

Clean Energy Council submission to the IPART 2014/15 review of solar feed-in tariffs

Executive Summary

The New South Wales approach to feed-in tariffs does not support a competitive electricity market.

When vertically-integrated electricity generator / retailers ('gentailers') have the power to set tariffs they have the power to exclude their competition. This is not conducive to a competitive electricity market.

It is noted that the terms of reference for this review specifically prevent IPART from considering whether to establish mandatory feed-in tariffs for PV customers outside the Solar Bonus Scheme. Accordingly, this submission does not call on IPART to establish a mandatory feed-in tariff. It simply requests that IPART consider whether the approach of allowing gentailers to set feed-in tariffs is conducive to an efficient and competitive electricity market.

Solar systems with energy storage can compete to supply electricity reliably at critical peak periods. The right regulatory framework will reduce peak demand, encourage efficient investment and reduce the cost of system augmentation – all of which will deliver lower electricity costs.

To ensure that this review contributes to a more competitive electricity market in NSW IPART should:

- Recognise the benefits of distributed generation and storage and that aligning incentives with costs and benefits will encourage efficient investment and reduce electricity costs for everyone.
- Consider what steps (other than regulation, which is precluded by the terms of reference) would encourage gentailers in NSW to offer benefit-reflective feed-in tariffs.

Benefit-reflective feed-in tariffs

The days of incentive-based feed-in tariff offers are behind us. Australia's solar industry does not seek a return to the days of 1:1 feed-in tariffs. All we seek is the right to compete at a fair price. Competing at a fair price means that retailers should pay a benefit-reflective feed-in tariff. A benefit reflective feed-in tariff would be:

- technology-neutral;
- time-varying and would include a critical peak payment; and
- (ideally) location-specific.

Efficient pricing will provide an incentive for investment where it will be most economically beneficial. The potential benefits of distributed generation are currently being realised to only a limited extent. Aligning electricity prices and feed-in tariffs with the costs and benefits that customers generate will enable greater economic benefits from distributed generation. This will ultimately reduce costs for all customers and across the entire economy.

Why benefit-reflective feed-in tariffs matter

A framework to ensure competitive, benefit-reflective feed-in tariffs will reduce costs for all consumers and will drive innovation and industry development.

Distributed generation and storage can deliver significant economic benefits through the avoided costs of distribution network capacity augmentation. Embedded generation can be a substitute for capacity augmentation that would otherwise be required to meet an increase in demand in a given locality from additional production by central generators (ACIL Tasman, 2012).

Efficient investment in distributed generation and storage will improve competitiveness, efficiency and productivity by reducing electricity costs. Electricity costs will be reduced by smoothing the consumption profile (reducing 'peakiness'), which reduces the need for expensive electricity at peak times and the need for extra investment in poles, wires and transformers. The Productivity Commission (2013) noted that,

“In New South Wales, peak demand events occurring for less than 40 hours per year (or less than 1 per cent of the time) account for around 25 per cent of retail electricity bills.”

Distributed generation, distributed storage, improved energy management capability and improved metering can together make a very significant contribution to reducing electricity costs by:

- Reducing average wholesale electricity prices;
- Reducing wholesale electricity prices at critical peak periods;
- Reducing transmission losses;
- Enabling deferment or avoidance of investment in network augmentation; and
- Contributing to network management and grid stability.

Benefit-reflective feed-in tariffs for distributed generation and storage will spread the electricity load more evenly and this will improve network utilisation, manage growth in peak demand, and avoid spending millions of dollars on asset augmentation that customers would ultimately have paid for through their bills.

Network costs are around forty to fifty per cent of an average household's electricity bill, so any cost pressures on the network have a major impact on people. The Productivity Commission has noted that distributed generation can relieve network congestion, meet peak demand and improve system reliability, thereby avoiding or deferring network investment. However, the absence of a benefit-reflective incentive for distributed generation has limited the economic benefits of distributed generation “as existing time-

invariant tariffs do not encourage householders to orient units to the west to maximise generation in periods of peak demand late in the summer afternoon” (Productivity Commission, 2013).

