

Meeting Agenda

Meeting Title: Market Advisory Committee

Date: Tuesday 11 June 2019

Time: 9:30 AM – 11:30 AM

Location: Training Room No. 2, Albert Facey House
469 Wellington Street, Perth

Item	Item	Responsibility	Duration
1	Welcome	Chair	5 min
2	Meeting Apologies/Attendance	Chair	5 min
3	Minutes of Meeting 2019_04_30	Chair	5 min
4	Actions Items	Chair	5 min
	(a) Action Item 4/2019 – Multiple generators on a single line forming the largest single contingency (presentation – late paper)	AEMO	30 min
5	MAC Market Rules Issues List	Chair	10 min
6	Update on the Energy Reform Strategy		
	(a) Status Update (presentation – no paper)	ETIU	15 min
	(b) Market Design and Operation Working Group (MDOWG) Update (verbal update – no paper)	ETIU	5 min
	(c) Power System Operation Working Group (PSOWG) Update (verbal update – no paper)	AEMO	5 min
7	AEMO Procedure Change Working Group Update	AEMO	5 min

Item	Item	Responsibility	Duration
8	Rule Changes		
	(a) Overview of Rule Change Proposals	Chair	5 min
9	Relevant Level Method -- Rule Change Proposal Presentation to the MAC	ERA	20 min
10	General Business <ul style="list-style-type: none"> Stakeholder Satisfaction Survey (28 June 2019 to 15 July 2019) 	Chair	5 min

Next Meeting: 15 August 2019

Please note, this meeting will be recorded.

Minutes

Meeting Title:	Market Advisory Committee (MAC)
Date:	30 April 2019
Time:	09:30 AM – 11:05 AM
Location:	Training Room No. 2, Albert Facey House 469 Wellington Street, Perth

Attendees	Class	Comment
Stephen Eliot	Chair	
Matthew Martin	Minister's Appointee – Small-Use Consumer Representative	
Martin Maticka	Australian Energy Market Operator (AEMO)	
Dean Sharafi	System Management	
Sara O'Connor	Economic Regulation Authority (ERA) Observer	
Andrew Everett	Synergy	
Kei Sukmadjaja	Network Operator	Proxy for Margaret Pyrchla
Jacinda Papps	Market Generators	
Daniel Kurz	Market Generators	
Patrick Peake	Market Customers	
Geoff Gaston	Market Customers	
Peter Huxtable	Contestable Customers	

Apologies	Class	Comment
Margaret Pyrchla	Network Operator	
Wendy Ng	Market Generators	

Also in attendance	From	Comment
Jenny Laidlaw	RCP Support	Minutes
Aden Barker	Public Utilities Office (PUO)	Presenter to 10:10 AM
Matt Shahnazari	ERA	Observer from 10:05 AM
Rajat Sarawat	ERA	Observer from 9:40 AM

Oscar Carlberg	Synergy	Observer
Dimitri Lorenzo	Bluewaters Power	Observer
Matthew Bowen	Jackson McDonald	Observer
Chayan Thananchayan	Kleenheat	Observer
Tim McLeod	Amanda Energy	Observer
Scott Davis	Australian Energy Council	Observer
Natalie Robins	RCP Support	Observer
Sandra Ng Wing Lit	RCP Support	Observer

