



NEWS

Supporting a reliable and secure power system at least cost to consumers

The AEMC today released a package of recommendations and reforms to improve reliability, security and regulation of Australia's power system at the least cost.

Continuing to adapt the regulatory framework

AEMC Chairman John Pierce AO said the package outlined a number of concrete and practical changes that are necessary to accommodate significant changes in both electricity generation and consumption.

The three separate reports deliver on eight key recommendations of the 2017 Finkel report and include: a review of reliability frameworks; an assessment of the flexibility of distribution network regulation to support increasing distributed energy resources (DER); and more changes to frequency control arrangements to improve system security.

Mr Pierce said the changes are another step towards a more resilient power system that can efficiently serve energy users into the future without imposing unnecessary costs on consumers.

"We've proposed some new rules and mechanisms for adoption right now and added more flexibility into system frameworks so they can keep evolving in response to changes in technology and the economics of a reliable and secure power system," Mr Pierce said.

"We recognise the need to take evidence from trials currently underway. We will also continue to adapt the regulatory framework to the sector's experience and growing knowledge about innovations like demand management options or the ability of virtual power plants to improve the stability of electricity supply.

"This creative evolution of frameworks also applies to network regulation where we have found both network businesses and the Australian Energy Regulator have the tools available to manage high levels of distributed energy resources (DER) such as rooftop solar, but this needs to be monitored as the distribution networks get more clarity about what their customers are doing and what they want."

The key changes include:

- Clearing the way for energy users to participate directly in the wholesale electricity market to **facilitate greater demand management and deliver lower-cost reliability**, fast-tracked through early collaboration with stakeholders. This led to a commitment by The Total Environment Centre (TEC) and Public Interest Advocacy Centre (PIAC) in their submissions to the review to submit a rule change request. (*Reliability Frameworks Review*)
- Improving the **transparency and consistency of forecasting supply and demand** and the **regular reporting of frequency variations** in the market to inform both on-the-ground decisions for generators, large users, retailers and the market operator and the evolution of future policy (*Reliability Frameworks Review and Frequency Control Frameworks Review*).

The Commission will also begin consideration of other ways in which network regulation may need to change in the future to support a grid with significantly more multi-directional energy flows. This is part of an ongoing annual review process to ensure regulation is fit-for-purpose and delivers the best outcomes for consumers (*Electricity Network Economic Regulation Framework Review*).

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#	RECOMMENDATION	DELIVERY
Reliability-related Finkel recommendations		
3.4	Assessing the suitability of a day-ahead market.	The Commission has concluded that a US-style day-ahead market would not be suitable in the NEM to manage reliability outcomes. However, the Commission considers that there may be benefits from the introduction of a voluntary, contract-based short-term forward market, particularly for demand response.
	Assessing the need for a strategic reserve to enhance or replace the Reliability and Emergency Reserve Trader (RERT).	This is now being considered through the enhanced RERT rule change process.
6.7	Development of a mechanism to facilitate wholesale demand response	As part of its broader package that seeks to remove barriers to demand response the Commission has identified key characteristics of a wholesale demand response mechanism and is expecting a rule change proposal within six weeks
System security-related Finkel recommendations		
2.1	Require TNSPs to provide and maintain a sufficient level of inertia for each region or sub-region.	The AEMC's managing power system frequency rules, which commenced in July 2018, requires network businesses to maintain a minimum level of inertia that will help the system resist frequency changes.
	Require new generators to have fast frequency response capability, and review.	The AEMC's generating system model guidelines rule, which commenced in September 2017, requires generators to provide more information about how their equipment performs in different scenarios to allow AEMO and network businesses to better understand and manage the power system as it changes
	Update the connection standards to address capabilities such as system strength.	The AEMC is consulting on draft rules to introduce tighter technical performance standards for generators seeking to connect to the electricity network, and a clearer process for negotiating those standards. The AEMC made a draft rule on the Generator technical performance standards rule change request in May 2018. A final rule determination is due October 2018.
	Review and update the connection standards to address capabilities such as system strength.	The AEMC's Managing power system fault levels rule, which commenced in July 2018, requires network businesses to maintain system strength above agreed minimum levels at key locations in the power system, and new connecting generators to 'do no harm' to the level of system strength necessary to maintain the security of the power system.
2.3	Investigate and decide on whether synchronous generators should change their governor settings to provide a more continuous control of frequency, and consider the costs and benefits of tightening the frequency operating standard.	This <i>Frequency control frameworks review</i> has consulted on a range of options to address the deterioration of frequency performance under normal operation, including a requirement that generators tighten their dead bands and a tightening of the frequency operating standard. This report concludes that the more appropriate mechanism to procure the frequency services the system needs is one that is incentive-based. The AEMC and AEMO will continue to work together to develop such a mechanism, in consultation with stakeholders.
2.2	A future move towards a market-based mechanism for procuring fast frequency response should only occur if there is a demonstrated benefit.	This <i>Frequency control frameworks review</i> has considered the appropriateness of the existing FCAS market arrangements to meet emerging system needs, including the need for faster frequency services, and ways to facilitate co-optimisation between energy, FCAS and other system characteristics such as inertia. The AEMC and AEMO will continue to assess the need for fast frequency response and the most efficient means to procure that service.
2.5	Review the framework for power system security with respect to participation by distributed energy resources, and report on proposed rule changes to better incentivise this.	The AEMC has reviewed the regulatory framework as it relates to the participation of distributed energy resources in system security frameworks through this <i>Frequency control frameworks review</i> . The AEMC has identified some potential barriers to distributed energy resources providing system services, including FCAS, and makes recommendations, including proposed rule changes, on how they could be addressed. Further consideration of the findings of the AEMC's <i>Distribution market model</i> project were progressed through the AEMC's 2018 <i>Electricity network economic regulatory framework review</i> , which was published in July 2018.

The changes are another step towards a more resilient power system that can efficiently serve energy users into the future without imposing unnecessary costs on consumers.

#	RECOMMENDATION	DELIVERY
2.8	Review and update the regulatory framework to facilitate proof-of-concept testing.	There is an existing mechanism by which this can occur. AER considers each proposal on a case by case basis and can issue a letter of no action to allow proof of concept testing.
Distribution network-related Finkel recommendation		
6.8	Financial modelling to test if there is a preference for capital investments in network assets over operational expenditure on demand-side measures. Look at alternative models such as total expenditure approach.	<p>The issue of expenditure bias is due largely to the current method of separate assessment and remuneration opex and capex.</p> <p>In a future with high DER uptake and increased availability of non-network solutions using new technologies, the separate assessment and remuneration of capex and opex may not lead to the most efficient outcome.</p> <p>Incremental changes to the current incentive mechanisms are not likely to address the unbalanced incentives that can exist in certain circumstances, stakeholders' perceptions about biased incentives or the cultural issues that can also contribute to a bias towards capital expenditure.</p> <p>In light of this, the Commission considers it appropriate to review the method of expenditure assessment and remuneration as part of the 2019 Economic regulatory framework review.</p>

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