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## **Opportunity for a holistic review of reliability**

Grattan Institute response to the AEMC's Reliability Frameworks Review Issues Paper

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## Summary points

- Energy reliability and security are in the spotlight. Yet, the precise use of these terms by the market bodies is often poorly aligned with how they are understood by governments, the media and the community. The Review should address this misalignment.
- The current and future investment environment is more challenging than the Issues Paper acknowledges. More intermittent, zero-marginal-cost generation may mean the energy-only market no longer provides adequate pricing signals for investment in capacity. The reliability framework should encompass this new challenge.
- The reliability framework should address the multiple levels of reliability and security (immediate, daily, day-ahead, seasonal and longer-term) and the mechanisms for the market and AEMO's interventions to work together in a predictable way.
- It is unclear how the Reliability Frameworks Review complements the Finkel Review and other work on reliability being undertaken by AEMO and the AEMC. An integrated workplan should be developed by the Energy Security Board, identifying the individual focus of each workstream and how they complement each other.
- The Review is too narrow in its focus – it looks exclusively at existing mechanisms, missing the potential for a more holistic look at reliability. The Review should assess the sufficiency of existing mechanisms and canvass alternatives.
- The Reliability Framework for the NEM should provide a clear set of guidelines to be followed by AEMO that covers all circumstances (including a lack of private investment), works as far as possible with the existing spot and contracts markets, and is clearly understood by market participants and decision makers.
- Further information on the above points is contained in this submission, and in our report, *Next Generation*, attached.

## 1 Focus of the review

Reliability is currently a major concern for policymakers and consumers. As such the Reliability Frameworks Review is timely. But it is not clear whether and how the current Review complements other work underway. And the Review appears to have too narrow a focus, thereby failing to explicitly address broad concerns about the ability of the market to deliver reliability in the current policy environment.

### 1.1 Where does the Review sit?

There is a plethora of workstreams currently underway that have an impact on reliability of the NEM. In particular, the adopted recommendations of the Finkel Review outline a number of initiatives that may have a profound impact on the reliability framework.

Assessing the reliability framework in the current, fast-moving policy environment has significant dangers. The Review will need to keep pace, if it is to add value. The implementation of the full Finkel recommendations or the adoption of AEMO's recent recommendations to government on dispatchable capabilities, would change the landscape for this review.

The Review could even find itself in conflict with other activity occurring. For example, if the Review found that a Generator Reliability Obligation (GRO) would not be beneficial to reliability in the NEM, it would be in direct conflict with one of the agreed recommendations of the Finkel Review. At a time when industry

requires greater certainty from policymakers, this would be a less-than-desired outcome.

The reliability framework should be assessed in a world where the accepted Finkel recommendations are implemented. Work such as designing the GRO, assessing the suitability of a day-ahead market, and considering the need for an additional strategic reserve, should therefore be done first.

The AEMC should clearly set out where the Reliability Frameworks Review sits in relation to other activity by market bodies and the Energy Security Board (ESB). The Review needs to set out how it complements other work that is underway. At the current time, the governance of the NEM needs to be speaking with a single voice. An integrated workplan should be developed – under the ESB as the overarching body – that clearly shows how each piece of work delivers a singular outcome, to be owned by the market bodies.

### 1.2 Too narrow a focus

The existing spot and contract markets, with additional interventions available to AEMO, are explicitly identified as the starting point for a review of reliability in the NEM. Implicitly, this structure forms the foundation of any future reliability framework.

But the document never explicitly questions whether these structures, successful for most of the life of the NEM to date, are the right ones to have in place for the challenges of 2017 and

beyond. The Review is right to acknowledge that markets are not always – or are not allowed to be – ‘well-functioning’. The Review, however, fails to take the next step of acknowledging that the existing market might never be well-functioning.

There are two reasons why returning to first principles on the design of the market would be beneficial.

First, broad concerns about privatisation and the primacy of markets is under threat like never before. The case is no longer self-evident and is clearly no long accepted in the way described in the most recent National Energy White Paper. The benefits of market-based solutions and competitive pressures in delivering effective and efficient investment, operational, and consumption decisions should be at least restated. If the AEMC, as a result of work undertaken during this Review, considers market-based responses to be the most effective means of delivering reliability, then a more robust narrative is imperative. Failure to do so, will invalidate the Review’s outcomes in the eyes of some, and fail to restore the confidence of politicians and consumers.

Second, there are genuine challenges to the long-term functioning of the market that may warrant a substantial rethink. Many are questioning the effectiveness of the NEM as it is currently designed. These questions will need to be addressed in the Review and are discussed in more detail in sections 2 and 3.

Alternative market designs should be canvassed more explicitly, including the reasons they may be needed. To do so is not an

acknowledgement that the market has failed, or is going to fail. It merely reflects the current policy environment.

It may be the Commission’s view that well-functioning markets are the best solution. But it would be better if governments were informed of second-best options too, rather than taking a leap in the dark.

### 1.3 A holistic review of reliability

Separating the review of existing reliability frameworks from the review of reliability standards and settings potentially misses the opportunity to holistically review reliability. Ideally, reliability standards would be agreed first, and then various options for meeting the standard (existing frameworks and alternatives) can be reviewed with the end goal in mind.