Item	Subject	Action
1	Welcome	
	<p>The Chair opened the meeting at 9:30 AM and welcomed members and observers to the 30 April 2019 MAC meeting.</p> <p>The Chair:</p> <ul style="list-style-type: none"> welcomed the new and re-appointed members to the MAC: Mrs Jacinda Papps, Ms Wendy Ng, Mr Daniel Kurz, Mr Geoff Gaston, Mr Patrick Peake, and Mr Peter Huxtable; farewelled former members Mr Shane Cremin and Dr Steve Gould; noted that there are now two vacant Market Customer representative positions, and that the Rule Change Panel (Panel) is running a process to fill these positions; and noted that Mr Will Bargmann has retired from the MAC and that Synergy has appointed Mr Andrew Everett in his place. 	
2	Meeting Apologies/Attendance	
	The Chair noted the attendance as listed above.	
3	Minutes from Previous Meeting	
	<p>Draft minutes of the MAC meeting held on 5 February 2019 were circulated on 25 February 2019. The Chair noted that a revised draft showing tracked changes suggested by Mr Ben Williams was distributed in the meeting papers.</p> <p>Subject to these changes, the MAC accepted the minutes as a true and accurate record of the meeting.</p>	
	Action: RCP Support to amend the minutes of the 5 February 2019 meeting to reflect the agreed changes and publish them on the Rule Change Panel's website as final.	RCP Support

Item	Subject	Action
4	Action Items	<p>The closed action items were taken as read.</p> <p>Actions 19/2017 and 33/2017: The Chair noted that action items 19/2017 and 33/2017 were to be progressed as part of the Wholesale Electricity Market (WEM) Reform Program; and questioned whether they should be moved from the action item list to the MAC Market Rules Issues List (Issues List). MAC members agreed to move the two issues to the Issues List. Mrs Papps requested that RCP Support update the description of the issue in action item 19/2017 to include more detail (e.g. the relevant Market Rules clause references).</p> <p>Action 2/2019: Mr Martin Maticka provided a clarification of the IT cost estimates provided by AEMO to RCP Support in 2018 and to the MAC on 5 February 2019 to support the recalculation of Theoretical Energy Schedules (TES) after the current 15 Business Day deadline. Mr Maticka advised that the original estimate provided to RCP Support included costs for regression testing that were not included in the quote provided to the MAC. Mr Maticka considered that the original quote would be accurate if the TES changes were made in isolation, but if the changes were made in conjunction with other changes that also required a full regression test then the incremental cost would be quite small.</p>
5	MAC Market Rules Issues List	<p>The MAC noted the recent updates to the Issues List.</p> <p><u>New Issues:</u></p> <p>The Chair noted that the issues in action items 19/2017 and 33/2017 would be included in the Table 4 (Issues on Hold) of the Issues List.</p> <p><u>Issue 53:</u></p> <p>The MAC recommended that a Low urgency rating be assigned to new issue 53 (TES Recalculation).</p> <p><u>Issues 5, 6 and 41:</u></p> <p>The Chair sought the views of MAC members on whether the 'Guideline to inform Balancing Market offers' (Guidelines) published by the ERA on 22 February 2019 had addressed the Issues List issues 5 (Improved definition of SRMC), 6 (Improved definition of Market Power) and 41.</p> <p>Mrs Papps considered that submissions on the draft Guidelines indicated that many Market Participants did not agree with the interpretation of market power in the document. Mr Everett</p>

Item	Subject	Action
	<p>agreed, considering that many of the submissions had questioned some of the interpretations in the draft Guidelines and the ERA had not embraced those views.</p> <p>Mr Rajat Sarawat noted that the Guidelines are clearly non-binding and are not intended to be an extension of the Market Rules. Mr Sarawat noted that the ERA had taken submissions into account when finalising the Guidelines.</p> <p>The MAC agreed that it did not need to undertake further work on issues 5, 6 and 41 in the context of developing Rule Change Proposals, and therefore the issues should be closed.</p> <p><u>Issue 52:</u></p> <p>The Chair noted that issue 52 (how should potential future scenarios be managed where multiple generating units that are connected to the same line constitute the largest credible contingency, without imposing excessive constraint payment costs on Market Customers) had been included in the Issues List, as agreed at the 5 February 2019 MAC meeting.</p> <p>Mr Dean Sharafi considered that although the issue had been placed on hold pending the outcomes of the WEM Reform Program, it should be discussed at an upcoming MAC meeting because the problem was expected to materialise in 2020, well before the completion of the WEM Reform Program.</p> <p>Mr Matthew Martin confirmed that the PUO planned to address the issue as part of the WEM Reform Program but acknowledged that stakeholders might wish to take earlier action. Mrs Papps questioned whether the issue would be considered by the Power System Operation Working Group (PSOWG) and a solution implemented prior to October 2022.</p> <p>Mr Sharafi noted that largest single contingency could be up to 550 MW. Ms Laidlaw considered the main issue was whether System Management should activate more Spinning Reserve or constrain generation in these situations, and if the latter option was taken, what compensation should be paid to the constrained generators. Mr Everett expressed concern that at times of low demand there may not be room to enable enough plant to provide such high levels of Spinning Reserve.</p> <p>There was some discussion about what actions System Management was empowered to take under the current Market Rules, and specifically how much Spinning Reserve it could activate in different situations.</p> <p>Mr Patrick Peake considered the Technical Rules should be reviewed to prevent the connection of multiple generators on a single line without consideration of the Spinning Reserve cost implications. Mr Sharafi suggested there were multiple solutions</p>	

