



7 October 2021

Australian Energy Market Commission

Lodged online: [www.aemc.gov.au](http://www.aemc.gov.au)

Dear Sir/Madam,

### **Governance of Distributed Energy Resources (DER) Technical Standards**

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on the Governance of DER Technical Standards Consultation Paper.

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.

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 and implementation. As part of improving the governance structure for DER technical standards we support an increased role for the AEMC. This should improve the timely assessment of the implications for energy markets and the costs and benefits for customers.

However, how new governance arrangements are implemented will be key to whether the desired benefits are achieved. 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. If poorly implemented, the rule change may simply add an extra layer to this process. To be effective, the rule change will need to give responsibility to the AEMC to efficiently coordinate the development and implementation of technical standards across networks and jurisdictions.

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

- Governance structure - we suggest a hybrid model where the new committee would recommend technical standards, possibly on advice from technical experts, and the AEMC would make a final decision on implementing those standards. This would draw on the strengths of both bodies – the new committee would focus on technical aspects whilst the AEMC could focus on market impacts including the economic costs and benefits, particularly the impacts on energy consumers.
- Legislative implementation – the new arrangements should be contained in the National Electricity Rules to increase transparency and accountability of the new arrangements. The NER is an appropriate structure to implement consistent NEM wide standards.

- Timeliness of the process – a well-resourced committee, with paid members should incentivise more timely decision making. However, it is also important to promote the quality of decision making as new DER technical standards may impose long-term costs and benefits on the market.
- Consideration of customer impacts – a central role for the AEMC will improve the consideration of costs and benefits on customers and promote better understanding of broader market issues.
- Scope – we encourage the AEMC to further examine the scope of what is defined as “DER technical standards”. We suggest a definition that is referenced to DER products and services, rather than just technologies, is a good starting point.

Further discussion of the specific consultation paper questions is contained in the attached table.

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

Yours sincerely,



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## Governance of DER technical standards - comments on selected consultation paper questions

<i>Question</i>	<i>Sub-question</i>	<i>Origin comment</i>
1 – Assessment Framework	1.1	<ul style="list-style-type: none"> <li>We generally agree with the proposed assessment framework which considers the most relevant aspects to include “efficient investment in, and operation of, electricity services with respect to price, quality and security of supply of electricity” (p 12).</li> <li>We note that Table 4.1 (p 13) does not specifically mention “quality” and suggest that this should be included, as it is in the above statement on p 12.</li> <li>We highlight the importance of considering the costs and benefits to customers, and particularly how customer incentives and behaviours may be impacted by the costs of DER technical standards.</li> </ul>
2 – Identifying Governance Problems	2.1	<ul style="list-style-type: none"> <li>We generally agree with the problems identified in the rule change request which includes: <ul style="list-style-type: none"> <li>- Inability to implement consistent technical standards across the NEM</li> <li>- Need for a fast, flexible and transparent standards setting process</li> </ul> </li> </ul>
	2.2	<ul style="list-style-type: none"> <li>We agree that the current Standards Australia process relies on a technical committee dominated by network companies, service providers and market and regulatory bodies.</li> </ul>
	2.3	<ul style="list-style-type: none"> <li>The AEMCs recent rule change on DER technical standards was welcome but focused on a much narrower issue and did not specifically address overarching governance arrangements.</li> </ul>
	2.4	<ul style="list-style-type: none"> <li>Longer term issues such as interoperability and cyber security can be addressed at a later stage. It is important to address governance arrangements for DER technical standards first so that the quality of later decisions is improved.</li> <li>Current work through the ARENA DEIP process on interoperability and cyber security could be handed over to the new AEMC DER Standards Governance Committee at an appropriate stage.</li> </ul>
3 – Assessing the Market Impact of Identified Problems	3.1	<ul style="list-style-type: none"> <li>Yes, an example is provided by the AEMO/South Australian Government requirements in 2020 to bring forward requirements for short duration under voltage disturbance ride through (VDRT). The CEC estimates this cost the industry tens of millions of dollars to implement. Unfortunately, recent analysis by AEMO indicates this</li> </ul>

		process has resulted in little or no benefit. This is an example where a cost benefit analysis in the decision to implement the policy could have avoided this cost for stakeholders.
	3.2	<ul style="list-style-type: none"> <li>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.</li> </ul>
4 – DER technical standards in the Rules	4.1	<ul style="list-style-type: none"> <li>DER technical standards should be included in the NER, rather than a subordinated instrument. This will increase the transparency and accessibility for all stakeholders. It is also an appropriate means to implement consistent NEM wide standards.</li> </ul>
	4.2	<ul style="list-style-type: none"> <li>New regulatory arrangements need not duplicate the Standards Australia process. We suggest a hybrid arrangement (see Q 5.1 below)</li> </ul>
5 – Who develops and maintains DER technical standards?	5.1	<ul style="list-style-type: none"> <li>We support the proposed new DER Standards Governance Committee.</li> <li>We suggest a hybrid model where the new committee would recommend technical standards and the AEMC would make a final decision on implementing those standards.</li> <li>This would draw on the strengths of both bodies – the new committee would focus on technical aspects whilst the AEMC could focus on market impacts including the economic costs and benefits, particularly the impacts on energy consumers.</li> <li>The new committee could draw on existing work of Standards Australia. For example, current Standards Australia committees could provide technical advice to the new committee.</li> </ul>
	5.2	<ul style="list-style-type: none"> <li>Members of the committee should be drawn from a broad range of stakeholders that include customers, retailers, aggregators, networks and manufacturers.</li> </ul>
	5.4	<ul style="list-style-type: none"> <li>Membership of the new committee should be paid. This will increase the opportunity to recruit high quality members and will also allow for more timely decision making.</li> </ul>
	5.5	<ul style="list-style-type: none"> <li>Yes, the new committee should report to the AEMC.</li> </ul>
	5.6	<ul style="list-style-type: none"> <li>We suggest that new the committee would have NEM wide jurisdiction for DER technical standards. In this way the new governance arrangements would seek to streamline the existing arrangements.</li> </ul>
	5.7	<ul style="list-style-type: none"> <li>A well-resourced committee may incentive more timely decisions making.</li> <li>The proposed new regulatory arrangements will also seek to improve the quality of decision making.</li> <li>Both speed and quality of decision making is important.</li> </ul>
	5.8	<ul style="list-style-type: none"> <li>As above, a well-resourced committee may increase the possibility of more timely decision making.</li> </ul>

6 – How prescriptive should new governance arrangements be?	6.1	<ul style="list-style-type: none"> <li>The NER should clearly lay out the new governance arrangements for DER technical standards including the role and responsibility of the new committee and its membership.</li> </ul>
	6.2	<ul style="list-style-type: none"> <li>Yes, a regular review of DER technical standards by the AEMC would be beneficial.</li> </ul>
	6.4	<ul style="list-style-type: none"> <li>We do not consider an amended Reliability Panel to be a suitable model to cover DER technical standards.</li> </ul>



## **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.