasonable value in a broader context.

About the Australian Solar Round Table

The Australian Solar Round Table (the Round Table) is a group of CEOs of Australia's largest and most commercial Solar Energy Companies that has been formed to provide industry leadership, stakeholder education and to earn market confidence for the Residential and Commercial Solar market in Australia. The Round Table was formed in August 2011 and currently represents about 25% of the Australian solar marketplace. Its membership will expand as likeminded CEOs are invited to join.

Currently, the Round Table membership is:

- Jeremy Rich, CEO, Energy Matters
- Simon Schauble, CEO, Nu Energy
- Steve McRae, CEO, Ingenero
- Richard Turner, CEO, ZEN Energy Systems
- Jenny Lu, CEO, Suntech Power Australia
- Zygmunt Nejman, CEO, SMA Technology Australia

The Round Table uses objective, fact-based data to develop and communicate industry strategies and policies that are empathic to the needs of the stakeholders in the industry, Governments and the broader community. Members contribute their resources and experience to establish critical mass and a strong voice.

Dave Holland of Right Angle business Services facilitates the Round Table on behalf of the member CEOs.

Contact

Dave Holland
The Australian Solar Round Table
48 Dover Street
Richmond VIC 3121
Phone: 03 6297 6104
Mobile: 0408 055 171
Email: dholland@rangle.com.au

Attachments

1. Retrospective modeling of the merit-order effect on wholesale electricity prices from distributed photovoltaic generation in the Australian National Electricity Market – Melbourne Energy Institute, September 2011
2. Solar PV makes sense (and dollars) for Australia – Australian Solar Round Table, December 2011