



Government of Western Australia
Department of Finance
Public Utilities Office

Position Paper on the Proposed Design of a Reliability Advisory Committee in Western Australia

Department of Finance | Public Utilities Office
3 February 2016

TRIM: 01723755

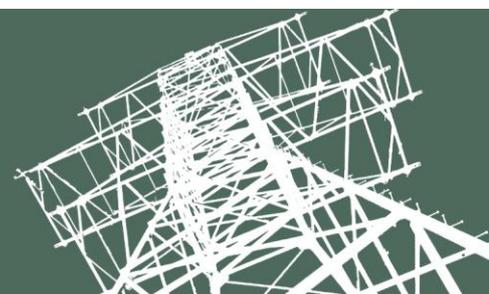


Table of Contents

Executive summary	2
1. Introduction.....	3
2. The need for reform.....	4
2.1 Definitions of Power System Reliability	4
2.1.1 Interactions with the National Electricity Market Model	4
2.1.2 Advantages of an Independent Local Entity	5
2.1.3 Reliability Functions to be conferred	6
3. Design Criteria	7
4. Proposed Design.....	8
4.1 The Role of the Economic Regulation Authority.....	8
4.1.1 Interactions with the Rule Change Body	8
4.1.2 Decision Making Process	8
4.1.3 Accountability and Oversight.....	9
4.1.4 Jurisdictional Comparisons.....	10
4.2 Legal Framework for Establishment.....	11
4.2.1 Legislation.....	11
4.2.2 Regulations.....	11
4.2.3 Terms of Reference.....	11
4.2.4 Rules.....	11
4.3 Proposed Composition of the Reliability Advisory Committee	12
4.3.1 Structure of Appointment.....	12
4.4 Funding Mechanism	13
5. Interactions with the National Regulatory Framework.....	14
5.1.1 Relationship to Network Reliability standards and requirements	16
6. Implementation and Timing.....	17
7. Consultation process.....	18
7.1 Invitation for submissions	18
7.1.1 Submission Summary.....	18
7.2 Publication of submissions	18
Appendix A : Proposed Power System Reliability Functions	20
Appendix B : Australian Energy Market Commission Reliability Panel	24
7.3 Requirements under the National Electricity Law.....	24
7.4 Current Australian Energy Market Commission Reliability Panel Members	24

Executive summary

The purpose of this Position Paper is to set out a proposed approach for assigning power system reliability functions in the South West Interconnected System, including to monitor, review and report on the reliability of the Wholesale Electricity Market. This paper also provides proposals for the governance of certain reliability functions defined in Chapter 5 of the National Electricity Rules, as well as the Network Quality and Reliability of Supply Code.

These functions are critical in maintaining a secure and reliable power system, with real implications for the quality and cost of supply to consumers. The reforms to institutional arrangements being undertaken as part of the Electricity Market Review and the design and requirements of the local market will influence many aspects of how power system reliability matters are undertaken in the South West Interconnected System. The decision to repeal the Technical Rules following the adoption of Chapter 5 of the National Electricity Rules will also require that an entity continue to undertake determinations on frequency operating standards for the South West Interconnected System.

The Electricity Market Review proposes conferring these reliability functions on a local entity - the Economic Regulation Authority. As part of this approach, it is also proposed that the Economic Regulation Authority be required to establish (through terms of reference or other formal instrument) an advisory panel of technical experts (i.e. a Reliability Advisory Committee) to assist and advise it in performing these functions.

The Electricity Market Review considers that establishing a local Reliability Advisory Committee to act as an advisory panel to the Economic Regulation Authority, offers the following benefits:

- avoided administrative and establishment costs because any decision making and determination functions are assigned to an existing organisation;
- containment of resourcing and operating costs because the Economic Regulation Authority already has experience with power system performance reporting and reliability functions and the establishment and management of advisory committees;
- appropriate balancing of technical and engineering standards with economic and financial considerations, reflecting the Economic Regulation Authority's statutory functions; and
- strong accountability and transparency, with all decisions on reliability issues subject to public scrutiny and oversight by the Board of the Economic Regulation Authority.

The Electricity Market Review invites submissions from stakeholders on the proposed design for the Economic Regulation Authority (having regard to advice from the Reliability Advisory Committee) to be responsible for specified power system reliability functions in Western Australia.

1. Introduction

Several standards defined in the Wholesale Electricity Market Rules, Western Power's Technical Rules, and the Network Quality and Reliability of Supply Code are critical to maintaining a secure and reliable power system in Western Australia. The determination of the reliability standard¹, for example, is an important policy decision in setting the level of tolerable risk of energy outages (unserved energy), with real implications for the quality and cost of supply to consumers. In the South West Interconnected System, the reliability standard is used to determine the volume of capacity required to prevent capacity shortfalls as part of the Reserve Capacity Requirement.

Other determinations include the system restart standard if a major blackout happens; system standards and access standards for network users such as generators or large customers; as well as requirements to develop and determine various guidelines to direct the Australian Energy Market Operator's management of aspects of power system performance and the reliability of supply. Reporting on any major power system incidents would also be required, such that measures are introduced to mitigate against similar incidents in the future.

Given their importance and the need to account for local circumstances and market design, the Electricity Market Review proposes that an independent, local entity be conferred responsibility to undertake several functions relating to the monitoring, reviewing and reporting on system performance and reliability, and the determination of relevant reliability standards.

This Position Paper sets out:

- the rationale for a local entity to be responsible for the review and reporting of power system performance and reliability standards and guidelines;
- a preferred high-level approach to power system reliability matters;
- how the preferred approach interacts with the national network regulatory framework;
- how the preferred approach interacts with the reliability provisions of the Reserve Capacity Mechanism in the determination of the Reserve Capacity Requirement; and
- implementation and timing considerations.

Submissions from stakeholders are invited on the proposed approach. While specific matters on which submissions are sought are identified throughout this paper, submissions need not be limited to these items.

¹ Also known as the 'Planning Criterion' as per Wholesale Electricity Market Rule 4.5.9

2. The need for reform

2.1 Definitions of Power System Reliability

The definition of 'reliability' holds different meanings across different industries, and even within the power sector itself. It can relate to both:

- the need to ensure there is enough capacity to generate and transport electricity to meet all consumer demand (generation adequacy reliability);² and
- the performance of the transmission and distribution networks within the South West Interconnected System (network reliability).

