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7 May 2021

Anna Collyer
Chairperson
Australian Energy Market Commission
GPO Box 2603
SYDNEY NSW 2001

Dear Madam,

DRAFT RULE DETERMINATION: National Electricity Amendment (Access, pricing and incentive arrangements for distributed energy resources) Rule 2021 and National Energy Retail Amendment (Access, pricing and incentive arrangements for distributed energy resources) Rule 2021.

Introduction:

In response to submissions from SA Power Networks, St Vincent de Paul Society Victoria, Total Environment Centre, and Australian Council of Social Service, the Australian Energy market Commission (AEMC) has issued a draft rule determination on access, pricing and incentive arrangements for distributed energy resources.

Acknowledging that the present 20% of customers with rooftop solar in the National Electricity Market (NEM) will double or even triple by 2040, the determination recognises that distribution services are two-way, and that energy export is also a service to consumers. This recognition will allow for two-way pricing and charging.

Enova Community Energy (Enova) recognises that the stated aim of the AEMC in making the draft determination is to **promote incentives** to invest in, operate and to use DER exports, and that the ruling is carefully crafted to deal with a complex subject and to address both the issues and the concerns that have been raised. However, overall, we concur with those who point out that at a time when we should all be working on energy solutions that enable us to move as rapidly as possible towards 100% renewable energy and minimising carbon emissions to address climate change, this determination may well prove counterproductive. In short, we agree with the concerns "that implementation of export charges would undermine Australia's commitment to reduce emissions, risk the value of household solar PV investments made in good faith, and create a competitive disadvantage for micro embedded generators (e.g. household solar PV)." p.181 report. In addition we are concerned at the potential unequal impact in terms of costs of the proposed changes on small retailers, and we are of the view that significant trials need to be carried out to provide evidence that the proposed approach is genuinely the most cost effective solution.

The Challenges as outlined:

1. **Distribution networks not fit for purpose**: As stated, **one** of the issues is that Distribution Networks (DNSPs) were not built for two-way services and are approaching the limits of their capacity without more investment.

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It is recognised that the speed with which this is occurring varies by location, both because solar pv take up varies by location and because the current inherent capacity of the networks to absorb export varies by location. (e.g. TasNetworks point out that "It is likely to be some time before DER levels approach the limit of the Tasmanian distribution network's inherent capacity to host DER." p.195 report)

2. **Inequity of costs of upgrades**: Secondly, it is assumed that the need for additional investment to make the distribution networks fit for their new purpose will necessarily be passed back to consumers. It is noted that the existing inherent capacity of the networks has already been paid for by consumers through the daily supply charge. The proponents of the rule change point out that it is inequitable for those without distributed resources to share the costs of grid upgrades to enable energy export, since it is the exporters who benefit through feed-in-tariffs (FITs).

   However, a number of submissions point out that those without solar pv at present have been benefitting to some extent because the progressive increase in DER has been contributing to the reduction in the wholesale price of energy. It is also the case that feed in tariffs have been declining because the volume of energy exported in the middle of the day is so great. As Solar Citizens (cited p.186 report) point out: "… the imposition of …(export) fees, particularly in the context of rapidly lowering feed in tariffs, will discourage investment in solar, as it will inevitably extend the pay back periods." If investment in rooftop solar is providing a net benefit to all consumers, then it follows that reducing the amount of rooftop solar exports will negatively impact all consumers.

The Case for Rule Change Allowing Charging:

The AEMC states that presently there are no incentives or penalties for Distribution Networks to upgrade their services to enable DER to properly contribute to the grid in all locations and to enable the full benefits of efficient integration. That doing nothing will result in continuing constraints and bottlenecks.

The package of reforms and Framework proposed are designed to allow more consumers to connect their distributed energy resources to the grid, while protecting those who cannot, or choose not to, invest in distributed energy resources, from higher network costs, and ensuring system security.

Enabling cost-reflective export charges for distributed energy resources is in the AEMC's view the most cost-efficient way to manage the long-term investment required and will result in the lowest possible system cost overall. It will facilitate allocation of investment costs between users, and over time, in proportion to the benefits that customers are expected to receive from these services.

The Framework put forward by the AEMC does indeed allow for many safeguards and apparently a great deal of flexibility. It also makes use of the existing framework as far as possible to minimise complexity. While the Australian Energy regulator (AER) will still provide price guidelines, approve the methodology, approve the transition strategies proposed, and determine performance targets under the Service Target Performance Incentive Scheme (STPIS) (including the total amount that can be recovered), the Distributors are given a great deal of flexibility. They will be able to charge or not; have different prices for different classifications of customers; and provide payments for exports at desired times as well as charging. In theory consumer protections are being strengthened, with requirements for extensive customer consultation, and annual reporting.

The AEMC has also allowed for a reasonably lengthy time frame for implementation. Submissions will be taken until 13 May; a final determination issued by 24 June. Following that the AER will need

to develop methodologies. Different state government jurisdictions can apparently decide to take different approaches, and may well do so.

The Issues/Difficulties as Enova sees them:

1. **Immediate counterproductive outcome:**

   Whatever the intent behind the rule change to create a system to enable more DER, the immediate likely unintended consequence of the publicity already given to export charging, is that people will be deterred from installing solar unless they can afford personal batteries.

   The messages re timing, flexibility, consultation, minimal impacts, ability to earn, and variable outcomes according to distributor, class of customer, and jurisdiction etc are already too complex to be explained clearly to the general public.

   For some time, Enova has been trying to educate the community that the mid-day duck curve means that returns from exported energy are, of necessity coming down. Until regulations are amended to enable cost-effective sharing of energy then installing system capacity excess to immediate use is not desirable without a battery. **The concept (alone) of export charges** added to shrinking feed in tariffs will necessarily slow the uptake of solar pv. Such a slowing is definitely not in Australia's best interests in shifting to a zero-carbon economy. It is also not in the best interests of communities who will have to continue to rely on large generators for their energy resulting in less self-sufficient and less resilient communities.

