

# Response to electricity regulator on the report Regulated Feed-in Tariff for Tasmanian Small Customers

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## Executive summary

- a) The report fails to properly account for the role of prosumers, distinct from pure wholesale suppliers or small retail customers.
- b) Prosumers already pay a daily rate towards maintaining and connecting the electricity distribution system.
- c) Because of the state-wide contribution of prosumers, Tasmania is able to sell more electricity through BassLink at a premium rate.
- d) Prosumers therefore contribute an unacknowledged public good.
- e) The Feed in Tariff should remain pegged to the price paid per unit by the prosumer.

## Prosumers

The report divides the electricity market into wholesale generators (producers) and electricity users (consumers). It does not adequately factor in a new category of prosumers – distinct from wholesale generators or purely retail customers.

For wholesale generators, the economics of electricity production involve large plants with investment amortisation over decades. There are relatively few (compared to the number of electricity consumers) and transmission losses/costs form a significant part of the business model.

Prosumers on the other hand have many small generating units, and the electricity produced travels metres rather than kilometres.

## Distribution Network

The residential prosumer pays for electricity taken from the grid (typically 28.283 ¢/kWh at Residential Tariff 31) which includes an element for distribution costs, and ALSO pays a daily Fixed Charge (100.326 ¢/day):

“Fixed Charges consist of meter reading, billing costs, part of the meter capital cost and **some of the costs of maintaining and connecting to the electricity distribution system.**”<sup>1</sup>

The question then arises, should the prosumer pay YET AGAIN for distribution costs of exporting energy to the grid, in the form of a reduced tariff?

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<sup>1</sup> <http://www.auroraenergy.com.au/Your-Home/Electricity/Rates-and-charges/Standard-electricity-rates-and-charges>

The report makes the assumption that prosumers sell electricity to distant wholesalers, and their neighbours buy this same energy from distant wholesalers. In reality, the energy flows are from one house to others along the street.

### **BassLink**

The Basslink Interconnector became fully operational at midnight on April the 28th 2006, commenced transmitting power on 29th April 2006.

Transend reported a surge in electricity exports to the mainland in 2012-13 (The Examiner, 21Sep14, p.12). Mandatory reporting indicates exports of 2953 GWh from 1Apr12 to 31Mar13<sup>2</sup>. This provides evidence that in the face of flat sales of electricity in Tasmania, solar energy was sufficient to help fulfil local demand, leaving an excess to be profitably exported. Transend chief executive Peter Clark acknowledged Transend was managing the business with no real increase in revenue, putting downward pressure on prices for consumers.

In mid-2012, the Australian Energy Market Operator (AEMO) revised its annual forecast for energy demand down by 5 per cent, driven partly by the increased uptake of rooftop solar power as it acts to reduce overall demand.

Federal Energy Minister Martin Ferguson and others agree that this trend of declining demand is suppressing wholesale electricity prices which, roughly speaking, are around half of what they were five years ago.

