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BACKBONE OF THE NEM

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Towards a Nationally Consistent Framework for Transmission Reliability Standards

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COAG Brief to Reliability Panel

- COAG cautioned that the development of a consistent national framework for network security and reliability should be progressed taking into account…
  - the different physical characteristics of jurisdictional networks
  - existing regulatory treatments in balancing reliability and the cost of reliability to consumers
  - that jurisdictional reliability standards underpin security of supply
- Hence a “nationally consistent” framework does not mean that a single level of reliability (“one size fits all”) should apply at all locations across or within jurisdictions
- Reliability Panel draft report notes these areas of caution

Other COAG Requirements

- In the context of the NTP review COAG agreed that new planning arrangements must at a minimum be no slower than the present time taken to gain regulatory approval for transmission investment
- This should be an important consideration when contemplating a shift to a different form of reliability standard
- AEMC has stated that it will consider the Panel's advice in the context of the Commission's other recommendations concerning the role and functions of the NTP and the RIT

Principles for National Framework

Reliability Panel Principles	Grid Australia Criteria/ Comments
Transparency – there should be greater transparency in the processes used for setting standards	**Transparency** – **Agreed** but standards should also be "clear and specific" in how they are applied (understood by all participants)
Governance – standards should be set by a body independent of the body that must apply the standard	**Agreed**
Economic efficiency – reliability standards should be derived from economic considerations	**Economic efficiency** – **Agreed**
Specificity of standards – reliability standards should be clearly specified on a connection point or other geographical or load type basis	**Agreed**

Principles for National Framework

Reliability Panel Principles	Grid Australia Criteria/ Comments
"Fit for purpose" standards – reliability standards should be allowed to differ between and within jurisdictions according to criticality of load or customer value of reliability	**Agreed** – this principle is consistent with COAG's brief and supports the principle of economic efficiency
Accountability – TNSPs should be accountable to appropriate authority for meeting reliability standards and to the AER for performance against resulting service incentives	**Accountability** – **Agreed**. Requires that outcomes can be readily measured and compared with "clear and specific" planning standards
Maintenance of existing levels of reliability	**Agreed**
Technologically neutral – reliability standards should not favour network or non-network solutions	**Agreed** – this principle is consistent with the current framework for network investment

Principles for National Framework

Reliability Panel Principles	Grid Australia Criteria/ Comments
Consistency between transmission and sub-transmission standards – to facilitate joint planning of economically efficient outcomes	**Agreed**
	Robustness – framework is similar to that used in other developed countries comparable to Australia and can withstand external scrutiny
	Effectiveness – standards will facilitate timely delivery of investment to meet customer expectations of reliability and minimise disputes (as required by COAG)

Grid Australia Proposal (Option A)

- Nationally consistent framework in the NEL/ NER including…
  - a deterministic derived from economic considerations form of reliability standards (hybrid approach)
  - the process by which standards are set and reviewed
  - the body responsible for determining the standards
- Level of reliability standards…
  - set at customer connection points by a jurisdictional authority independent of the TNSP that must apply the standards in making investment decisions
  - set following a transparent process, cost-benefit assessment and public consultation
  - subject to 5-year review prior to each TNSP's revenue determination process

Assessment of Option A

Panel Principles	Assessment	
Transparency	Standards set by independent body following a transparent process set out in the NEL/ NER and public consultation. Standards derived from economic considerations but expressed as deterministic promote transparency in application of standards and hence accountability	☑
Governance	Standards set by a jurisdictional body independent of the TNSP that must apply the standards	☑
Economic efficiency	Standards set and reviewed on the basis of economic cost-benefit analysis. Standards expressed as deterministic promote transparency in setting efficient ex-ante capex allowances in AER revenue determinations.	☑
Specificity	Clear and specific connection point standards expressed in deterministic form are more readily understandable by all participants and will facilitate timely delivery of investment to meet customer expectations of reliability and minimise disputes	☑

Assessment of Option A

Panel Principles	Assessment	
Fit for Purpose	Level of standards set at a connection point level according to size and criticality of load	☑
Accountability	Standards derived from economic considerations but expressed as deterministic promote transparency in application of standards against which performance can be readily measured and compared	☑
Maintenance of existing level of standards	Option A is consistent with this principle	☑
Technologically neutral	Option A is consistent with this principle	☑
Consistency between transmission and sub-transmission	Standards derived from economic considerations but expressed as deterministic promote consistency with DNSP sub-transmission standards and efficient joint planning and least cost joint development	☑

Assessment of Option A

Other Principles	Assessment	
Robustness	Standards expressed as deterministic are consistent with those used in most other jurisdictions worldwide and can withstand external scrutiny	☑
Effectiveness	Standards derived from economic considerations but expressed as deterministic will facilitate timely delivery of investment to meet customer expectations of reliability and minimise disputes (as required by COAG)	☑

Concerns with Options B, C and D

- Probabilistic expression of standards fails the tests of transparency, specificity, accountability and effectiveness…
  - requires complex modelling and results in standards which are difficult to understand, measure and interpret
  - creates practical difficulties in assessing efficient ex-ante capex allowances in AER revenue determinations
- Fails test of robustness…
  - does not maintain consistency between transmission and DNSP sub-transmission standards to facilitate efficient joint planning and least cost joint development
  - would establish a framework that is inconsistent with the form of standards adopted in most other jurisdictions worldwide

Concerns with Options B, C and D

- Fails test of effectiveness (timeliness)…
  - more resource intensive
  - makes RIT more complex and open to disputes
  - complicates joint planning with DNSPs
- Grid Australia agrees with the Panel's observation…
  - "A shift to a different form of standard could involve significant changes in the resources required for transmission planning. For example, probabilistic standards may require greater modelling and analysis than deterministic standards, but may not deliver any different level of reliability"
- There is no question that significant additional (specialist and scarce) resources WOULD be required for no apparent additional benefit

Panel's Proposed Options E

- Proposed Option E…
  - satisfies all of the principles/ assessment criteria set by the Panel and by COAG
  - addresses the key requirement of market participants (including the NGF) for transparency of process in setting reliability standards
  - is consistent with accepted international practice
  - satisfies the assessment criteria proposed by Grid Australia
- The key point of difference between Options A and E is the concept of a national reference standard
- This concept may have some merit but further discussion is required to clarify the concept and its potential value

Panel's Proposed Options E

- Grid Australia notes that there are practical implementation issues that would need to be considered including…
  - potential for duplication of effort in setting connection point standards based on detailed economic assessments
  - reference standards would need to be set at a higher level to avoid this duplication
  - how a national reference standard can be reconciled and interacts with jurisdictional distribution reliability standards and joint planning
- Grid Australia considers that any national reference standard should be set by the AEMC on the recommendation of the Reliability Panel