Save Solar Tasmania

and

Alternative Technology Association

Fair feed-in tariffs for Tasmania

A joint submission in response to the Tasmanian Economic Regulator Draft Report of September 2013

2 October 2013

1 Overview

Background

Save Solar Tasmania, in conjunction with the Alternative Technology Association, produced a detailed submission (SST&ATA 2013) in response to the Tasmanian Government's Issues Paper on feed-in tariffs.

In that submission we presented the case for:

- Resolving the metering anomaly that preventing solar PV owners from using their solar generation to offset electricity on their heating tariff.
- Extending the length of time the legacy 1:1 tariff operated in recognition of the investment that homeowners had made in anticipation of a continuing 1:1 tariff.
- Increasing the size of eligible systems from 10 kW to 100 kW for new systems under the future fair and reasonable tariff.
- Broadening the terms of reference of the TER determination so that they took into account the National Electricity Objective and were based on "the long term interests of consumers with regard to price" rather than the current focus on "the net financial benefit to retailers".
- Measures complementary to the FiT to support the development of the industry delivering small and medium scale renewable energy projects in Tasmania.

We are pleased that the first two of these issues have been addressed by the Government.

Unfortunately the core issue of the problems in the Terms of Reference provided to the TER were not addressed by the government and we therefore believe that the current TER process is not in the long term benefit of all Tasmanian electricity consumers.

It is particularly unfortunate that the Terms of Reference of the Draft Report remain based on the narrow and inadequate criterion of "the net financial benefit to retailers" when recent developments have shown that in fact the competitive retail market will not commence on 1 January 2014 as anticipated.

As this submission is a response to the TER determination based on the Terms of Reference set by the government we will not repeat in this submission those arguments which do not directly address questions raised by the TER in the Draft Report of September 2013.

However we believe that there is sufficient latitude in the current Terms of Reference for the TER to set a higher FiT that more accurately reflects the broader benefits of distributed generation to the electricity system and to consumers, without cross subsidy from other consumers or taxpayers.

Summary of recommendations

The TER final determination for the period 1 January 2014 to 30 June 2014 and future FiT determinations should:

- calculate and make available information about a market based price using Tasmania specific information about spot prices in the NEM
- include an allowance for any avoided transmission and distribution costs and charges in setting the FiT
- research the indirect benefits and other impacts of distributed generation in the Tasmanian context so that these will be considered in future FiT determinations

- ensure that full public consultation is part of future FiT determinations in line with assurances given by the Minister
- ensure that the final FiT determination includes installations up to 30kW on three phase connections, consistent with legislation passed on 19 September 2013.
- work with Aurora to identify locations in which a higher feed-in tariff based on location and time of generation would provide cost savings to the transmission or distribution network (and hence all consumers)
- make recommendations on a voluntary time of generation FiT to support installations that provide net benefit to the electricity system by generating at time of maximum demand and higher wholesale prices.

2 Issues on which comment was sought

Issues raised in Chapter 4 – direct impacts

Proposed inclusion of wholesale costs, network losses and NEM fees

We agree that these costs should be included in the FiT determination.

Use of regulated wholesale price versus market price

We agree with the logic of using the regulated wholesale price in determining the default regulated FiT for Tasmania.

However we believe the TER should also calculate and make available information about a market based price using Tasmania specific information about spot prices in the NEM. This would have two benefits:

- Identifying the actual value to the market of Tasmania solar electricity at the time it was generated (including the impact of increased hydro reserves through displaced summer generation) would inform policy debate about the benefit of the solar industry to Tasmania in the long term.
- It would inform retailers who might want to offer solar owners market-related time-of-generation tariffs. This in turn could increase the overall economic benefit of distributed generation to all consumers, not just PV owners. For example solar owners on such a tariff might choose to orient their panels in a more westerly direction to maximise output at times of peak demand and price. It would also facilitate the implementation of storage technologies which could also increase the output from distributed generators at times of peak demand and price.

Exclusion of other impacts

The exclusion of transmission and distribution costs and charges is a serious deficiency in the TER's methodology for determining the FiT and results in cross subsidy from solar owners to other electricity users.

The draft determination acknowledges that solar PV avoids the need for transmission infrastructure:

- "*Conceptually, transmission costs can be avoided through the purchase of excess electricity generated by solar PV systems as less electricity is purchased from large-scale generators and consequently less electricity is transmitted through the transmission system to customers.*" p.16

Despite this acknowledgement, the TER Draft Report excludes these from the FiT determination because of advice from Aurora that "*transmission charges are not avoidable costs to a retailer and*

therefore should not be taken into account when calculating a fair and reasonable FiT" and "*retailers cannot make a financial gain on distribution charges when purchasing and on-selling excess electricity generated by solar PV systems*".

