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Ms Anna Collyer
Chair
Australian Energy Market Commission

Draft Determination: Access, pricing and incentive arrangements for distributed energy resources

Dear Anna

Thank you for the opportunity to provide a submission in strong support of the Australian Energy Market Commission's (AEMC) Draft Determination (EERC0311/RRC0039) concerning access, pricing and incentive arrangements for distributed energy resources.

Energy Consumers Australia (ECA) is the the national voice for residential and small business energy consumers. Established by the Council of Australian Governments (COAG) Energy Council (the Energy Council) in 2015, our objective is to promote the long-term interests of energy consumers with respect to price, quality, reliability, safety and security of supply.

We were part of the Distributed Energy Integration Program Access and Pricing Working Group (the Working Group). Since August 2019 this Working Group has collaborated with stakeholders to develop a suite of consumer-centred, equitable, affordable and efficient access and pricing reforms, to address the emerging challenges of consumers participating in generating, storing and trading electricity and optimise the opportunities for all consumers. The report of the outcomes of the Working Group is available here.

This is the context in which we have considered the draft package of reforms.

The case for the proposed package of reforms

Today there are almost 3 million consumers with rooftop solar installed in their homes, connected to the electricity distribution network. This is expected to double to 6 million in the next decade, which could represent approximately 50-60% of Australian homes.

We are also seeing consumers increase the capacity of their systems, as the costs of solar have fallen. This was illustrated recently in comments by Professor Martin Green who predicted that predicted that the average Australian solar household will soon be installing "tens of kilowatts" on their rooftops, probably coupled with battery storage, as panel costs continue to fall and batteries becomes more affordable.[1]

[1] See reports of Professor Green's remarks here.

This scale of current and expected consumer investment in solar creates the opportunity to go beyond today's simple feed-in tariffs, and uncontrolled generation, to more fully rewarding consumers for making this generation available in locations and at times when it has the most value as part of the electricity system.

There will be a need for additional capacity on the electricity distribution network to accommodate greater levels of solar generation. At any given time the capacity of the electricity distribution network is fixed. Just as additional investment was required to meet the demand on the hottest days that grew rapidly with the use of air-conditioners in homes, so too will electricity distribution network capacity need to be sized to meet the maximum generation at any one time. The expected growth in generation located in the electricity distribution network – whether that be rooftop solar or solar installations in schools, hospitals or local shopping centres – all requires more investment in capacity. All other things being equal that additional capacity will be less, where generation can be stored rather than simply being exported into the electricity distribution network at maximum levels that are dictated by weather conditions.

In the absence of the rule change, the additional investment in electricity distribution network capacity would need to be recovered from all consumers based on the amount (and timing) of electricity supplied to them from centralised generation. Clearly this creates an inequity for those Australians that cannot access either rooftop solar (or home energy storage) – noting that some 35% of Australians on average are renters, and some 30% do not live in detached housing. If the many consumers who are locked out of solar are faced with rising electricity distribution network costs, it is reasonable to expect that in their engagement with electricity distribution networks and the Australian Energy Regulator (AER) on revenue determinations they could argue for limited or no additional investment in capacity. The result would be a continuation of what is currently being experienced, with electricity distribution networks imposing limits on the export of solar generation, and under-utilised rooftop solar generation capacity.

Energy Consumers Australia supports the draft determination as it provides a sustainable solution that:

- enables the electricity distribution network capacity to expand in response to the demands of consumers who are investing in solar, with the costs of providing the export service paid for by those who use it;
- potentially increases the financial returns to consumers with solar because the installed solar capacity is being fully utilised when it has its greatest value; and
- creates incentives for managing generation through smart controls, home energy storage or local energy storage (as a service) solutions.

Proposed improvements to enable consumer choice

Energy Consumers Australia supprts the proposed modification to the package of reforms, being put forward by the Total Environment Centre and the Australian Council of Social Services.

These proposed changes would offer existing and new customers investing in solar the option of an export limit or being charged for the use of the export service that will now be required to be provided by the electricity distribution network.

Consumers could then make a choice of which option would be best for their particular circumstances. For example consumers with smaller systems or consuming most of their generation may prefer an export limit, while consumers with larger systems may choose a tariff so that they can maximise their financial returns.

Requiring that the export limit is set at above zero provides consumers with solar with a more genuine choice, with the limit being arrived at in the process of the electricity distribution network providing information on the available capacity across the entire electricity distribution network (as discussed below in relation to the Export Tariff Guideline to be developed by the AER).

