



25 May 2023

Australian Energy Market Commission

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Dear Sir/Madam,

Review into Consumer Energy Resources Technical Standards draft report

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on the Review into Consumer Energy Resources Technical Standards draft report.

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 have developed a proprietary Virtual Power Plant (VPP) platform to connect and use artificial intelligence to orchestrate distributed assets. Assets connected to the VPP have grown to over 450 MW, including an increasing variety of distributed energy and Internet of Things (IoT) devices. These devices include hot water systems, solar, batteries, air conditioners, EVs and various industrial assets, which are aggregated, controlled, and dispatched in response to market and portfolio positions, creating value for both Origin and customers through a lower cost of energy. Origin views the integration of these devices as a key long-term reform.

In our role as a retailer of DER products and services we currently face a range of related technical standards at the state and distribution network level. Currently there is no coordinated or central approach to developing new CER technical requirements and industry has little engagement in the development of CER technical requirements. The current status of CER technical standards regulation is not satisfactory and is neither serving the industry or consumers.

We support the intent of the proposed rule change which we understand is to both better coordinate the governance of DER technical standards across the NEM as well as provide a more efficient approach to standards development, implementation and compliance.

The twelve draft recommendations for immediate action promote small but useful first steps in improving the implementation of CER technical standards. However, these are largely voluntary measures being undertaken at the initiative of interested stakeholders such as AEMO, networks, the Clean Energy Regulator or Clean Energy Council. As the AEMC admits, it has few powers to impose obligations on relevant parties such as manufacturers and installers. The draft recommendations are also limited in scope and generally apply to one standard – AS 4777.2:2020, which covers voltage-ride through settings of inverters. We suggest that the scope should be broader than this.

Draft recommendation 13 and the accompanying report from Baker McKenzie provides a starting point for improving the governance of CER technical standards and a more streamlined approach at a national level. We would encourage the AEMC not to delay this process any further. We made a submission in mid-2021 on improving the governance of CER technical standards and almost two years later little has

changed. Instead of relying on a 'reasonable implementation period' the AEMC should be providing a suggested model for improving CER technical standards governance in this review. This would aid a more timely consideration by jurisdictions and market bodies. Further, as pointed out in this submission, a national body would aid the development of mandatory obligations on manufacturers and installers, as well as providing a robust compliance regime.

If governance arrangements for DER technical standards are not reformed, the industry (and customers in particular) will continue to face the risk of unnecessary costs from poorly designed and implemented standards.

Further discussion of the specific draft recommendations is contained in the attached table.

Origin is a member of the Clean Energy Council (CEC) and generally supports its submission to this draft report.

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 black ink, appearing to read 'M Kaspura', written in a cursive style.

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Governance of DER technical standards - comments on draft recommendation

No	Draft recommendation	Origin comment
Stage 1: simplify devices at manufacture and supply		
1	Remove historical device settings	<ul style="list-style-type: none"> • Origin supports this in principle but notes that the obligation is voluntary only. • We suggest that mandatory measures should be explored and this would be assisted by the formation of a national body to govern CER technical standards. • We also question how progress on compliance will be measured.
2	Make region 'A' the default setting	<ul style="list-style-type: none"> • We support this proposal. • Again, it would be of benefit if the requirement could be made mandatory.
3	Update devices remotely to support compliance	<ul style="list-style-type: none"> • We support this proposal in principle but it needs to be carefully implemented as it involves remote access of a customer's assets. This will require the consent of the customer. • When customers change retailers or move premises it is likely that explicit informed consent will be required for the new retailer to have access to the customer assets. • We agree that this is a sensible first step and note that some participants are already doing this. Applying remote updates is generally a cost-effective solution. • However, we again question how effective this measure will be if it is only voluntary.
Stage 2: promote compliant installation		
4	Make CER technical standards mandatory for New Energy Tech Consumer Code approved sellers	<ul style="list-style-type: none"> • We partially support this proposal. • We note that the New Energy Tech Consumer Code is a voluntary measure – it appears somewhat inconsistent to make part of a voluntary code 'mandatory'. The code also applies to sellers but the technical standards in question are implemented by installers. Both sellers and installers should bear responsibility for compliant devices. • A better approach would be to create a national governing body for CER technical standards. This body could then impose legal obligations on the installers that are carrying out the key activity.

5	Mandate CER technical standards training for SRES accreditation	<ul style="list-style-type: none"> We support this draft recommendation in principle but note that the SRES only covers the installation of solar panels and inverters. We suggest a broader training program which also includes other CER such as batteries, EVs and other devices, as well as the communications between them, should be considered by the AEMC.
6	Funded training on CER technical standards for installers	<ul style="list-style-type: none"> We support this draft recommendation in principle. We note that the AEMC cannot mandate this funding and that it will be up to the relevant jurisdictions to provide it.
7	Guidance on CER technical standards for installers	<ul style="list-style-type: none"> We support this draft recommendation in principle. However, a national and streamlined approach to guidance (and training) is preferred.
8	Introduce commissioning sheets for CER devices	<ul style="list-style-type: none"> We support this draft recommendation in principle but question how it will be practically implemented. Such a recommendation will require coordination across manufacturers, installers and networks.
Stage 3: support ongoing compliance		
9	Accelerated smart meter deployment with improved data access	<ul style="list-style-type: none"> Agree in principle. However, this is the subject of a separate review process.
10	Access to OEM compliance data	<ul style="list-style-type: none"> Agree in principle but note this is voluntary. We suggest that mandatory measures should be explored and this would be assisted by the formation of a national body to govern CER technical standards.
11	Defined process for contacting consumers	<ul style="list-style-type: none"> We support this draft recommendation in principle but question how effective it will be if it is only voluntary. Remote updates (as noted in draft recommendation 3) are the more cost-effective option and are supported, so long as informed consent is obtained from the customer. If remote updates are not possible then a process for contacting customers to rectify the problem is supported but would be more effective if it was mandated.
12	Subsidised re-configuration of non-compliant devices	<ul style="list-style-type: none"> Do not support. Such an approach provides a mixed incentive for compliance. The obligation should be on manufacturers and installers to promote compliance in the first place. As noted above, a national body to govern CER technical standards would assist in provided mandatory obligations.

Longer-term reform		
13	Jurisdictions work with energy market bodies to consider the options for and viability of reforming the national regulation of current and future CER technical standards	<ul style="list-style-type: none"> • We support reform of the governance of CER technical standards with a preference for a national and streamlined approach. • We believe this reform should be implemented immediately. • Such an approach can assist with the other twelve draft recommendations by improving the accountability of the key stakeholders such as manufacturers and installers and providing for a legislative regime that has robust powers of compliance and enforcement. • We agree with the steps described on pages 39-42 of the draft report but suggest that the AEMC should be undertaking some of this work as part of this review, rather than leaving it to jurisdictions.



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 450 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.

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.