In contrast, the closely related concept of power system security is the ability of the power system to survive sudden shocks or upsets such as faults or equipment failures without cascading failures or loss of stability (e.g. normal, high risk and emergency operating states).

This Position Paper is primarily concerned with reliability functions (including generation adequacy and network reliability), and not power system security. The Electricity Market Review considers that, where appropriate, these reliability functions for the Wholesale Electricity Market would be best transferred to an independent body to provide regulatory clarity, as well as improve governance around the setting of standards.

It is expected that the setting of power system security standards will largely fall under the remit of the Australian Energy Market Commission (see 2.1.1 below), and the jurisdictional specific network reliability requirements (e.g. network capacity, power quality and service standards) will be specified in a revised *Electricity Industry (Network Quality and Reliability of Supply) Code 2005*.

These network reliability requirements currently apply to Western Power through its *Access Arrangement, Electricity Networks Access Code 2004* and the *Technical Rules*³ - but these documents will cease to apply and be repealed from 1 July 2018.

2.1.1 Interactions with the National Electricity Market Model

Under the National Electricity Law, the Australian Energy Market Commission is required to establish a Reliability Panel. Its work program is set by requirements in various chapters in the National Electricity Rules. For example, the Australian Energy Market Commission Reliability Panel is required to periodically review the reliability standards and recommend reliability settings which are expected to achieve this standard for the National Electricity Market.⁴

² Reliability is also an economic construct to the extent that it must be cost-effective for generators and networks to have enough capacity to meet demand at all times.

³ The National Electricity Rules do not contain provisions that specify the jurisdictional specific network reliability planning criteria and reliability service standards that a network must meet. These are matters that jurisdictional governments administer for each network regulated under the national framework.

⁴ The market reliability settings are the market price cap, the cumulative price threshold, and the market floor price. These settings balance investment signals for new generation against the financial risks to participants in the National Electricity Market's wholesale sector.

The Electricity Market Review has considered what role, if any, the Australian Energy Market Commission Reliability Panel could have in the South West Interconnected System as part of transitioning to a more nationally-consistent regulatory framework.

For example, some chapters of the National Electricity Rules which Western Australia will be adopting have strong linkages to the power system security and reliability requirements in Chapter 4 of the National Electricity Rules. This is particularly the case in the instance of Chapter 5, which provides a connection, access and compliance framework for larger generators and customers, as well as performance standard obligations on network service providers. Maintaining these links is important for the effective operation of the total regulatory framework. It is therefore proposed that the Australian Energy Market Commission Reliability Panel continue to undertake the majority of functions prescribed in Chapter 5 of the National Electricity Rules. In parallel, it is also likely that the power system security and reliability rules in Chapter 4 of the National Electricity Rules will be mirrored into the Wholesale Electricity Market Rules, to the extent practicable.⁵ This will allow the links between Chapter 5 (which is being adopted) and Chapter 4 of the National Electricity Rules to remain intact.

However, the Electricity Market Review considers that the National Electricity Market approach to system performance and reliability matters from a generation adequacy perspective (i.e. Reserve Capacity Requirements) is inconsistent with the capacity oriented wholesale electricity market structure in the South West Interconnected System. As a consequence, the reliability matters related to generation adequacy in the wholesale electricity market in Western Australia have no equivalents in the national framework.

Given these differences, the Australian Energy Market Commission Reliability Panel would need to perform additional bespoke system performance reporting and reliability functions related to generation adequacy for the Wholesale Electricity Market. This would require the role and experience of the Australian Energy Market Commission Reliability Panel to be expanded, which is unlikely to be supported by other jurisdictions (particularly given the likely cost impact of these expanded functions). The Commonwealth Government has also expressed concern over this approach and prefers the establishment of a local reliability body. The Electricity Market Review supports the view of the Commonwealth.

2.1.2 Advantages of an Independent Local Entity

There are several advantages of conferring reliability functions on a single, independent and local entity:

- It maintains local control over the design and structure of the market's reliability requirements, enabling state specific matters to be appropriately accommodated (e.g. the reserve capacity methodology);
- It provides market participants and consumers with an independent body for consultation and improves governance around policy making and setting of standards (which previously did not exist when the Independent Market Operator undertook reliability review functions).

⁵ The Electricity Market Review is currently forming a working group to focus on power system security and reliability matters that need to be addressed. It should be noted that many of the existing system security requirements in Western Power's Technical Rules have in fact been based on the National Electricity Rules.

- It ensures that regulated parties in Western Australia are held to appropriate standards in the long term interests of customers; and
- It still maintains consistency with the national framework and the functions and processes undertaken by the Australian Energy Market Commission Reliability Panel.

2.1.3 Reliability Functions to be conferred

The Electricity Market Review has been working with the Australian Energy Market Operator, the Australian Energy Market Commission, and Western Power (System Management) to delineate the boundaries of functions relating to power system security and reliability, with the understanding that the oversight (e.g., the ‘setting’, ‘review’, ‘report’, or ‘determination’) of any reliability standards or methodologies will be the responsibility of an independent entity, and any implementation or application of the reliability standards (e.g. calculations for reserve capacity auctions) will be conducted by the Australian Energy Market Operator.

The Electricity Market Review considers that for the South West Interconnected System, the core determination functions for a local entity would include:

- the power system reliability standard (i.e. the planning criterion methodology and market settings);
- frequency operating standards;
- the system restart standard; and
- jurisdictional standards relating to network reliability (contained within the Network Quality and Reliability of Supply Code).

Appendix A provides a summary of all power system reliability functions that the Electricity Market Review proposes will need to be undertaken by an independent local entity in Western Australia.⁶ The table also indicates whether these functions have equivalence in the national framework, whether they encompass existing Wholesale Electricity Market Rules, or whether they are likely to be new requirements driven by the changes to the electricity market structure and procedures in Western Australia.

In addition, as part of the Network Regulation workstream to finalise the Application Act and the move to the national framework, it has been confirmed that a local Western Australian entity will need to be conferred functions relating to frequency operating standards under Chapter 5 of the National Electricity Rules (identified in italics in Appendix A).⁷

⁶ These functions provide a preliminary view – refinements are expected following further consultation with the Australian Energy Market Operator and System Management and additional functions are likely to be identified as other Electricity Market Review projects mature.

⁷ The Drafting Instructions for the National Electricity Rules have a provision to insert a new definition of the ‘WA Reliability Panel’ as identified under the WA Application Act.

