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Mr Nathan Petrus
Director - Pricing and Analysis
Essential Services Commission of SA
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Determination of Solar Feed-in Tariff Premium - Issues Paper

Dear Mr Petrus

Origin Energy Retail Limited (Origin) welcomes this opportunity to comment on the issues paper on the determination of the solar feed-in tariff (FIT) premium issued by the Essential Services Commission (the Commission). As a significant retailer of electricity in South Australia, as well as a retailer and installer of solar photovoltaic (PV) systems in the state, Origin is very interested in the outcome of the Commission's work in this area.

Origin has recently submitted on the issues paper released by the Independent Pricing and Regulatory Tribunal (IPART) on feed-in tariff issues in New South Wales. A number of the comments made in that response are repeated in this submission.¹

As an electricity retailer and installer of solar PV systems, Origin has followed the development of a number of FIT schemes across the National Electricity Market (NEM). Along with the Energy Retailers Association (ERA), and other retailers, Origin has asked for national consistency with respect to feed-in tariffs for a number of years. Now that the original schemes in a number of jurisdictions are being wound up or significantly reduced in terms of the quantum of subsidy offered, Origin is concerned there will be a proliferation of further transitional FIT schemes adding to complexity in customer management and retailer billing systems.

In relation to South Australia, Origin does not support the imposition of a regulated minimum FIT (the FIT premium). While we acknowledge that a regulated FIT premium aimed at reflecting fair and reasonable value to a retailer is now legislated, we believe this approach:

- Will distort competition among retailers by making solar PV customers less attractive depending on the view particular retailers adopt;
- Increases the compliance and regulatory burden in South Australia (compounding the proliferation of FIT schemes nationally as described above);
- Reduces retailer incentives to compete on the value of any premium FIT offered to customers; and

¹ See: <http://www.ipart.nsw.gov.au/files/Submission%20-%20Solar%20feed-in%20tariffs%20-%20Origin%20Energy%20-%2012%20September%202011%20-%20Website%20version.PDF>



- Reflects a second-best outcome given the voluntary FIT premiums funded by retailers at present; it is unlikely that an amount determined by the Commission will precisely reflect outcomes currently occurring in the competitive market.

Given the legislative constraints now in place in South Australia, we believe any mandated FIT premium should be set at a sufficiently modest level to support continued competition among retailers for any additional amount paid. Second-guessing the market value of feed-in energy to individual retailers will inevitably result in regulation that will negatively impact on competition in the South Australian retail electricity market. We respond to specific matters raised in the issues paper below.

What is the most appropriate method to calculate the fair and reasonable value to a retailer of electricity fed into the network by solar PV systems?

Since there is no evidence of market failure, the optimal method to determine a fair and reasonable value is through competition among electricity retailers. Since this possibility has been excluded by legislation, a light-handed approach would be appropriate.

Box 1: Mimicking competitive market outcomes

The Commission, in meeting the requirement to determine an amount payable by retailers for feed-in electricity could apply a light-handed approach whereby:

- A minimum contribution could be determined by seeking price offers from licensed SA electricity retailers on an annual basis.
- ESCOSA might take a lower-band (or the lowest) of these offers to establish the regulated price floor in addition to the 16 cent per kWh rate required until 1 October 2013.
- No retailer could reasonably nominate a zero amount, since there is an obligation to ascribe a minimum value to electricity exported to the distribution network.
- This approach would preserve the ability for retailers to compete above the price floor, and would improve the effectiveness of competition by reducing the risk that some retailers may not market to customers with solar PV systems should the FIT premium be set too high. It also has the advantage of administrative simplicity.

The concept of ‘fair and reasonable’ is not meaningful when applied to diverse retailers with varying commercial goals and objectives. As such, Origin would urge the Commission to adopt a light-handed approach similar to that described above.

How should the variability in the value of energy be reflected in the approach that the Commission takes in determining a FIT premium?

Should the value be linked to wholesale electricity prices? If so, how?