Consumer preferences to guide retail pricing options

The draft determination establishes a process by which electricity distribution networks will engage with their customers and other stakeholders, through the Tariff Structure Statement which is part of the five-year revenue determination process.

We need to consider both how consumers will engage with price signals, or have intermediaries do so on their behalf with the emergence of "virtual power plants" that aggregate and dispatch the generation available from rooftop solar, home energy storage and local storage.

Currently consumers have very little experience of retail price signals for consumption. Where they do have smart meters, many continue to be charged at a flat rate reflecting decisions by retailers about the ability to offer a value proposition that consumers will find appealing.

The experience of engagement by electricity distribution networks with stakeholders on proposals for more cost-reflective tariff structures - while positive in some aspects - has left consumers uncertain and lacking evidence about the distributional impacts. As a result, there is a concern with the potential harms, and the inability of consumers to mitigate such harm, and a sense that no party is accountable for the consumer outcomes.

We have also learned that consumers are not at all interested in kilowatt hours, or kilowatts and that even were this to be the case, it takes considerable effort to connect the use of appliances to the bill impacts. We have seen that the solar and home energy storage industry focusses on financial returns or bills, and the opportunity for clean energy and independence, in its communications rather than the quantity of metered units.

We need to bring these lessons into the consideration of retail export pricing, and how they are both explained and introduced to consumers. While the Tariff Structure Statement (TSS) process can be used to explore efficient export tariff design questions – and potentially through trials bring evidence of the potential outcomes in practice – there is a need for a earlier and broader engagement around what form of pricing consumers may prefer, and that they can understand and respond to.

This could be led by the AER, prior to or concurrent with the development of the proposed Export Tariff Guideline, and would provide a foundation for consumer advocacy organisations subsequent engagement with the electricity distribution networks. We would see this process as establishing the various tariff options, and retail offers, that consumers should be able to opt-in that could include:

- a minimum export limit at no charge;
- a choice of an export level above the minimum at a fixed "flat" rate (a subscription tariff); or
- more dynamic export tariffs, varying by time and location.

Current retail feed-in tariffs are rates based on the quantity of energy supplied. It remains to be worked through how retail offers will signal both the value of the generation, and signal available capacity on the network, which is usually expressed as a kilowatt charge. Again, this should be resolved in the context of the AER's development of the Export Tariff Guideline, and not left as a matter that becomes contentious in successive rounds of revenue determinations and TSS processes.

Fit-for-purpose electricity distribution network pricing methodologies

We understand from the AER that they expect that as part of the proposed Export Tariff Guideline, electricity distribution networks will be required to demonstrate the need for export tariffs and how the proposed tariff are linked to the incremental cost of providing additional capacity to meet the demand for export. In this context, we strongy support the need for a review of the current pricing methodologies within the National Electricity Rules as they were developed at a time when additional capacity was expected to be required to meet rising maximum demand, and in the absence of consideration of "two-way" pricing.

We have also seen widely different approaches to estimating and applying long run marginal cost, differences in tariff structures and approaches to allocating sunk costs. These are matters that should be addressed before the next round of engagement on Tariff Structure Statements, and if needed more fit-for-purpose principles and their implications for choices of tariff structures agreed.

Further engagement with Energy Consumers Australia

Energy Consumers Australia regularly surveys consumers as to their reasons for investing in solar and their future intentions in relation to home energy storage (batteries) as part of the Energy Consumer Sentiment Survey. A snapshot of solar customers was included in our Consumer sentiment and behaviour report which we published in 2019. This followed our research with 2,450 households, to understand their motivations for investing in solar and batteries, which was published in 2017 and is available here.

Our 2017 survey report identified the following with respect to consumers' motivations for their investment.

- Financial considerations were the primary driver with 92% saying they installed solar to reduce energy bills. Many said solar feed-in tariffs (80%) or government grants (74%) were also a factor in their decision to invest.

- The second biggest motivator was clearly a desire to become less dependent on traditional energy companies and 'the grid' (82%), while protecting the environment ranked fifth (72%).

- The results for batteries were similar, with reducing household energy bills (73%) and reducing energy dependence (76%) on the grid the key reasons for installing or considering battery storage.

We are currently undertaking a new survey (of 2,000 households) to again explore consumer motivations for investing in solar and batteries, in the context of the proposed reforms. We are aiming to make this research publicly available in June/July.

Thank you for the opportunity to make this submission. If you would like to discuss this submission further, please do not hesitate to contact me via email lynne.gallagher@energyconsumersaustralia.com.au

Yours sincerely,

Lynne Gallagher
Chief Executive Officer