3. Design Criteria

The Electricity Market Review's examination of approaches to assign reliability functions in the South West Interconnected System was guided by the following criteria:

- minimal conflicts of interest (e.g. potential ministerial involvement, or conflicts in assessing the performance of the Australian Energy Market Operator's market operation functions);
- the ability to leverage existing expertise and efficiencies in corporate overheads;
- flexibility and powers to consider matters outside the Wholesale Electricity Market Rules (e.g. related network reliability matters and reliability recommendations for non-SWIS networks); and
- providing a least cost option to customers achieving the required level of performance of the functions in question.

Further, given the unique structure (and relatively small size) of the energy market in Western Australia, the Electricity Market Review has recognised the importance of leveraging the expertise of existing Western Australian institutions, most notably the local regulator – the Economic Regulation Authority; and the new Rule Change Body, also being established as part of the Electricity Market Review.

On this basis, a minimalistic ('light-touch') approach in terms of regulatory and administrative burden was also identified as a preferred criterion for the design. This would also provide the benefits of simplicity and ease of implementation.

The Electricity Market Review considers that the proposed approach outlined in this paper is the most suitable for the South West Interconnected System. In addition, delegating decision making authority to an existing local body, and leveraging the Australian Energy Market Commission Reliability Panel, where possible, avoids the additional burden required to establish another new decision making entity in Western Australia (e.g., legislating the immunity and insurance provisions and funding mechanisms required).

Submissions providing feedback on the design criteria are encouraged.

4. Proposed Design

4.1 The Role of the Economic Regulation Authority

The Electricity Market Review proposes the Economic Regulation Authority be conferred the responsibility to review, and make recommendations and determinations on power system reliability matters relating to generation adequacy and wholesale electricity market reliability issues.

As part of this responsibility, it is also proposed that the Economic Regulation Authority be required to establish (through terms of reference or other formal instrument) an advisory panel of technical experts (i.e., a Reliability Advisory Committee⁸) that it must consult to provide the Authority with technical advice and input on reliability issues. This input will help to inform the Authority's performance of these functions. In effect, this would institute the Economic Regulation Authority as a complimentary body to the National Electricity Market's "Reliability Panel" under the Australian Energy Market Commission.

4.1.1 Interactions with the Rule Change Body

It is proposed that whilst the Economic Regulation Authority would act as the decision maker for any determinations of reliability standards, it would still be required to submit rule change proposals or procedure changes to the Rule Change Body for any resultant changes required to reliability methodologies or processes prescribed in the Wholesale Electricity Market Rules and related Market Procedures.⁹

Therefore, in practice, the Wholesale Electricity Market Rules would only encapsulate the processes and methodologies that the Australian Energy Market Operator must follow relating to system performance and reliability matters, with a reference to the actual reliability standards as being "determined by the Economic Regulation Authority" and potentially residing and being updated in a separate publication. This would replace the full (five month) rule change process with the normal consultation processes of the Economic Regulation Authority, allowing it to set standards periodically, for example, updating the frequency operating standards to account for changes in system characteristics (e.g. new technology or lower inertia power stations). This is effectively the same process that is undertaken in the National Electricity Market, whereby the Australian Energy Market Commission Reliability Panel is required to make recommendations for some functions via the Australian Energy Market Commission's rule change process, but for other standards, can make decisions and determinations independently.

4.1.2 Decision Making Process

Consistent with the minimalistic design criterion, it is proposed that the Reliability Advisory Committee would not have the authority to commission analysis or to commit resources and expenditure in its own right. However, it may recommend which external providers or technical input it requires from other sources, jurisdictions or entities, that the Reliability

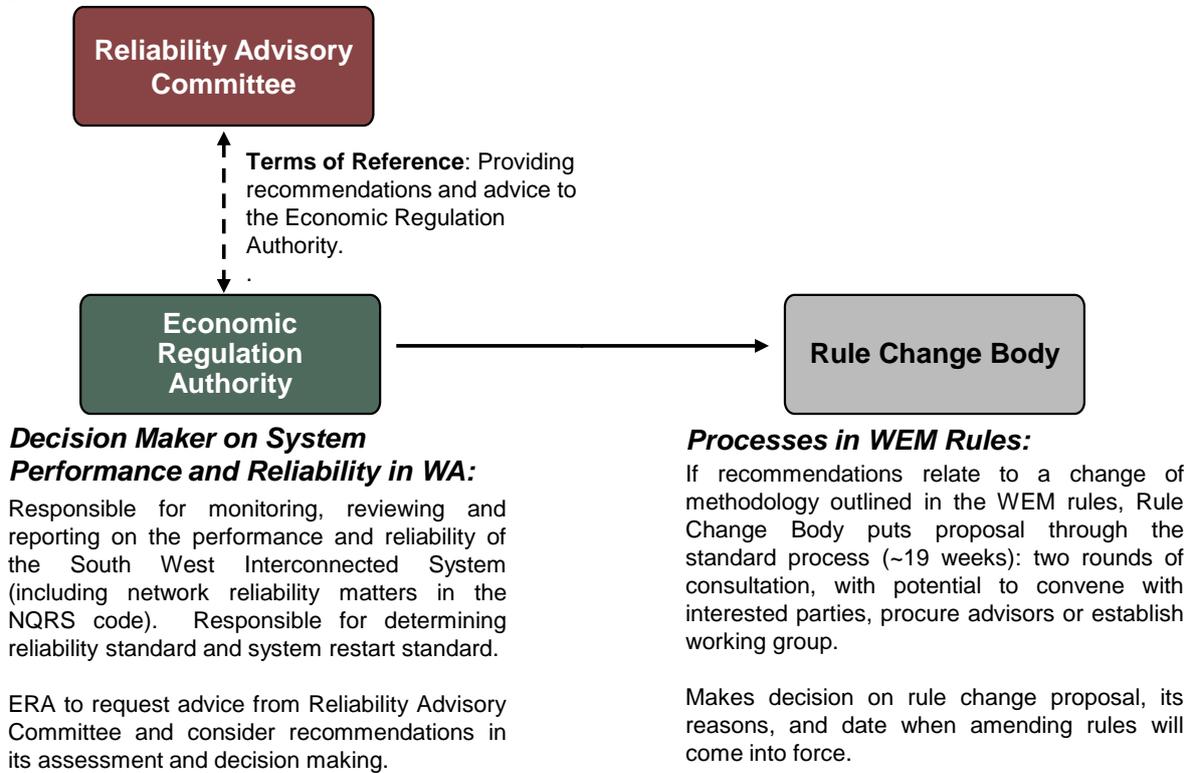
⁸ The name has purposely avoided the use of 'reliability panel' to distinguish it from references to the national Australian Energy Market Commission Reliability Panel.