   At best, the slowing in residential pv installations will be temporary, and be resolved if satisfactory customer consultations take place or satisfactory jurisdictional decisions are made, with simple outcomes that can be explained clearly. However, in view of the inevitable differences in pricing resulting from the inbuilt flexibility of the determination, this appears unlikely.

   Another possible unintended consequence is that inequities between consumers will be increased, with those who can afford personal investment in batteries being the major beneficiaries. The determination already notes that the move may likely drive an increase in uptake of batteries, but this will be at the individual household level since it appears shared batteries will be disadvantaged under export changing (see point 2).

2. **Possibly not Lowest Cost/Most Cost-effective solution:**

   As Tesla and Origin submissions both point out, any charging should come after an evidence-based examination of the issues. Voltage issues can be caused by a range of factors. Where curtailment is currently in place should the *starting point* be to a) examine the causes more closely b) see what other solutions, including demand management may be suitable. The progressive uptake of EVs should also be factored in. And how widespread is the curtailment issue? Where is the data to demonstrate the scope of the issue?

   Curtailment must over time become a more widespread occurrence IF other developments currently underway did not take place, such as implementation of dynamic operating envelopes, smarter inverters, and more demand management solutions including use of home water heaters and EVs. But without data we do not know the extent of work required or how costly the solutions to address the increasing take-up of solar might be.

Retailers will be required to negotiate with multiple distributors who may each take a different position. Retailers will then need to make modifications to billing systems. The overall costs will not be insignificant and will necessarily be passed through to consumers. Customer comparison sites will become even more complex.

States are highly likely to take different positions for a range of reasons, as they already do. For example, Tasmania, on Tasnet's recommendation may well decide nothing is required for the time being. Queensland already has significant cross subsidies of its country regions by its capital city region, whereas in NSW the additional costs of widespread country networks are carried by the country consumers, (with cross subsidies coming from regional centres) while city-based consumers have lower distribution costs. With "cost-reflective solutions" starting from such inequitable and uneven systems, a standard or lowest cost outcome for all appears unlikely, with country regions potentially being hardest hit. Further, Enova would argue that in terms of overall **system cost minimisation**, shared community batteries are potentially more beneficial than multiple individual residential batteries. Yet it is already known that in the case of community level solar farms or gardens, the costs of distribution undermine viability. Export charges if imposed are likely to similarly undermine the value of shared street, community or microgrid batteries. The whole concept of regional self-sustainability and increased resilience at the community level is threatened unless agreement can be obtained from distributors.

3. **Competitive Balance with Large Scale Generation:**

It is stated that **"**competitive balance distortions are an important consideration, especially given the broader policy goal is to support the transition to a fully integrated electricity system – with DER competing in multiple markets." p.242. However, while the various connection costs of large-scale generators are outlined, the report fails to acknowledge (although CEPA has pointed this out in its submission), that these costs for generators are ultimately passed through to consumers in any case, just as are transmission costs. The planned Snowy-Hydro 2 will be an outstanding example of this. On the other hand, the small-scale "prosumer" is a price taker at all times. It difficult to see how competitive balance is being maintained. For those who are trying to argue the case for removing inequities, the fact is that where community shared batteries and community projects such as solar on social housing or social access solar gardens are concerned, the prosumer will only gain such benefits as the distributor wishes to pass through, while continuing to pay TUOS, DUOS *and* charges passed through from large scale generation for energy, together with DUOS for system use at unsuitable times.

4. **DER is seen as a Problem not part of the Preferred Solution:**

Enova has been arguing since our inception that the time has come for a paradigm shift. Such a paradigm shift would involve recognising that DER can and should be a large part of the answer to a lowest cost solution.

As pointed out by multiple submissions, DER is already providing benefits to consumers by driving down prices and DER has the capacity to provide material benefits to networks if properly used. Yet we are still seeing the growth of DER as creating problems for the network which DER providers should address, rather than the network not being fit for purpose. As one submission puts it: "The signal sent by export charges is that solar cells are

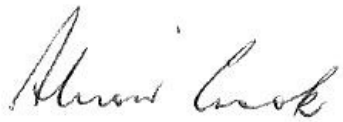
an unwelcome inconvenience to a network built for the benefit and use of large-scale producers. It will be experienced as paying for a network twice – first as a consumer and then as a producer." P.189

A paradigm shift in which engineering planning commences from DER in a region or town, and involves the implementation of microgrids, storage and VPPs aiming for self-reliance and drawing on energy coming from transmission as a last resort, might well see a different outcome. We attach a US study (**Why Local Solar For All Costs Less: A New Roadmap for the Lowest Cost Grid, 2020)** which demonstrates that a ground up DER approach is actually the most cost-effective grid solution.

A genuine DER system, with regional communities sharing generation and storage, which is developed with the aim of leaving no one behind, and ensuring that all in the community can share in the benefits of renewables, will not disadvantage lower socio-economic groups. Whereas a system in which those who can afford their own storage will certainly gain, while others are deterred from installation is likely to be far more inequitable.

5. **Other Funding Options Not Considered:**

Many people are already aware of the considerable subsidies which have been in place for many years for fossil fuel generators. Most people are currently aware of the federal government focus on a "gas led" recovery, and what that will mean in terms of using taxpayer dollars through ARENA and CEFC. If the aim is to shift rapidly to a zero-carbon economy built on renewable energy, then surely it is within grasp to apply government subsidies as required, after evidence is gathered, to develop a system that will minimise curtailment.



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