A report released by the Victorian Government in 2013 (Langham et al, 2011) indicated that distributed generation,

“was found to save consumers \$437 million per annum relative to BAU, more than half of which was due to reduced expenditure on electricity delivery (networks)”

Support for benefit-reflective feed-in tariffs

A number of regulators, governments and independent economic analysts have recognised the value of distributed generation and storage and the potential for greater economic benefits if financial incentives for individuals encourage investment that will deliver economic benefits for all.

The Council of Australian Governments (COAG) and the Productivity Commission have recommended greater attention be paid to feed-in tariffs that are higher during periods when electricity value is highest. The purpose of price structures of this kind would be to improve incentives to maximise distributed generation exports when its system-wide value is highest.

The Productivity Commission (2013) recommended that state and territory governments should “change the feed-in tariffs for any uncontracted small-scale distributed generators exporting power into the grid, so that their tariffs reflect the wholesale market prices at the time of energy production, and the (net) value to network businesses from reducing loads on their equipment at critical peak periods”.

In its recent review of demand-side participation in the National Electricity Market (NEM) the Australian Energy Markets Commission (AEMC, 2012) recommended that, “consideration be given to the ability of time varying tariffs to encourage owners of distributed generation assets to maximise export of power during peak demand periods”.

The VCEC (2012) expressed a similar view, noting that “adopting time-of-use pricing is desirable, because it provides a stronger economic signal to distributed generators of the value of production when overall electricity demand is high”.

The Victoria Government has also recognised the merits of a time-varying feed-in tariff. The Essential Services Commission (ESC) has recommended consideration of a time-of-use feed-in tariff structure for the ESC’s review of the minimum feed-in tariff for 2015.

Distributed generators should be able to compete on fair terms for supply of electricity during critical peak periods when the system is under strain and the power is most needed. To maximise the benefits of distributed generation this would require a high feed-in tariff payment (commensurate with the prevailing wholesale electricity price) to be available during critical peak periods. By opening up competition to power supply during critical peak periods, the financial savings in poles and wires investment will be maximised.

Gentailers have not and will not offer benefit-reflective feed-in tariffs

Extreme peak price events make a significant contribution to the revenues of all generators. With the right incentives they could be particularly important for solar generators. A study by Riesz et al (2011) has indicated that if solar generators were paid the wholesale electricity pool price they would receive, on average, 12% of their annual revenue on the highest single day and 40% of their annual revenue on the highest 20 days.

It is not in gentailers' financial interest to open up competition for the supply of electricity at critical peak periods.

In 2012 IPART determined that the benchmark rate for the electricity fed into the grid by owners of solar PV systems was 7.7 to 12.9 cents per kWh. As stated in its report (IPART, 2012) on solar feed-in tariffs, "The upper bound of our benchmark fair and reasonable feed-in tariff reflects the financial gain to Standard Retailers for regulated PV customers".

The majority of NSW gentailers offer a feed-in tariff of zero. Not one is paying the amount that IPART has determined is the financial gain to Standard Retailers. No electricity retailers in NSW offer a time-varying FiT.

No gentailer in NSW has yet offered a benefit-reflective feed-in tariff and it is highly unlikely that any NSW gentailer would ever do so voluntarily - because it would not be in its financial interest to do so.

Support for regulation of feed-in tariffs

The purpose of the regulation of FiTs is to ensure that all customers that are small embedded renewable generators have access to an efficient and fair price for exported electricity (DTF, 2012). That is, prices that reflect the economic value of those electricity exports, without cross subsidies between those electricity customers that generate electricity and those that do not (VCEC, 2012).

