

Submission to IPART on Solar Feed in Tariff

Future scope for Feed in Tariffs (FITs)

The FIT for small scale PV generators provides an opportunity for new technologies to be developed. A flat FIT is counter to the utilisation of new technology. IPART's basic function is to facilitate competition rather than to stall the adoption of new technology. Technology now enables small scale PV generators to move from self-consumption including battery storage, hot water, pool heating or pool filtering. The FIT model needs to be open to available technology rather than technology from the 20th century. The proposed simplistic flat FIT is counter to the adoption of new technology and is not futuristic.

Small scale PV generators make financial investment decisions and need to have long term stability of market conditions rather than a three year time frame. The three-year time frame is inhibiting investment decisions in renewable energy for small scale generators. This is because the current costs of solar installations have a cost recovery time frame of 5 years or more. The FIT arrangements should be set around at least equal this investment time frame. Alternatively, if IPART is to insist on a three-year timeframe, then the FIT should be set at levels based upon a three-year investment for cost recovery.

The FIT provides an opportunity for residential PV generators to become part of the sustainable network supply. The poles and wires are largely a sunk cost and the residential PV network makes a significant contribution to system generation especially at peak demand times on sunny days. This role could be recognised by the daily supply charge being reduced to recognise the importance of this role. Hence the FIT should include a daily supply charge reduction component. Such a component would help ensure that residential consumers with battery systems continue to have an active connection to the grid.

Is there a competitive electricity market in NSW?

The IPART report makes the inferred claim that the existing electricity market in NSW is competitive. This is not the case for numerous reasons including the regulatory requirements set by the AEMC. The causes of the lack of competitiveness need to be explored to justify the proposed pricing under the FIT. The large range in daily supply charges coupled with consumer unwillingness to change retailers, suggests the existing market has a serious lack of competitiveness. Attempting to change the FIT without addressing the roots causes of the lack of competitiveness would be poor policy.

The range in fixed daily supply charges by retailers needs to be explored in greater detail to establish whether those retailers are engaging in some form of transfer pricing. To suggest that the current daily charge imposed by different retailers is truly reflective of actual costs when there is such a large variation needs to be investigated. If the objective is to lower the costs of electricity to consumers, then the reasons for the high daily supply charge is part of this analysis. Those consumers who select a retailer with high daily supply charges could be assumed to be subject to excessive charges. The case for IPART to specify maximum daily supply charges provides an opportunity for minimising consumer costs of electricity.

The current residential consumer market includes the widespread availability of off-peak electricity and only a small number of time of use meters. While years ago, the NSW Government acted to impose time of use meters throughout the residential sector, the failure to proceed in that direction has left the household market with a mixed scheme that is supportive of coal fired electricity generation in the form of off-peak electricity. As a result, the existing market is confusing and is sending mixed signals to potential small-scale generators.

Existing market arrangements do not ensure that consumers have maximum flexibility in minimising electricity costs. Price comparisons between different suppliers are not easily able to be made as retailers have offers with a wide range of parameters. Fixed term contracts by definition restrict consumer movement to new retailers. These aspects all point to the existing retail residential electricity market as being in a state of market failure as costs are not being minimised.

Profitability of retailers

Incentives offered to consumers to change to a new retailer (particularly the gentailers) suggest that consumers are not offering lowest cost electricity prices. Offers from retailers of 20% price reductions to change retailers suggests that there is an opportunity for margins to be reduced significantly without loss of profitability. The objective of the IPART process of “not causing a loss to retailers” is equated to ensuring that retailers continue to make substantial profits. As IPART has based its offer for FIT on the proviso that retailers do not suffer a loss of profitability ensures that the margins held by the large retailers are supported at the expense of small scale generators. This is unfair and unjust. The IPART offer is inconsistent with the objective of reducing electricity costs to consumers.

Another distinguishing feature in the retailer sector is that some retailers own fossil fuel generation plants (gentailers) while others do not. Retailer profitability is therefore open to the question of cost transfer between retail costs and electricity generation costs for gentailers. The IPART criteria of setting the FIT so that there is no reduction in profitability is dependent upon the retailer concerned and the assets owned by that retailer. The age of many of the fossil fuel plants has now reached a point where keeping generation plant operational can have substantial costs and the profitability of a given gentailer is compromised by its asset holding operational and maintenance costs. For this reason, the profitability criteria becomes highly subjective and its use should be only secondary.

What IPART has not assessed

Small scale PVs have made a significant contribution to reducing electricity charges in NSW. What is the value of that reduction? Is that value fully paid for under the STC scheme? If there is an unpaid value of small scale PV's, then small scale generators are entitled to further cost recovery. The IPART analysis has not included this assessment.

The IPART assessment has not included any assessment of the increased resilience of the network from the distributed generation and cost savings arising from distributed generation instead of centralised generation.