Item	Subject	Action
	<p>to the problem, such as upgrading the network to reduce the size of the contingency, and other market options that would affect Market Participants. Mr Sharafi reiterated his view that the MAC should discuss these options.</p> <p>The Chair noted that while he was happy for the MAC to be a venue to discuss the issue, RCP Support could not lead the analysis of options. There was some discussion about preparing for a MAC discussion of the issue, and the likely timing of the PUO's work on the issue.</p> <p>The MAC agreed to include a discussion of the issue on the agenda for its 11 June 2019 meeting; and for RCP Support and AEMO to work together to prepare some slides to help guide that discussion.</p> <p><u>Issue 35:</u></p> <p>Mr Peake noted his understanding that the Minister had commenced work on 'behind-the-meter' issues and flagged Issues List issue 35 (BTM generation and apportionment of Market Fees, ancillary services, etc) for consideration as part of that work.</p> <p>Action: RCP Support to schedule a discussion of MAC Market Rules Issues List issue 52 (multiple generators on a single line forming the largest single contingency in the SWIS); and develop a presentation with AEMO to guide that discussion.</p>	<p>RCP Support/ AEMO</p>

6 Update on the Network and Market Reform Program

Mr Aden Barker provided the following updates on the WEM Reform Program.

- The PUO expected to hold the next meeting of the Market Design and Operation Working Group (**MDOWG**) in early June 2019, focusing on ancillary service procurement. While the PUO had originally intended to hold an earlier meeting to discuss the relevant principles and options, it had since decided it would be better to delay the meeting to be able to present more concrete proposals for stakeholder comment.
- The release of a consultation paper on scheduling and dispatch had been delayed, in part following a request by the Minister. The PUO was working internally to scope the two major initiatives recently announced by the Minister (the Whole of System Plan and the Distributed Energy Resource (**DER**) Roadmap) and to ensure that the work being

Item	Subject	Action
	<p>conducted under the WEM Reform Program was properly integrated with those projects.</p>	
	<ul style="list-style-type: none"> • The proposed information sheet for Market Participants discussed at the previous WA Electricity Consultative Forum (WAECF) was likely to be slightly expanded, due in part to the limits on the information that the PUO can readily access from AEMO. The PUO was working with AEMO to develop the information sheet, to distribute the information sheet to Market Participants, and to manage handling the information thereafter. • The PUO was continuing to work with AEMO and Western Power on the regulatory architecture for power system security and reliability. This includes the way matters such as the Frequency Operating Standards and generator performance standards might evolve going forward by way of enforcement, monitoring, and change management processes; and whether the current placement of those various requirements in the Technical Rules and Market Rules is working. The PUO expected to develop a proposal for Government over the next few months. • Participation and registration of storage in the WEM was discussed at length during the 12 March 2019 MDOWG meeting. The PUO was continuing discussions with AEMO on the content of the information sheets that are to be published by AEMO to provide clarity to industry on the requirements for storage participation in the WEM. Mr Barker reiterated the benefits of Market Participants engaging with Western Power as early as possible regarding their potential storage projects. • In relation to network reform, the PUO was continuing to work with Western Power, providing advice on options for implementation of constrained network access. 	
	<p>In response to a question from Mr Sharafi, Mr Barker clarified that the inclusion of generator performance standards in the Market Rules was one of the options being considered by the PUO. Mr Barker noted that the current Technical Rules and Market Rules did not reflect the recent transfer of system management functions from Western Power to AEMO. This transfer had occurred during the Electricity Market Review, at a time when it was envisaged that many of the issues under consideration would be resolved by the proposed move to the national framework for network regulation. Work was now required to align the relevant functions and ensure that obligations are imposed in the correct places and appropriate monitoring systems are in place.</p>	