⁹ The alternative option of the Rule Change Body acquiring all reliability functions was also considered in detail. However, given the Rule Change Body does not adequately meet the specified design criteria, this option was deemed unviable – i.e. matters to be considered are expected to stretch beyond the boundaries of the Wholesale Electricity Market (i.e. Network Quality and Reliability of Supply Code).

Advisory Committee believes will assist in its role advising the Economic Regulation Authority in the performance of its assigned functions.

Figure 1: Proposed decision making process

Technical experts and advisory panel:



The Economic Regulation Authority has been consulted and is supportive of this design approach, noting that a similar structure is already in place for the Technical Rules Committee that currently advises the Economic Regulation Authority regarding Western Power’s Technical Rules.

Proposal – The Economic Regulation Authority is given responsibility for power system reliability matters and is required to establish a Reliability Advisory Committee to assist it in the performance of these functions.

Submissions providing feedback on the role of the Economic Regulation Authority are encouraged.

4.1.3 Accountability and Oversight

There are several governance benefits in having the Economic Regulation Authority providing oversight for any recommendations made by the Reliability Advisory Committee. Firstly, the Economic Regulation Authority would provide accountability through its requirement to consider the additional matters prescribed in Section 26 of the *Economic Regulation Authority Act 2003* – i.e., in undertaking its reliability functions, or following

receipt of any advice from the Reliability Advisory Committee, the Economic Regulation Authority would need to have regard to:

- a. the need to promote regulatory outcomes that are in the public interest;
- b. the long-term interests of consumers in relation to the price, quality and reliability of goods and services provided in relevant markets;
- c. the need to encourage investment in relevant markets;
- d. the legitimate business interests of investors and service providers in relevant markets;
- e. the need to promote competitive and fair market conduct;
- f. the need to prevent abuse of monopoly or market power;
- g. the need to promote transparent decision-making processes that involve public consultation.

Additional criteria to guide decision making on reliability matters can also be prescribed to assist the Economic Regulation Authority when it is considering advice from the Reliability Advisory Committee, although at this stage, the Electricity Market Review considers the above list sufficiently exhaustive.

Further, for any recommendations that involve proposing changes to reliability methodologies or processes prescribed in the Wholesale Electricity Market Rules, additional accountability would be introduced through the rule change process, given the Rule Change Body would need to have regard to the market objectives as well as conduct the formal consultation processes. This additional oversight would provide valued transparency to market participants, and the checks and balances in this approach would be particularly relevant to the Western Australian market where the capacity mechanism might give rise to material price sensitivities when it is revised.

4.1.4 Jurisdictional Comparisons

Whilst the proposed design is more ‘light-touch’ than in the National Electricity Market (which allows for the Australian Energy Market Commission Reliability Panel to make some determinations with full decision making authority), a comparable minimalistic approach is used in New Zealand, where the equivalent ‘Security and Reliability Council’ is appointed to provide independent advice to the Electricity Authority (the electricity market regulator) on power system reliability of supply issues. The Electricity Authority’s Board holds all decision making powers, and also acts as the secretariat services provider for the Security and Reliability Council.

Questions – Are there additional criteria that the Economic Regulation Authority should adhere to when making decisions or considering recommendations from the Reliability Advisory Committee? Are there any models used in other jurisdictions that you recommend the Electricity Market Review consider adopting for the Western Australian context?

Submissions providing feedback on the oversight and accountability of the proposed design are encouraged.

4.2 Legal Framework for Establishment

The Electricity Market Review proposes that the conferral of these functions on the Economic Regulation Authority occur by stand-alone regulations. This will provide for ongoing flexibility for other transmission and distribution systems to be made subject to the oversight of the Economic Regulation Authority in the future (e.g. the North West Interconnected System). This would not be the case if the functions were exclusively defined in the Wholesale Electricity Market Rules.

4.2.1 Legislation

There are already powers under the *Economic Regulation Authority Act 2003* that allow for the Economic Regulation Authority to be conferred functions by or under any other enactment.¹⁰

However, consequential amendments are expected to be made to the *Electricity Industry Act 2004* to create a new regulation-making power to enable the conferral of functions on the Economic Regulation Authority, permit the creation of the Reliability Advisory Committee and to allow the Economic Regulation Authority to undertake functions outside of the Wholesale Electricity Market.

4.2.2 Regulations

It is proposed that stand-alone regulations to confer reliability functions on the Economic Regulation Authority are made under new regulation-making power in the *Electricity Industry Act 2004*. These regulations would also require the Economic Regulation Authority to establish the Reliability Advisory Committee to assist with decision making in regard to those functions.

4.2.3 Terms of Reference

A Terms of Reference is proposed as the most suitable means of establishing the Reliability Advisory Committee. This Terms of Reference would be issued by the Economic Regulation Authority¹¹, in accordance with the requirements specified in the regulations, and outline:

- scope of the role;
- details of the functions to be performed;
- membership details, including desirable selection criteria for Committee members, the numbers of members and the term of appointment of members (see section 4.3 below); and
- compliance, accountability and reporting requirements.

4.2.4 Rules

Existing Wholesale Electricity Market rules pertaining to reliability reviews and determinations will need to be revised to account for the transfer of functions to the Economic Regulation Authority.

¹⁰ Part 4, Section 25 (f): “the functions it is given by or under any other enactment”

¹¹ The Economic Regulation Authority may also re-issue Terms of Reference each time the Reliability Advisory Committee is requested to provide advice, should the details of functions change.

The Electricity Market Review will develop these rules in consultation with other work streams, the Australian Energy Market Operator, System Management, and the Economic Regulation Authority.

4.3 Proposed Composition of the Reliability Advisory Committee

In establishing the Reliability Advisory Committee as an advisory body to the Economic Regulation Authority, there will be a high degree of freedom as to how to populate the committee and appoint members. It is expected that the membership will consist of industry experts, with deep knowledge and experience in technical and power system reliability matters. The Electricity Market Review envisages a membership similar to that of the Australian Energy Market Commission Reliability Panel for the national market (see Appendix B).