In recent years a number of reports and reviews have acknowledged desirability of regulating for feed-in tariffs that are technology-neutral, time-varying and location-specific. In 2008, the Council of Australian Governments (COAG) agreed that all new FiT schemes would conform to a set of national principles and these principles would also be used in reviewing existing schemes. Among these principles are the following (emphasis added):

- Residential and small business renewable energy generators should have the right to export energy to the electricity grid and market participants ***should be required to pay*** for that exported power at a price at least equal to the value of that energy in the relevant electricity market and the relevant electricity network it feeds into, ***taking into account the time of day*** during which energy is exported.
- ***The terms and conditions for small renewable generators should be incorporated into the overall regulation of the minimum terms and conditions for retail contracts*** so that charges for purchasing electricity and other terms and conditions are no less favourable than those for customers without small renewables.

Feed-in tariffs should be based on the system-wide economic benefits of distributed generation and storage and not merely the financial benefits that may be enjoyed by an electricity retailer. The Essential Services Commission (ESC, 2013b) has outlined the limitations of basing a feed-in tariff on the financial benefits enjoyed by electricity retailers, stating that,

“One limitation of this approach is that it is contingent on the structure of financial settlements in the wholesale electricity pool and of transactions between retailers and distributors or other input suppliers... the structure of transactions between retailers and distributors may not yet fully reflect principles established or proposed by relevant regulatory agencies. For example, the Australian Energy Market Commission has stated that there remain shortcomings in the existing arrangements relating to passing-on avoided Transmission Use-of-System charges to embedded generators under the National Electricity Rules. The Productivity Commission has recommended changes to the arrangements by which embedded generators are reimbursed by network businesses for savings in network costs.”

Victoria’s Essential Services Commission (ESC) and the South Australian Essential Services Commission (ESCoSA) have both recently considered proposals to deregulate feed-in tariffs and both decided against the proposal. ESCoSA CEO Paul Kerin said,

“ESCoSA considered whether it should continue to set a *minimum* R-FiT amount at all, particularly in light of the SA Government’s deregulation of the overall electricity retail market. Having examined the available evidence, ESCoSA determined that it is appropriate to set a *minimum* R-FiT amount for at least one more year, primarily because there is uncertainty about how competitive the market for PV customers would be – and therefore whether PV customers would receive fair value for fed-in electricity – in the absence of a *minimum* R-FiT amount”.

Establishing a legal and regulatory framework to enable efficient, competitive markets is a critical role for government. Government needs to protect the rights of distributed generators to compete in an electricity market that is fair and open.

The Productivity Commission (2013) has noted that the role of the NSW Government as owner of generation and distribution assets has the potential to conflict with its role as maker of policies governing the NSW electricity sector. The NSW Government stands to financially benefit either from dividends from generation and distribution assets or from the sale price if those assets are ultimately sold. There will be a natural, built-in bias on the part of the government toward protecting the financial value and potential sale price of its assets. Governments must resist the temptation to regulate in ways that improve their financial position at the expense of economic efficiency.

Genuine competition by distributed generation and storage for supply of power at critical peak periods could reduce the price received for NSW’s distribution and generation assets, if they are ultimately privatised. There may be a marginal financial advantage for the Government to limit the ability of distributed generators to compete for supply of power at critical peak periods. However, constraining competition in this way would be short-sighted.

Policies should be made with a view to the long term economic benefit of all consumers, and not the short term financial interests of the distribution businesses.

The Productivity Commission has outlined the benefits of an efficient approach to regulating feed-in tariffs and has demonstrated that it is in the interests of all consumers for feed-in tariffs to be time-varying and location-specific. The NSW experience demonstrates that if gentailers are allowed to set their own feed-in tariffs they will not offer feed-in tariffs that are “at least equal to the value of that energy in the relevant electricity market and the relevant electricity network it feeds into, **taking into account the time of day** during which energy is exported”.

IPART should undertake a cost-benefit analysis of feed-in tariff deregulation and compare that with the costs and benefits of the approach recommended by the Productivity Commission. CEC anticipates that such analysis, if it were undertaken, would show that the approach recommended by the Productivity Commission would be more efficient, support a more competitive electricity market and would be of greater benefit to all consumers. Without such analysis, it is difficult to understand how the NSW Government could conclude that its approach is economically superior to the policy proposals of the Productivity Commission.

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