



27 May 2021

Australian Energy Market Commission

Lodged online: www.aemc.gov.au

Dear Sir/Madam,

Access, pricing and incentive arrangements for Distributed Energy Resources - Draft Determination

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on the Access, pricing and incentive arrangements for Distributed Energy Resources (DER) - Draft Determination.

Origin is a large Australian integrated energy company with activities in energy retailing, power generation and natural gas production. Origin also has recent experience in exploring new product offerings and has focused on areas such as solar & storage and connected homes. We currently have over 85 MW of demand response capability and have launched a new residential demand response app called Spike. We view the integration of DER as a key long-term reform.

Our submission to this draft determination covers the following key points:

- Guidelines for distribution level export pricing
- Clarification of network's two-way role

Guidelines for distribution level export pricing

One of the key issues covered in the draft determination involves how to more efficiently and equitably price the export of energy from increasing levels of DER. We understand that this issue is potentially contentious for a number of stakeholders.

In our submission to the consultation paper in 2020 we stated that the economic arguments made in favour of a price signal placed on exports have merit but asked for further analysis of both how the price signals may impact DER customers and how they could best be implemented at the state or network level. We are pleased that the AEMC has given strong focus to the impacts on customers and acknowledge that this has been a key theme in the previous submission process and at the recent virtual public forum.

We understand that the draft determination is just one step in this reform process. However, by leaving much of the key details to be determined by the AER and networks at a later stage, the rule change potentially opens up a degree of uncertainty for DER customers. These customers invest in new devices such as solar panels on the basis of a relatively stable policy environment. We also observe that there will be several years between the AEMC making a final rule, and the proposed export charging commencing. There is the potential that uncertainty during this period may impede customer take-up of DER technology, including those that may be useful for network support. Once charges commence, customers face the risk that a future TSS will change the export charge structure, thus making a level of uncertainty permanent.

We suggest that the AEMC should seek to provide further confidence to DER customers by engraining additional safeguards in the rule change. This could include:

- **Cost allocation principles** for the AER guidelines. These principles could provide clarity on what types of DER are likely to be charged (such as only new from a certain date, or phased in over time), and what costs are expected to be recovered from these DER.
- Provide individual consumers with some choice on the level of export charging, potentially tied to their export limits. Some customers may choose to face a lower charge and have an export limit rather than a higher charge.
- Deeply involve consumers into the process for developing export charges. Most consumers are not experts on the different roles of networks and retailers, nor do they follow regulatory policy changes closely. Without buy into the process, these consumers may see changes to how they interact with the market as a punitive and arbitrary charges. This consultation should include a plain language description of reasons for charging and potential impacts on customers.

Support clarification of network's two-way role

Origin Energy agrees that the rules should be amended to reflect network's role including export services from DER. There is an expectation from consumers that the network help facilitate their interaction with the wider market. We also consider that networks have an important role in helping innovative products from market participants be introduced.

However, the AEMC should be mindful that some level of network constraints for exports should be expected. Building out for unlimited export capacity will be expensive and not lead to efficient outcomes. That is why we support the development of a mechanism to estimate the Customer Export Curtailment Value (CECV) which will be used to estimate an appropriate level of network spend on export services. The AEMC should set out additional guidance the proposed method of calculation of CECV. The setting of this value could have substantial impact on total network spend and it should be clear whether this represents the value that DER providers expect, or those of the wider consumer base, which may be different.

Additionally, we question how the AER will determine a CECV which can be used in regulatory decisions for investment timeframes, where one of the main components will likely be a forecast of the wholesale price. Mechanisms should be in place to protect customers from bearing the risks of overbuilding of network export capacity based on optimistic forecasts of wholesale prices leading to inflated CECVs. We suggest that any incentive schemes that use CECV as an input also consider observed market benefits in determining payment to regulated entities,

Finally, there is often no clear distinction between works to support export capacity and those to facilitate electricity supply to customers. Networks should not use export support to fund work that would be done in support of their traditional customer facing role. For example, while some mechanisms to reduce voltage may lead to an increased ability to export, networks are already expected to maintain voltage levels in an appropriate range for their customers. Export charges should not be expected to cover the total costs of lowering of voltage levels.

If you wish to discuss any aspect of this submission further, please contact Matthew Kaspura at matthew.kaspura@originenergy.com.au.

Yours sincerely,

A handwritten signature in blue ink that reads "K. Robertson".

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About Origin

Origin is a large Australian integrated energy company with activities in energy retailing, power generation and natural gas production. Origin also has recent experience in exploring new product offerings and has focused on areas such as solar & storage and connected homes. We currently have over 85 MW of demand response capability and have launched a new residential demand response app called Spike. We view the integration of DER as a key long-term reform.

Origin has developed a proprietary VPP platform to enable the coordination of behind the meter DER. The platform enrolls and connects to a range of DER, including solar, battery storage, controlled load (e.g. electric hot water, electric vehicles and pool pumps) and large appliances (e.g. air conditioning). The platform uses AI to learn and predict the behaviour of energy consumers and optimises each of the assets based on this learned behaviour. Over 85 MW of demand response, across about 11,000 customers, is connected through our platform.

The platform has been designed to integrate with a range of hardware solution providers, allowing customers to have a greater degree of choice when selecting a connected home energy solution. Origin uses the platform to create additional value for our connected customers by:

- Maximising solar self-consumption – generate and store solar energy for later use
- Energy efficiency – optimise asset operation to reduce overall volume of electricity consumed
- Load shifting – shift energy usage to different times of the day, shifting between peak and off-peak
- Peak shaving – reducing the peak energy usage amount and reduce network demand charges (if applicable)

Origin recently launched a mass-market demand response program, Spike, which is available to all Origin residential electricity customers with a digital meter. The program rewards customers for meeting regular energy-saving targets (run as discrete “Spike hour” events). Customers can participate by manually switching off devices or deferring usage (behavioural demand response), as well as device-orchestrated response with controllable devices including EV chargers, smart plugs and air-conditioning controllers. Rewards include cash, gift cards and prizes. Origin has partnered on the platform development with OhmConnect, a leading provider of residential demand response in the US. Early uptake and activity levels have been promising.