While the precise requirements for composition are yet to be defined, it is proposed that general membership details for the Reliability Advisory Committee would specify:

- at least 3 and no more than 9 participating members, including a chairperson appointed by the Economic Regulation Authority;
- a composition of senior members of the Western Australian electricity industry, including consumers, who between them have appropriate knowledge and experience of the electricity industry to provide advice to the Economic Regulation Authority;
- that prospective members:
 - are able to provide impartial advice;
 - have high integrity and a sense of public duty; and
 - have a high level of credibility within the electricity industry, such that they can speak in a considerable level of authority on reliability issues.

Further, it is proposed that the Economic Regulation Authority could appoint ‘observers’ as appropriate, to compliment the role of formal members in undertaking their functions. It is envisaged that invited observers may participate in discussions but would not be recognised as official members of the Reliability Advisory Committee, or be included as part of the quorum.

4.3.1 Structure of Appointment

It is proposed that appointments to the Reliability Advisory Committee are for three years, staggered and with re-appointment permitted. For members appointed by the Economic Regulation Authority, candidates may self-nominate for selection (based on qualifications, experience and a defined selection criteria). Members that are representing specified organisations or roles would need to advise the Economic Regulation Authority who would be representing their respective organisation.

The Economic Regulation Authority, in selecting members, would also be responsible for ensuring that any persons appointed to the Reliability Advisory Committee satisfy some form of ‘statement of independence’¹² to reduce the potential for conflicts of interest – particularly

¹² For example, the independence test in Schedule 2 of the Australian Energy Market Operator Constitution states that a non-executive director is considered ‘independent’ if he/she is “...not a member of management and is free of any business or

where members are drawn from representatives of market participants. The independence of the chairperson is most essential to ensure any advice provided to the Economic Regulation Authority is unbiased.

Submissions providing feedback on the proposed composition are encouraged.

4.4 Funding Mechanism

The ongoing reliability functions to be undertaken by the Economic Regulation Authority (with assistance from the Reliability Advisory Committee) are expected to be close to cost neutral in comparison to existing market operations, as the majority of 'generation adequacy' reliability functions to be undertaken are based on existing Wholesale Electricity Market Rules and requirements (previously undertaken by the Independent Market Operator - see Appendix A).

The current arrangements for funding of power system reliability functions are through cost-recovery from market participants, and the Electricity Market Review sees no basis for changing these arrangements. Therefore, for functions relating to Wholesale Electricity Market Rules, it is expected that the Australian Energy Market Operator will continue to recover fees.

For functions relating to matters outside the Wholesale Electricity Market Rules, the *Economic Regulation Authority Act 2003* provides that regulations may make provision for the payment of fees and charges in connection with the performance of the Economic Regulation Authority's functions. Therefore, this head of power should also allow regulations to be made to deal with payment for the performance of these additional (network reliability and non-South West Interconnected System) functions.

Submissions providing feedback on the funding arrangements are encouraged.

other relationship that could materially interfere with the exercise of their unfettered and independent judgement or could reasonably be perceived to do so."

5. Interactions with the National Regulatory Framework

The Electricity Market Review has sought legal advice and confirmed there are no legal jurisdictional barriers to the proposed design and its interactions with national frameworks and entities. The legislation implementing the national network regulatory framework in Western Australia has already provided for State-specific derogations¹³ and therefore it should be a relatively straightforward exercise (in drafting terms) to define that when operating in Western Australia under the Application Act, any references to the “reliability panel” in the National Electricity Rules that are to be transferred to a local entity (i.e. frequency operating standards in Chapter 5) are to be read as references to the “Economic Regulation Authority”. This is also why it is proposed that the separate advisory panel previously referred to as the Reliability Panel be specifically called the Reliability Advisory Committee to avoid any confusion relative to arrangements under the National Electricity Rules.

A high level delineation of these roles and responsibilities relating to system security, system reliability and network reliability is detailed in Figure 2 for the National Electricity Market. Figure 3 details the corresponding design proposed for Western Australia’s Wholesale Electricity Market. Sections marked in yellow highlight the specific role of the Australian Energy Market Commission Reliability Panel, and the equivalent role proposed for the Economic Regulation Authority in the South West Interconnected System.

¹³ E.g. To account for Western Australia remaining a non-interconnected jurisdiction and retaining its wholesale electricity market.

Figure 2: High level delineation of roles and responsibilities – National Electricity Market

