

Have your say on technical standards for distributed energy resources like rooftop solar

Rule request on technical standards for distributed energy resources Consultation paper 25 June 2020

The AEMC is investigating how small energy systems like rooftop solar can best contribute to Australia's renewable energy future without risking system security.

Releasing its consultation paper today, the Commission has called for your views on the implications of setting minimum technical standards for distributed energy resources (DER) such as rooftop solar and batteries.

The rule request put forward by the market operator, AEMO, proposes that it set minimum standards that must apply to all new connected rooftop solar systems, household and business battery systems, and electric vehicles, delivering power to the grid.

Distributed energy resources are consumer-owned devices that, as individual units, can generate or store electricity or have the 'smarts' to actively manage energy demand. These devices will play an increasingly important role in meeting Australia's energy needs into the future.

AEMC Chief Executive Benn Barr said there are currently no national standards enforced through the National Electricity Rules for this type of equipment.

"Uncertainty about the quality and performance of these small systems means the market operator is increasingly under pressure to restrict the energy generated by rooftop solar from entering the grid to avoid destabilisation," Mr Barr said.

"It is clear that system security issues need to be addressed to avoid this scenario as rooftop solar penetration is expected to reach 14.64 GW total - an amount that could meet upwards of 40 per cent of underlying demand by 2025.

"But the introduction of new technical standards into the National Electricity Rules framework may have significant cost implications for both the installation of new systems and system monitoring into the future."

"AEMO welcomes consultation on the inclusion of DER technical standards for the NEM," said AEMO Managing Director and CEO Audrey Zibelman. "With DER now the largest source of generation, technical standards will be critical to delivering better outcomes for consumers, enabling new markets to develop and maintaining power system security."

The AEMC consultation paper outlines key questions to be addressed, including:

- is the creation of a subordinate instrument for AEMO to set the initial minimum technical standard the most efficient way to address system security issues?
- in the absence of a long-term governance framework, should AEMO's power to set the initial minimum technical standard be limited to addressing immediate concerns of voltage ride through and provision of an emergency backstop?

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- should the life of the initial subordinate instrument be limited until such a time when a broader governance framework for the DER minimum technical standard comes into place?
- where and how should the standards be applied and who will monitor compliance?
- who should bear the costs of implementing and complying with these new standards?

Market bodies working together

This rule change request is part of a coordinated program of work to integrate distributed energy resources in a way that benefits for all energy users.

A broad collaboration of consumer and industry associations, energy market authorities, the Energy Security Board and government agencies are well underway with this work.

The AEMC is working with 12 other bodies to support Australia's evolution toward a distributed energy system that is secure, reliable, resilient, affordable and efficiently integrates and uses customers' energy resources, enabled through distributed energy markets.

Considerable work has been underway since the AEMC's 2019 Economic Regulatory Framework Review (ENERF) highlighted that networks are becoming a two-way platform for customers to use the grid.

About this reform process

This rule change request seeks to address some imminent system security issues caused by DER connections as identified by AEMO. The AEMC will consider this request requiring AEMO to create a subordinate instrument for a minimum technical standard for distributed energy resources and a definition of DER in the energy rules. We will consult with stakeholders before publishing a final determination in December.

While the AEMC's rule change process is underway, AEMO will consult on DER technical standards details. AEMO is expected to complete its consultation process by December 2020.

And a new governance framework to support nationally consistent minimum technical standards for DER will be developed by the Energy Security Board. The preferred long-term governance framework is expected to be recommended to COAG Energy Council in October 2020.

Together, these three projects combine to create a new, ongoing framework for the development of the minimum capabilities for distributed energy resources hardware, data and communications standards in a manner that achieves efficient outcomes and supports broader, national alignment on small energy system integration.

About the **AEMC**

The Australian Energy Market Commission is the rule maker, market developer and expert adviser to governments on energy. It protects consumers and achieves the right trade-off between cost, reliability and security.

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