IPART has not included the health costs imposed on residents around centralised fossil fuel generators. Air pollution from the Hunter Valley power stations causes widespread health costs

extending into the Sydney air shed. Ignorance of health costs does not equate to sound policy formulation.

The IPART assessment has undervalued the environmental costs incurred by the pollution and clean-up costs of coal mines supplying coal fired generators. There are several reasons for this. The NSW EPA load based licencing (LBL) scheme was introduced to ensure that polluters made some payment towards the damage caused to the environment by the emissions from polluters. The EPA has conducted a review of the LBL scheme and determined that the costs imposed are much less than the cost transferred to the environment. IPART has failed to assess the value of this cost transfer in its determination of the FIT.

Another area where pollution costs have not been accounted for is in the clean-up and rehabilitation costs of coal mines. The extent of under allowance for these costs is massive. Disused mines are a cost transfer to future generations. IPART has failed to consider and account for the cost transfer represented by coal mines after mining has ceased. Effective enforcement action on mine closure planning and implementation has been a missing activity in NSW.

The IPART assessment has not included an analysis of the cost of maintaining the current fossil fuel generation capacity into the future. Most of the coal plants in NSW are close to the end of their economic life. Operators of these plants have not set their electricity costs based upon replacement of the existing generating capacity. These operators are expecting the Government to provide a substantial supplement should that be directed to install new coal fired generators. In the past, the NSW Government paid for new fossil fuel generation plant using tax payer funds. This is no longer an option under the privatised electricity generation model. The private operators who purchased the Government owned plants saw the previous capital cost as a sunk cost. The private large scale coal fired generators have not set electricity whole costs at a level which includes an allowance for future electricity generating costs as a capital expenditure. It is essential that electricity charges include an allowance for the replacement cost of generation capacity under the privatised electricity model. The proposed FIT of 8c/kWh "charge" to retailers from small scale solar generators does not reflect replacement generation capacity cost. If the electricity wholesale cost was set to 8c/kWh, there would be no future investment in electricity generation.

The IPART assessment has not included the increasing incidence of major failures of coal fired generator plants nearing their end of life. This is likely to be a larger issue in the future. Because plant failures are unexpected, the impact on supply reliability can be substantial. There is an opportunity for the FIT to be developed around the need to supply electricity at short notice. Small scale solar could make a significant contribution if the FIT was developed to cater for the dynamic of the electricity supply situation. The proposal based upon the "average/day" provides no opportunity for this form of generation capacity to be extended in the future.

Averages and technological change

The IPART proposal seems to be tied to the concept of "averages" which is not consistent with the dynamic and responsive electricity supply network. Responses must be made in minutes and even seconds to satisfy system reliability requirements. The approach to the FIT must be driven by system reliability objectives. Technology in electricity supply systems is changing and will become more so in the future. "Average per day" is not a forward descriptor for the future. Probability and statistics are

the more appropriate tools to use in the future. For this reason, the proposed FIT based upon an “average/day” is backward looking and hostile to technological change. It is time that IPART became nuanced around evolving technology. The proposed FIT needs to incorporate the dynamic of electricity generation and that means it must incorporate flexibility and reflect generation dynamic supply and demand (in seconds or minutes) not the “average/day.” Small scale technology is available to make almost instantaneous decisions on solar generation feeds and bears no relationship with the “average/day.” Small scale battery systems and the future growth of electric motor vehicles opens up these battery systems for meeting network peak electricity demand. The setting of a FIT based upon “average/day” is inconsistent with the need for a responsive electricity market. The setting up of the FIT must be based on facilitating a dynamic electricity market to ensure that supply equates with demand at the lowest possible cost. A FIT based upon “average/day” is out of step with this objective.

Comment sought	Comment
1 Do you agree with our overall approach to setting a benchmark range for solar feed-in tariffs? If not, why not? 18	No. See above.
2 What is the best way of setting a benchmark that reflects the average value of solar exports across a day? How should a benchmark range be set to reflect the value of solar exports at different times across the day? 18	Averages are not accepted.
3 Do you agree with our existing approach to forecast average wholesale electricity spot prices using a 40-day average of ASX baseload electricity contract prices and assuming a contract premium of 5%? If not, please provide evidence to support your views. 21	Do not agree. Technology makes this inappropriate.
4 Do you agree with our preliminary view that historical data provides the best source of information on future patterns of wholesale electricity prices? 28	Disagree as changes are taking place.
5 How much historical data should we account for when estimating solar multipliers, and which point in the solar multiplier distribution should we use? 28	
6 What is the minimum number of years that we should consider using to incorporate the Essential and Endeavour solar export data? 30	
7 Are there any other improvements we can make to our approach for calculating the wholesale market value of solar exports? 31	Use 3-year investment return for consumer profitability.