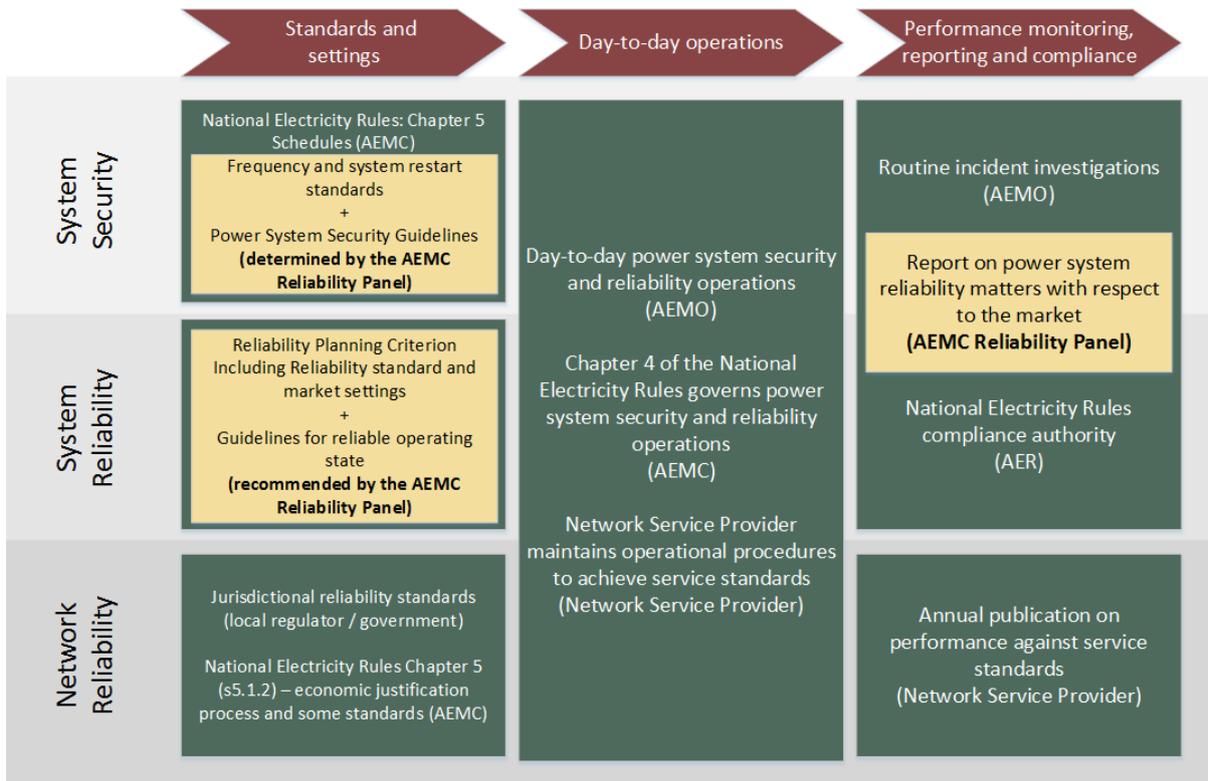
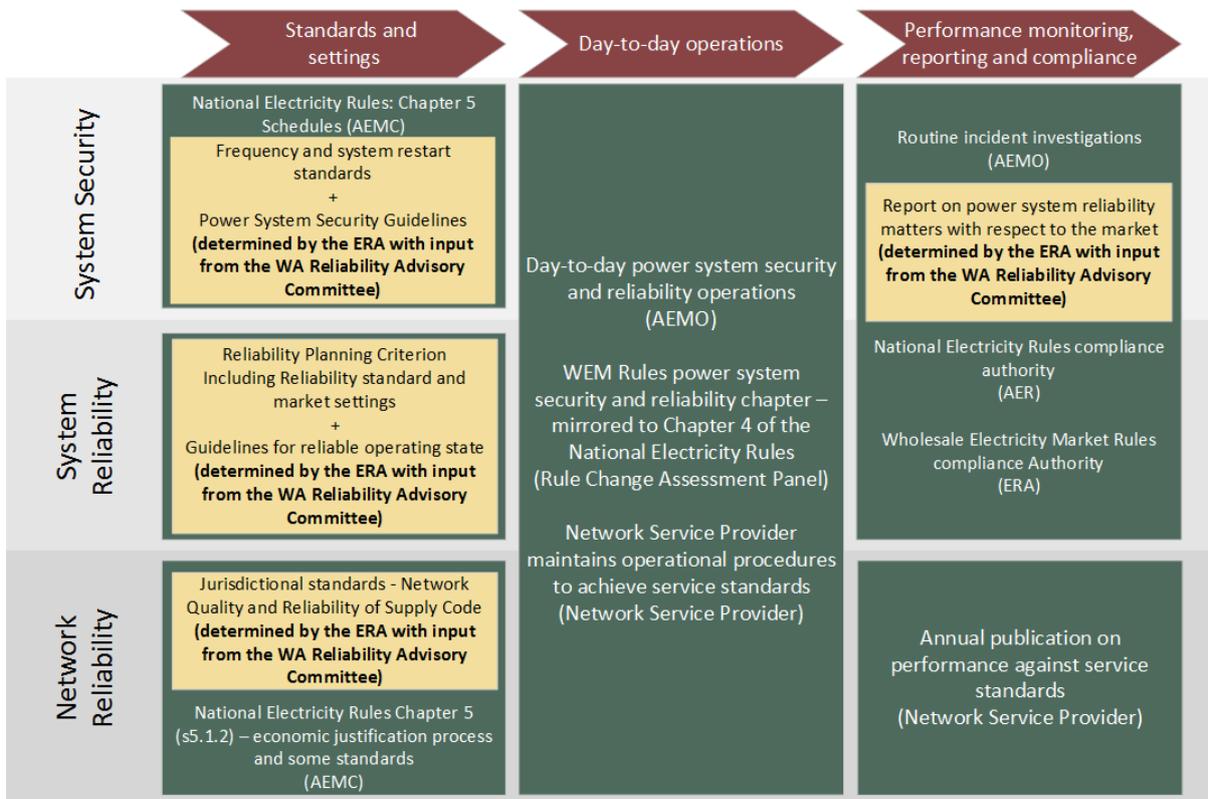


Figure 3: High level delineation of roles and responsibilities – Wholesale Electricity Market



5.1.1 Relationship to Network Reliability standards and requirements

A project operating in parallel as part of the Network Regulation work stream has engaged a consultant to determine if the Network Quality and Reliability of Supply code could benefit from changes in its governance structure. As part of this process, once the Reliability Advisory Committee is established, there may be the potential for it to provide guidance and recommendations on the requirements in the Network Quality and Reliability of Supply Code. The amended Network Quality and Reliability of Supply Code will need to be implemented when the Technical Rules are repealed in July 2018.

It is proposed that from 1 July 2018, the Economic Regulation Authority will continue to have oversight over the Network Quality and Reliability of Supply Code, but with the additional requirement to seek advice from the Reliability Advisory Committee when making determinations.

6. Implementation and Timing

Enabling regulations required for the conferral of functions on the Economic Regulation Authority are expected to be in place by mid-2016. It is proposed that by January 2017, some functions will be able to be undertaken¹⁴, whilst others will need to wait until the Technical Rules are repealed in July 2018.

Transitional timing constraints will also need to be considered for functions that have remained with the Independent Market Operator on the expectation that they will ultimately be transferred to another entity. Recognising that there may not be the technical expertise or resources remaining within the Independent Market Operator following the transfer of operations to the Australian Energy Market Operator, the multi-year reviews have all been deferred by transitional provisions, so that they do not need to be conducted earlier than 31 October 2017 (the next scheduled review – the Maximum Reserve Capacity Price methodology review - was due to be completed by November 2016).

There may need to be additional provisions to reschedule these reviews (i.e. delay or bring forward some reviews to stagger them) so that the timing of several reviews do not coincide.

Proposal – The Reliability Advisory Committee is established by mid-2016 to assist with early specification of reliability standards (e.g. frequency standards) and initiating reviews on market settings and methodologies, before commencing all functions from 1 July 2018 when the Technical Rules are repealed.