Are there any other approaches to determining the value of energy exported from solar PV systems?



Origin notes the comment that customers who feed electricity into the distribution network during peak times may be considered more valuable to electricity retailers. While this seems a reasonable statement, a number of factors mitigate against it (and the value to a retailer of feed-in energy generally):

- At the time of acquisition, a retailer does not have visibility of how much or when electricity is being exported to the distribution network.
- The vast majority of customer sites in South Australia are fitted with basic accumulation meters. As such, there is no means of determining the distribution of export electricity and how much is being sent to the grid during peak times.
- Given the presence of basic metering, the retailer does not receive the value of peak electricity when the Australian Energy Market Operator (AEMO) settles the South Australian region of the National Electricity Market (NEM). This is the case for both first and second-tier retailers.
- Retailers are unable to rely upon electricity exported to the distribution network during peak times as a means of mitigating high spot market prices (if in fact they need to given their approach to risk management). The electricity generated and sent to the grid on a net basis is non-firm, significantly diminishing any value it has in the wholesale market.

Since there is a limited number of customer sites with interval metering installed in South Australia, it is not possible to accurately measure or value export electricity and its variability in the wholesale market (if this to be applied as a benchmark to measure the value of energy).

Origin does not believe an explicit link to wholesale electricity prices is possible given the lack of granular data, the non-firm nature of electricity exported and the difficulty involved in valuing solar PV on an intraday or even seasonal basis. Furthermore, there are a number of possible markets that a premium FIT could be referenced to (over the counter contract markets, the NEM, bilateral agreements and so on). This further complicates any reasonable wholesale market comparison, as each retailer will rely on these markets in varying proportions of their own choosing.

A light-handed approach that avoids complicated, ongoing analysis of wholesale markets (assuming granular settlement data was available) is suggested in Box 1 above. The task of determining a price for export electricity is simplified where retailers as buyers of this energy reveal their valuation through competitive tension.

Are there any other potential costs or benefits to retailers from solar PV exports?

How should the Commission quantify these costs or benefits in the derivation of a FIT premium?

Indirect benefits

IPART put similar questions in their recent issues paper on fair and reasonable FITs. Solar PV exports to the grid have a similar impact on spot market prices as energy efficiency; as a demand-side management activity, they lower the spot market price from a level that it otherwise might have been. This benefit however is difficult to calculate (no counterfactual price to compare outcomes with) and to the extent one retailer has a



large number of customers feeding electricity into the distribution network, its competitors will benefit indirectly through lower spot prices (again, if this is of value to them), creating a free-rider effect.

Origin would note however, that even with penetration at 10% of South Australian households, the impact on spot market electricity prices is likely to be modest. The measurement and allocation of this benefit is difficult to determine on a fair and reasonable basis due lack of visibility of the timing of embedded generation dispatch to the distribution network.

Costs

There are additional costs involved in serving customers with feed-in tariffs. These costs derive from:

- Inconsistent feed-in tariff policies and processes across various jurisdictions, leading to increased training, billing system, contact centre and business-to-business costs.
- Unrealistic expectations of consumers and lack of understanding of the impact that solar PV will have upon residential (in particular) electricity costs over time. This issue is at times promoted by organisations that have nothing to do with electricity retailing and have no accountability for the ongoing management of the electricity generated or the customer issues that arise.
- The high number of installations across the NEM states in the past few years has tested the resources of both retail and distribution businesses. Resources have been diverted from their normal use to manage customer issues and complaints. This of course impacts on non-solar PV customers also.

Regulation of electricity prices in South Australia do not account for these issues which add to the cost to serve for all retailers.

Quantifying these additional costs and benefits is difficult (particularly in the case of indirect benefits). Origin does not believe an extensive analytical effort is justified or required in the Commission's task to establish a FIT premium, as the cost of doing so will certainly outweigh any benefit. We would again encourage the Commission to instead consider the light-handed approach described in Box 1 above.

