

Submission: Access, Pricing and Incentive Arrangements for Distributed Energy Resources (ERC0311)

AEMC Draft Determination

The Australian Energy Market Commission (AEMC) is to be commended for seeking to help make distributed energy resources (DER) an integrated part of the national electricity system for the benefit of everyone.

When the National Electricity Market (NEM) was designed, there was almost no rooftop solar or other small generation, demand response or storage in the system. The National Electricity Law (NEL) and Rules (NER) for distribution networks were focused on efficient one-way flows of electricity from large generators to homes and businesses. No responsibility for the efficient or effective integration of DER was incorporated into the responsibilities of Distribution Network Service Providers (DNSPs). Now that over 2.7 million homes in the NEM have solar systems installed on their rooftops, such responsibility is well overdue for inclusion in the NER.

IEEFA strongly supports the first part of the draft determination, to:

1. Introduce obligations on network businesses to provide export services.

Treating export services as a distribution service is a necessary and important step in the energy transition.

Consumers need to be confident in the export services provided by DNSPs so the second change, to:

2. Require the development of export service performance standards

is also strongly supported.

DNSPs need to be held to account for their export service performance, as they are for import services, and should be rewarded and penalised for meeting or failing to comply with these standards, as they are for other network performance standards.

To this end, IEEFA supports:

- the AER reviewing the feasibility of extending the Service Target Performance Incentive Scheme (STPIS) to exports within 18 months
- DNSPs being required to report on export performance metrics annually, and

- the AER's work on a method to calculate the value of customer exports (VaDER).

While IEEFA appreciates that the AEMC is seeking to provide DNSPs with options as to how they recover costs for new services, the case has not been made for the third proposed change, that is to:

3. Enable networks businesses to develop two-way pricing on both consumption and export services.

IEEFA opposes the deletion of the prohibition on export charging, clause 6.1.4 of the NER.

As is often the case with new technology, rooftop solar has been characterised as a risk to the grid, but SA Power Networks is managing 40% rooftop penetration with less than 1% of its regulated network revenue.

The Australian Energy Regulator (AER) granted SA Power Networks \$3,914m in revenue from its customers for the period 1 July 2020 to 30 June 2025. Of this almost \$4b total, SA Power Networks will spend an estimated \$32m of capex to build capabilities to roll out dynamic operating envelopes (DOEs) as a standard connection service.

Dr Bryn Williams from SA Power Networks told IEEFA:

'The cost for any given (distribution business) is likely to be different from any other, depending on their specific circumstances and their starting point in terms of existing systems and capabilities. In SA Power Network's case this involves significant investment in:

New IT systems to receive and process high volumes of telemetry data from smart meters and other data sources across our LV network, whereas the Victorian distribution businesses have built this kind of data platform for their AMI (Advanced Metering Infrastructure) rollouts.

Building our LV hosting capacity model, which includes the cost of field audits on a sample basis to improve the quality of data we have on the physical assets we have in the field for our LV network, as our records and data quality in this area are poor.

The cost of establishing a DER database and associated business processes.'

The available figures for other Australian network businesses are similar - that is, less than 5% of revenue being spent to create the smarts to manage rooftop solar, at least for the next five years.

In IEEFA's view it is unfortunate that stakeholders have devoted so much time on a quantifiably insignificant issue and one that could be seen as yesterday's challenge given the flow of consumer investment coming into small-scale batteries and

electric vehicles. With greater on-site or mobile storage, exports from rooftop solar will significantly reduce.

It is IEEFA's view that the focus should be on urgent issues of DER integration rather than discussions about who should pay for the insignificant (<5% distribution network revenue) cost of incorporating one type of DER. The politics of temporary equity concern about solar panel installation will be a footnote in a broader energy transition narrative about the electrification of everything.

Consumers who cannot install solar panels will *not* be left behind because renewable energy is bringing down the costs of electricity for everyone; electric vehicles will substantially change the economics of the transition (including, potentially, network costs) and broader regulatory financial issues (such as who pays the cost for stranded gas networks and for new transmission) will have a far greater financial impact on low income consumers.

In addition, if energy poverty is viewed as one component of poverty, then governments are best to address this through housing and appliance policy and programs—upgrading social housing, requiring minimum energy efficiency standards for rental properties, subsidising upgrades to efficient electric appliances, etc. The Victorian government, and to a lesser extent, the NSW government understands this perspective and has been prioritising effective poverty alleviation policies and programs. In NSW solar is being installed on thousands of government-owned Aboriginal housing properties. Stakeholders that support decarbonisation and poverty alleviation could assist greatly in campaigning for other states and the Federal government to do more along these lines.

In addition, urgent DER reforms that would be a far more valuable use of the AEMC and stakeholders' time include:

- Fast tracking of the rule change lodged by Dr Kerry Schott on the governance of DER technical standards
- Greater resourcing and fast-tracking of DEIP work on Dynamic Operating Envelopes
- Investigations and trials into managed EV and vehicle-to-grid (V2G) charging
- Planning for a zero-inertia system. This is now urgent, see IEEFA's recent report on this topic (IEEFA. Australia's Opportunity To Plan Ahead for a Secure Zero-Emissions Electricity Grid. March 2021).

The final part of the draft determination, to:

4. Provide flexibility and enable options to suit individual networks (or their state's and territory's) circumstances

is *not* necessary, given export charging will not be implemented.

IEEFA appreciates the opportunity to provide this submission and acknowledges the enormous work that AEMC staff have put into this draft determination and the DEIP process prior to the lodgement of the rule change requests.

About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. www.ieefa.org

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