Submissions providing feedback on the implementation plan and proposed timelines are encouraged.

¹⁴ For example, to assist the WEM Improvement's work stream, it will be useful to have the Reliability Advisory Committee provide certainty about what the frequency standards will be from 1 July 2018, as the new frequency control ancillary services will be structured to meet the standards. If there is any likelihood that these frequency standards might change, then the Reliability Advisory Committee would ideally make its recommendation much prior to 1 July 2018, even if the changes did not take effect until this date, following the repeal of the Technical Rules.

7. Consultation process

7.1 Invitation for submissions

Respondents are invited to comment on the proposed design for a local entity to be responsible for power system reliability matters as outlined in this Position Paper. Submissions need not be limited to those items identified for comment throughout the paper.

Submissions are due by 17 February 2016 and must be sent to the following email address: electricitymarketreview@finance.wa.gov.au

Email submissions are to be entitled “Western Australian Reliability Advisory Committee Position Paper Response - [Name of the submitting company or individual]”.

7.1.1 Submission Summary

To ensure accurate representation of views expressed in submissions, respondents are also encouraged to complete and attach the following summary table that summarises their viewpoints regarding specific matters pertaining to the Reliability Advisory Committee:

Table 7.1: Summary of Submission

Respondent	Proposed Design	Role of ERA			Reliability Advisory Committee (RAC)	
	Generally Supportive	Appoint Committee members	Must consult RAC when undertaking functions	Sufficient decision-making guidance	Independent Committee of experts	AEMC officer on Committee
[Name of the submitting company or individual]	✓ / ✗	✓ / ✗	✓ / ✗	✓ / ✗	✓ / ✗	✓ / ✗

7.2 Publication of submissions

Submissions will be available for public review at www.finance.wa.gov.au/publicutilitiesoffice, unless you request that your submission be treated as confidential.

Please indicate clearly on the front of your submission if you wish all or part of it to be treated as confidential. Contact information, other than your name and organisation (where applicable) will not be published.

Requests may be made under the *Freedom of Information Act 1992 (WA)* for any submissions marked confidential to be made available. Requests made in this manner will be determined in accordance with the provisions under that Act.

Disclaimer

© State of Western Australia

The information, representations and statements contained in this publication have been prepared for the Electricity Market Review and are provided for discussion and general information purposes only. Views expressed in this publication are not necessarily the views of the Western Australian Government or Minister for Energy and are not government policy. The State of Western Australia, the Minister for Energy, the members of the Electricity Market Review Project Office and Steering Committee, and their respective officers, employees and agents:

- (a) make no representation or warranty as to the accuracy, reliability, completeness or currency of the information, representations or statements in this publication (including, but not limited to, information which has been provided by third parties); and
- (b) shall not be liable, in negligence or otherwise, to any person for any loss, liability or damage arising out of any act or failure to act by any person in using or relying on any information, representation or statement contained in this publication.

Appendix A : Proposed Power System Reliability Functions

Note: (a) Words in [square brackets] denotes items that are expected to be refined following further consultation with the Australian Energy Market Operator, System Management and legal advice.

(b) Each of the functions 1 to 9 may result in subsequent rule change proposals or procedure changes to reflect the recommendations in methodologies or processes contained within the Wholesale Electricity Market Rules and related Market Procedures.

#	FUNCTIONS TO BE CONFERRED	COMMENTS	BASED ON: NATIONAL RULES	BASED ON: WEM RULES / OTHER
1	<p>Review and, having regard to the market information provided by the Australian Energy Market Operator¹⁵, report and make recommendations annually on the performance of the market in terms of:</p> <ul style="list-style-type: none"> - the reliability standards (reliable operating states); - power system incidents; and - any other matters or rule changes related to power system performance and reliability and which the Reliability Advisory Committee considers necessary. 	<p>Review the standards against what is acceptable.</p> <p>Additional reporting functions to be considered:</p> <ul style="list-style-type: none"> • [capacity factors]; • [forced outage rate]; • [large scale (Under frequency load shedding events) vs small scale localised events]. 	<p>8.8.1 (a) (1)</p> <p>8.8.1 (a) (5)</p>	<p>Chapter 3 – 3.8.1-3.8.6</p> <p>Technical Rules</p>
2	<p>Having regard to the market information provided by the Australian Energy Market Operator, determine the system restart standard.</p> <ul style="list-style-type: none"> - Conduct [at least] 5 yearly reviews of the system restart standard 	<p>May require additional Wholesale Electricity Market rules to incorporate Economic Regulation Authority determination functions.</p>	<p>8.8.1 (a) (1a);</p>	<p>3.7</p> <p>3.10.6</p>
3	<p>Having regard to the market information provided by the Australian Energy Market Operator, determine the system frequency operating standards.</p> <ul style="list-style-type: none"> - Conduct [at least] 5 yearly reviews of the system frequency operating standards and report recommendations. 	<p>Will likely be moved from the Technical Rules to a new publication under Economic Regulation Authority oversight.</p>	<p>8.8.1 (a) (2),</p> <p>S5.1a.2</p> <p>4.2.5</p>	<p>3.1,</p> <p>Technical Rules (2.2)</p>

¹⁵ i.e. the Australian Energy Market Operator will provide data and background information pertaining to operating states.