Should the FIT premium incorporate the benefits of any avoided loss factors?

Origin doubts a meaningful assessment of distribution loss factors can be undertaken that would confidently support a dollar per kilowatt hour valuation to be included in a fair and reasonable FIT. ETSA's distribution network has loss factors between 6 and 7%.² Any reduction in this figure due to export electricity from solar PV generation would be marginal. Average annual spot market prices in South Australia were around \$33/MWh in the 2010-11 financial year.³

²See for example Energeia (2011), 'Review of ETSA Utilities proposed Distribution Loss Factors for 2011-2012', page 6

<http://www.aer.gov.au/content/item.phtml?itemId=744425&nodeId=3920dff90a0fb27fdbd759222de8f2d2&fn=ETSA%20Utilities%20-%20Distribution%20Loss%20Factors-%20Certification%202011-12.pdf>

³ AEMO (2011), http://www.aemo.com.au/data/avg_price/averageprice_main.shtml



Based on a spot market valuation, distribution losses on an energy basis are around \$2/MWh. While this value may vary significantly in different parts of ETSA's network, it more than likely that any location-specific allocation of reduced losses by retailer will be a costly exercise with limited return in an assessment of embedded generators with less than 10kW of capacity.

Should some of the benefits to retailers be shared with all electricity customers, or just those customers with a solar PV system?

Origin believes that there is effective competition in place in the South Australian retail electricity market. As such, to the extent benefits that may arise from electricity exported into the grid by solar PV customers are not shared in some way, withholding any benefit will result in customers transferring to other retailers who will share it. Explicitly identifying and sharing benefits however is again likely to result in the cost of the exercise of determination exceeding any benefit, given the materiality of any benefits from reduced wholesale market costs.

Does the level of the current voluntary FIT premium on offer from some retailers in SA accurately represent the value of energy to that retailer?

As one of the retailers volunteering a FIT premium at present, Origin believes that our offer reflects the value of electricity as a retailer. That a voluntary FIT is offered in SA by retailers demonstrates that there is no market failure. Given the non-firm nature of exported electricity from small solar PV systems, the difficulty in allocating the value of this generation in the wholesale market and the uncertain impact on network costs and benefits (including transmission), Origin believes intervening to determine a price in these circumstances will result in higher cost than any benefits intervention may deliver, particularly given the market supports a voluntary FIT today.

Should residential customers have a different FIT premium to business customers?

How should the FIT be updated over time?

What are the implications of setting the FIT premium too high or too low? How would this impact on competition in the retail market, particularly competition for solar PV customers?

Origin does not believe complexity in any regulated minimum FIT premium is desirable. This includes differentiation on the basis of customer size, type, location and frequency of tariff change. Significant operating costs are already borne by retailers across all NEM jurisdictions, managing up to three or four FIT schemes at various stages of their life-cycles. To further add to this complexity will simply increase costs for all consumers.



In terms of updating the FIT premium over time, Origin would urge the Commission to apply an approach (similar to that suggested in box 1 above) that takes into account retailer valuations of electricity exported to the grid from small solar PV generators. Based on the valuations provided to the Commission, a floor to the FIT premium can be set, above which, retailers can continue to compete by offering a variety of FIT premiums. This update should occur no more frequently than annually.

Setting the FIT premium too high will simply result in reduced competition for small solar PV customers in the retail electricity market.

Summary

Origin is concerned about the impact on competition and increase in cost that may occur if the Commission determines that extensive intervention is necessary to meet the legislative requirements under the Electricity Act. While we understand the Commission is required to undertake a review, we maintain there is an existing market for voluntary FITs in South Australia. As such, Origin believes that the outcome of this review should produce a regulatory response that recognises the voluntary contributions currently made in the competitive retail market.

Origin would welcome further discussion of the matters raised in this response. Please contact David Calder (Regulatory Strategy Manager) on (03) 8665 7712 in the first instance.

Yours sincerely

[SIGNED]

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Retail