The Review should work closely with the Reliability Panel to understand their assessment of the value placed on reliability and any potential changes to the reliability standard. How the two reviews will work together needs better explanation.

The Review should revisit the value that customers place on reliability (and demand-response). AEMO’s 2014 study was questionable at the time and is likely to be considerably out of date given the events of the past 18 months and enhanced public and political awareness of energy security.

The reliance on terms such as Unserved Energy (USE) or similar are poorly understood outside the world of experts and this is important when reports that discuss USE, LOR and LRC are used

as basis for policy interventions. Recent debate in the federal parliament around AEMO's 2017 Electricity Statement of Opportunities and associated media coverage using alarmist language illustrate this issue. AEMO's own communication material often is unhelpful in this regard.

The Review should explore how fundamental changes to the reliability standard would impact on the functioning of the market and the ability of market participants to meet a tighter or more relaxed standard.

Even if the current reliability standard is left unchanged, it should be better communicated to decision makers and the wider community. This means clarifying poorly understood terms such as 'reliability', 'security' and 'dispatchability' (and how they relate to commonly used terms such as 'baseload'). It would help to translate the reliability standard into a more accessible benchmark of how long consumers might expect to be without power, on average. And the consequences of a shortfall (blackouts vs. load-shedding) should also be clearly communicated to decision makers and the wider community.

## 2 The investment environment is challenging

New investment in capacity and capabilities will be required over the coming decade to meet the changing needs of the system and avoid supply shortfalls as further generation is withdrawn.

Industry has made it clear that policy stability, including a credible emissions reduction mechanism, is necessary to enable efficient investment in the right capacity to be made. Investment decisions for new generation require a degree of predictability about future market conditions. Yet stability and predictability in energy and climate change policy has been lacking over the past decade.

The Reliability Frameworks Review should identify the complications introduced by the RET and the absence of a credible, stable emissions reduction policy, and the outlook for new investment if those complications are addressed.

If all 50 Finkel recommendations receive the support of the Commonwealth, all states, and all major political parties, businesses will have greater certainty on government policy.

But will this be enough? The Reliability Frameworks Review needs to consider whether policy stability will be sufficient to ensure the market delivers the capacity and capabilities needed in the coming decade. And if policy stability is not sufficient or not achieved, what market changes or interventions will be required.

Government policy is not the only uncertainty facing investors:

- Rising demand has been an important driver of investment in the past, but the demand outlook is now flat;

- An ageing generation fleet means power station closures are on the horizon and the exact timing of these retirements may not always be predictable; and
- The increasing penetration of intermittent renewable generation creates new risks in an energy-only market.

Challenges with the variable nature of renewable energy are acknowledged in the Issues Paper but not the potential impacts of more zero-marginal-cost energy on investment. All generators – including wind and solar – may struggle to recover their full costs in the NEM as the proportion of intermittent renewables grows.

Prices are likely to be more volatile, with more low prices when wind and solar energy are available and more high prices when they are not. Extreme price volatility creates problems for an energy-only market. Governments would have to accept the need for very high prices in times of short supply. Market participants would have to increase both short-term hedging activity to manage risk, and longer-term contracting to secure investment. And households and businesses would also need to be more flexible in their electricity use when supply is tight. It will not be easy to meet all three conditions, and the Reliability Frameworks Review should not assume they will be met.

These issues are explored in more depth in our recent report, *Next Generation*, attached. The Reliability Frameworks Review should consider a broader range of risks to investment, beyond emissions policies, fuel prices and government interventions.

### 3 Will the existing market cope?

The Reliability Frameworks Review must address the fundamental question of whether existing frameworks and interventions are sufficient to meet community expectations for reliability.

The Issues Paper acknowledges the important role that the contracts market plays in underpinning new investment. The Reliability Frameworks Review should explore whether the existing contracts market is sufficient, alongside the spot market, to drive investment and retirement decisions to ensure reliability.

For example, has the combination of reduced liquidity in the contracts market and the prominence of vertically-integrated gentailers made a material difference? If so, what might address this problem? Does the market design need to be fundamentally changed?

AEMO's existing reliability interventions, and the triggers for those interventions, operate primarily to ensure existing physical capacity is available to meet both predicted and unpredicted circumstances. How might these powers be complemented or supplemented to ensure investment? And what would be the appropriate trigger/s?

In our recent report *Next Generation*, we recommend preliminary policy work on a capacity mechanism for the NEM, in case it is needed. Market redesign to accommodate a capacity mechanism would be complex and costly, but if the market cannot deliver the investment needed, then it is important to have a Plan B ready.

The operational rules and intervention options available to AEMO should be updated to reflect the current and emerging market. Clear guidelines for when intervention is required would provide reassurance to market participants, politicians and the public.

The Reliability Framework for the NEM should provide a clear set of guidelines to be followed by AEMO. The guidelines should identify appropriate action in the event of short, medium and long-term risks to reliability (including a lack of private investment). The Reliability Framework should work as far as possible with the existing spot and contracts markets, and be clearly understood by market participants and decision makers.

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