#	FUNCTIONS TO BE CONFERRED	COMMENTS	BASED ON: NATIONAL RULES	BASED ON: WEM RULES / OTHER
4	<p>Review and make recommendations on the Planning Criterion (reliability standard) and reliability setting:</p> <ul style="list-style-type: none"> - Conduct [at least] 5-yearly reviews of the long term capacity 'Planning Criterion' methodology and settings - Conduct [at least] 5-yearly reviews of the reserve capacity price methodology - Determine and conduct [at least] 5-yearly reviews of the forecasting methodology for capacity procurement - Make recommendations into the 5-yearly reviews of the energy price caps and price floor 	<p>Proposal (separation of roles):</p> <ul style="list-style-type: none"> • Economic Regulation Authority to review long term capacity 'Planning Criterion' methodology and settings [at least] every [5] years; and • Australian Energy Market Operator to review and report on Statement of Opportunities (4.1.8 & 4.5.11); calculate the reserve capacity based on the reliability settings (Planning Criterion) determined by the Economic Regulation Authority; and determine the short, medium and long term PASA 	<p>8.8.1 (a) (1b), 3.9.3A, 3.9.3B</p> <p>8.8.1 (a) (2a), 4.2.6(b)</p> <p>8.8.1 (c)</p>	<p>4.5.9 4.5.2A 4.5.15-4.5.20 2.26.3 (f)</p> <p>4.1.19 4.16.3 4.16.9</p>
5	<p>Review and, having regard to the market information provided by the Australian Energy Market Operator¹⁶, make recommendations [as required] on the value of lost load for use in planning decisions</p>	<p>For example, the cost of network augmentation vs cost of lost load and the cost of generation constrained dispatch vs cost of lost load</p>		<p>3.3 3.4 3.5</p>
6	<p>While the Australian Energy Market Operator has power to enter into contracts for the provision of reserves, determine policies and guidelines governing Australian Energy Market Operator's exercise of that power</p>	<p>Appropriate for the Economic Regulation Authority to set the guidelines on when procurement must occur and approving procurement.</p> <p>Background: No capacity has been dispatched through the equivalent mechanisms in the National Electricity Market or the Wholesale Electricity Market but contracts have been entered into in both markets.</p> <p>Requires Wholesale Electricity Market rule change to include oversight.</p>	<p>8.8.1 (a) (4)</p>	<p>4.24.1 – 4.24.2</p>

¹⁶ i.e. the Australian Energy Market Operator will provide data and background information pertaining to system operation.

#	FUNCTIONS TO BE CONFERRED	COMMENTS	BASED ON: NATIONAL RULES	BASED ON: WEM RULES / OTHER
7	Review Ancillary Service Requirements Process and Ancillary Service Standards [at least] every 5 years	<p>Ancillary Service requirements influence power system reliability because they influence the ability of the power system to withstand unplanned events while remaining within its operating standards.</p> <p>For Wholesale Electricity Market rule 3.11.10 – 3.11.13 - at present System Management produces, and the Independent Market Operator approves, the Annual Ancillary Services Report and Plan. N.B this will need to be updated in line with ancillary services regime changes (in conjunction with other Electricity Market Review reforms) – e.g. frequency control ancillary services.</p>		3.15.1-3.15.3
8	Conduct a 5-yearly review (with the assistance of the Australian Energy Market Operator) of the outage planning process against the Wholesale Market Objectives	<p>Unique to Wholesale Electricity Market. (left with Independent Market Operator to be assigned)</p>		3.18.18- 3.18.19
9	Conduct [at least] 3-yearly reviews of the Relevant Level Methodology	Used by the Independent Market Operator to determine the quantity of Certified Reserve Capacity for a Facility for a given Reserve Capacity Cycle, where the Market Participant has applied for certification of the Facility (usually an Intermittent Generator) under clause 4.11.2(b).		4.11.3C - 4.11.3E
10	Review and make recommendations on standards within the Network Quality and Reliability Supply Code and any network reliability impacts on overall power system reliability	Regulatory link to allow the Economic Regulation Authority to seek Reliability Advisory Committee advice (e.g. connection, access, frequency standards etc.). Network regulations workstream is leading the update for the Network Quality and Reliability Supply code. Consultant report due Feb 2016.	8.8.1 (b)	New

REFERENCES IN CHAPTER 5 of NATIONAL ELECTRICITY RULES (ADDITIONAL FUNCTIONS TO BE CONFERRED)				
11	<i>The frequency operating standards are system standards and are as determined by the <u>Reliability Panel</u> and published by the AEMC.</i>	See function (3) above. Frequency operating standards to be moved from the Technical Rules to either the Wholesale Electricity Market Rules or a new publication with Economic Regulation Authority oversight.	S5.1a.2	3.1, Technical Rules (2.2)
12	<i>Transient frequency limit and transient frequency time mean the values of 47.5 Hz and 9 seconds respectively, or such other values determined by the <u>Reliability Panel</u>.</i>	See function (3) above. Frequency operating standards to be moved from the Technical Rules to either the Wholesale Electricity Market Rules or a new publication with Economic Regulation Authority oversight.	S5.2.5.3(a)	
13	<i>In making a determination in accordance with clause 5.3.3(b2) the <u>Reliability Panel</u> must consult Registered Participants and AEMO using the Rules consultation procedures.</i>	There will be a corresponding reference to require the Economic Regulation Authority to employ its normal consultation processes (outside of the rule change process) with Wholesale Electricity Market participants.	5.3.3(b4) 8.9	

Appendix B : Australian Energy Market Commission Reliability Panel

7.3 Requirements under the National Electricity Law

Under the National Electricity Law, the Australian Energy Market Commission is required to establish a Reliability Panel. Section 38 of the National Electricity Law provides that the functions of the Australian Energy Market Commission Reliability Panel are:

- to monitor, review and report on the safety, security and reliability of the national electricity system, in accordance with the National Electricity Rules
- at the request of the Australian Energy Market Commission, to provide advice in relation to the safety, security and reliability of the national electricity system
- to manage and execute any other functions or powers conferred on it under the Law and the Rules.

The Australian Energy Market Commission Reliability Panel determines standards and guidelines which help maintain a secure and reliable power system. Its work program is set by requirements in various chapters in the National Electricity Rules.

Relevantly, the Australian Energy Market Commission Reliability Panel is required to periodically review the reliability standards and recommend reliability settings which are expected to achieve this standard for the National Electricity Market. It also reviews and determines:

- the power system security standards (including the frequency operating standards for the National Electricity Market mainland and for Tasmania);
- the system restart standard;
- access standards for network users such as generators or large customers; and
- guidelines to direct the market operator's management of aspects of power system security and the reliability of supply. These include the guidelines for the management of electricity supply shortfall events.

7.4 Current Australian Energy Market Commission Reliability Panel Members

- Neville Henderson, Chairman and Australian Energy Market Commission Commissioner
- Trevor Armstrong, Chief Operating Officer, Ausgrid
- Murray Chapman, Group Manager Market Policy Development, Australian Energy Market Operator
- Stephen Davy, Chief Executive Officer, Hydro Tasmania
- Gavin Dufty, Manager Policy and Research, St Vincent de Paul Society, Victoria
- Chris Murphy, Manager Regulatory and Commercial, Meridian Energy
- Nick Sankey, Head of Utilities Energy and Renewables, Commonwealth Bank
- Richard Wrightson, General Manager Energy Portfolio Management, AGL Energy
- Merryn York, Chief Executive Officer, Powerlink