While the "net financial benefit to retailers" is a dominant consideration in the Terms of Reference the TER is also instructed to take into account:

- "*the principle that feed-in tariffs should not result in any cross-subsidies between customers or customer classes*" and
- "*any other matter the Regulator considers relevant*".

If the objective in the long term is an electricity system that "*does not result in any cross-subsidies between … customer classes*" we believe the TER has an obligation to include allowance for all transmission and a significant proportion of distribution charges in setting the FiT.

Issues raised in Chapter 5 – exclusion of indirect impacts

We are not proposing specific changes to the exclusion of indirect impacts discussed in chapter 5 but we do believe that cumulatively these indirect costs are reduced by the generation and consumption of solar electricity and that this should cause the regulator to allocate some notional value to these avoided costs.

We believe that additional research is needed on these impacts so that they can be included in future determinations.

Issues raised in Chapter 6 - implementation

Formula used

We are not proposing a specific formula for calculation of the FiT but believe that the formula proposed by Save Our Solar Tasmania: FiTy = WEPy x MLFy x DLFy + NCAy + AEMOy and the resultant suggested FiT of 21.045 c/kWh is closer to a fair and reasonable FiT than the formula proposed in the TER draft determination and the resultant FiT of 8.282 c/kWh.

Timing and process for updating the FiT

We concur with the suggestion that future FiT determinations should be made annually and coincide with determination of the regulated standing offer prices.

The FiT determination process undertaken by the TER has an important role beyond simply setting a rate in c/kWh that applies to feed-in electricity. It provides valuable information and analysis which should inform both public debate and policy decisions.

We note the assurance given by Minister Bryan Green in Parliament on 19 September that:

> "*I have confirmed this with others today in relation to Save Our Solar that regulations I intend to make under the act will require the regulator to undertake a full and public consultation process*."

3 Additional recommendations

Three phase systems

The Draft Report refers to "a maximum installed capacity of 10kW" however the actual legislation (Electricity Supply Amendment Bill 2013) at section 44G requires the Regulator to set the feed-in tariff for qualifying systems including those which are "for a system that has a 3-phase inverter, a total generation capacity of not more than 30kVA."

The final determination should be for single phase systems up to 10kW and three phase systems up to 30kW consistent with the legislation.

Location dependent tariffs

Tasmania has many situations in which the local value of distributed generation is significantly higher than the averages used in the draft determination. This can be a result of higher distribution losses in serving remote parts of the grid as well as locations in which local generation can avoid or defer the need for grid upgrades.

The terms of reference instruct the Regulator to consider "any material costs and benefits of micro distributed generation" and gives the example of "the potential for different feed-in tariff arrangements based on generation technology and/or grid location". The issue of benefits dependent on grid location is not addressed in the draft determination.

The Draft Report notes an example given by the Queensland Competition Authority in which the suggested range of FiTs was between 7.064 c/kWh and 14.053 c/kWh based just on differential loss factors.

Location dependent FiTs are already operational in Western Australia and in some cases pay up to 30c/kWh based on the value to the network.

An indication of the value of avoided or deferred network augmentation is provided in Aurora and Transend network planning reports. For example the 2010 report of options for upgrading the electricity supply network for Kingston (one of the main area of grid constraint in Tasmania) calculates a value of $232 per annum per kW for reduction of the winter peak in the Kingston area (Aurora Networks 2010, p.22).

In both the Kingston report and a similar 2009 report for the supply to the Hobart Eastern Shore, a variety of reasons are given as to why non-network solutions are not viable, including the inability of renewable sources such as solar PV to reliably reduce peak demand.

While this is true for grid connected PV there are many emerging micro generation possibilities including battery storage and small hydro which could realistically contribute to reductions and delays in network infrastructure costs.

The TER should work with Aurora to identify locations in which a higher feed-in tariff based on location and time of demand would provide cost savings to the network (and hence all consumers).

Based on the above figures it is clear that the benefits of distributed micro generation can be quite substantial in specific locations and at specific times. Identification of these situations and monetising the benefit through a specific FiT would provide an impetus to creative local solutions. The actual total amount paid for these tariffs would be quite small and would produce a net benefit to all electricity consumers. It would have the additional benefit of positioning Tasmania as a leader in creative network solutions based on renewable energy and storage technologies.

Time of generation tariffs

While a flat rate FiT is simple to implement and easy for consumers to understand it does not provide the price signals to distributed generators to encourage them to install infrastructure and run it in a way that provides maximum benefit to the whole electricity supply system.

We therefore believe that the TER should make recommendations on a voluntary time of generation FiT that could be used to support installations that for example:

- orient solar panels in a more westerly direction to maximise generation at time of maximum wholesale price
- store energy and feed it into the grid at time of maximum local demand, particularly in areas with grid constraints.

4 References

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