### **State-wide Prosumer contribution**

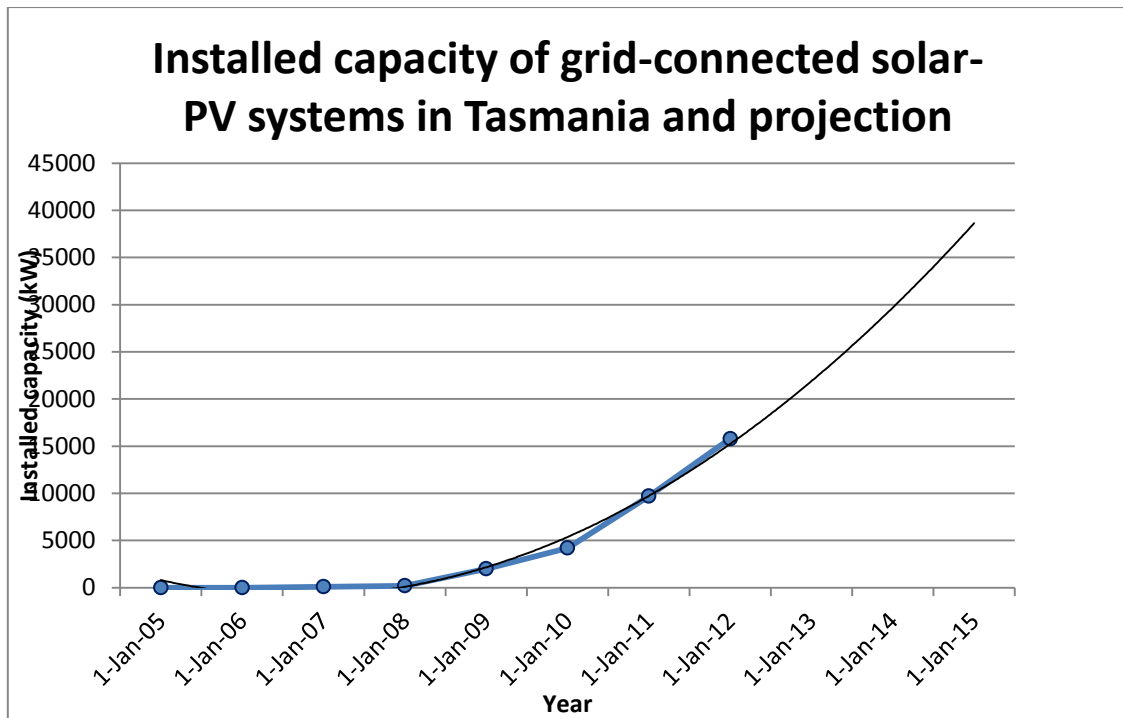
According to data from the Tasmanian Department of infrastructure, energy and resources (DIER)<sup>3</sup>, the installed capacity of grid-connected solar PV systems in Tasmania rose exponentially from mid-2007. A polynomial trend forecast from this data shows that about 22000kW were expected by end of June 2013.

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[http://www.hydro.com.au/system/files/documents/Basslink/ESI\\_compliance/Tas\\_Market\\_Activity\\_Report\\_Oct12.pdf](http://www.hydro.com.au/system/files/documents/Basslink/ESI_compliance/Tas_Market_Activity_Report_Oct12.pdf)

<sup>3</sup> [http://www.dier.tas.gov.au/energy/energy\\_in\\_tasmania#Solar%20Photovoltaics%20%28PV%29](http://www.dier.tas.gov.au/energy/energy_in_tasmania#Solar%20Photovoltaics%20%28PV%29)



Using DIER figures of 3.5kWh generated per day per kW of installed capacity, and assuming 70% is exported from the premises, the total energy supplied by solar-PV systems in financial year 2012-13 would have been:

$$365 \text{ days} \times 18900 \text{ kW} \times 3.5 \text{ kWh} \times 70\% = 16901325 \text{ kWh or } \sim 17 \text{ GWh.}$$

#### Public benefits of prosumers

This nearly 17GWh of energy therefore did not need to come from draw-down of water storages in the state's dams. It provided a safety margin allowing the export of additional high-value (carbon-free) electricity to mainland Australia, to the benefit of Transend (which posted a record profit of \$47.8m in 2012-13).

Not all of this profit can be attributed to prosumers, but they made a contribution.

Engineers Australia<sup>4</sup> has estimated the date on which Tasmania will need additional electricity generation capacity:

Based on an assessment by AEMO, electricity supply in Tasmania will exceed demand until at least 2018/19, which is predicted to be the year when the low reserve condition (LRC) point is reached. The LRC point is the first year that the reserve generation margin is projected to fall below the minimum reserve level, resulting in demand exceeding supply.

Prosumer contributions can therefore help to delay this LRC point.

<sup>4</sup> [https://www.engineersaustralia.org.au/sites/default/files/shado/Infrastructure%20Report%20Cards/Tasmania/part4\\_energy.pdf](https://www.engineersaustralia.org.au/sites/default/files/shado/Infrastructure%20Report%20Cards/Tasmania/part4_energy.pdf)

## **Conclusion**

The report by the office of the Tasmania economic regulator suggests a feed-in tariff of 8.282c per kWh calculated from:

$$\mathbf{FiTy = WEPy \times MLFy \times DLFy + AEMOy}$$

Underlying assumptions include **WEPy** as the wholesale electricity price in c/kWh from the 2013 Standing Offer Determinations. Since domestic solar-PV installations fall outside the concept of wholesale generation upon which this **WEPy** is based, this calculation should not be used to calculate the Feed in Tariff.