Item	Subject	Action
	<p>Mr Barker noted that the PUO intended to consult with generators regarding how generator performance standards are to be imposed going forward.</p> <p>Mr Martin noted that the PUO received seven sets of comments on the draft rule amendments for the Minister's Reserve Capacity Mechanism (RCM) pricing reforms. The PUO was working with its lawyers on any actions needed to address those comments and intended to complete that process later in the week. The PUO planned to discuss any changes with the parties who had provided comments; and then publish the updated rules and a document outlining the comments received and changes made, before seeking signoff on the final rules from the Minister. The PUO was working towards a revised target date of 1 June 2019.</p> <p>In response to a question from Mr Kurz, Mr Martin confirmed that the certification window for the 2019 Reserve Capacity Cycle would still open on 1 May 2019.</p> <p>Mr Sharafi advised that the next PSOWG meeting was planned for mid-to-end May 2019. AEMO was currently putting together some material for that meeting and working on the agenda with the PUO.</p>	
7	<p>AEMO Procedure Change Working Group (APCWG) Update</p> <p>Mr Maticka advised the MAC that the next APCWG meeting was scheduled for 2 May 2019. The agenda included changes to several Market Procedures resulting from the Rule Change Proposal: Removal of Resource Plans and Dispatchable Loads (RC_2014_06).</p> <p>Mr Maticka noted that AEMO received no submissions regarding the procedure changes (AEPC_2019_03) to support the Rule Change Proposal RC_2017_06: Reduction of prudential exposure in the Reserve Capacity Mechanism. AEMO aimed to publish the Procedure Change Report at the end of April 2019.</p> <p>The MAC noted the update on AEMO's Market Procedures.</p>	
8(a)	<p>Overview of Rule Change Proposals</p> <p>The Chair noted the following:</p> <ul style="list-style-type: none"> • The Final Rule Change Reports for Rule Change Proposal RC_2018_06: Full Runway Allocation of Spinning Reserve Costs; and RC_2018_07: Removal of constrained off compensation for Outages of network equipment were due to be published that morning (30 April 2019). • RCP Support intended to hold a workshop in June 2019 on Rule Change Proposal RC_2017_02: Implementation of 	

Item	Subject	Action
	<p>30-Minute Balancing Gate Closure. The purpose of the workshop is to discuss the two options for reduced gate closure (90-minute and 60-minute) that appear to be technically feasible based on information provided by AEMO; and what issues need to be considered and what analysis needs to be undertaken to progress the proposal.</p> <ul style="list-style-type: none"> The Panel had received a Rule Change Proposal from Enel X relating to changes to the Relevant Demand calculation. If the Rule Change Proposal was progressed, then the first submission period would be extended to allow discussion of the proposal at the next MAC meeting on 11 June 2019. <p>In response to a question from Ms Laidlaw, several MAC members expressed interest in attending a drafting review workshop in June 2019 for the Rule Change Proposal RC_2013_15: Outage Planning Phase 2 – Outage Process Refinements.</p> <p>The MAC noted the overview of Rule Change Proposals.</p>	

8(b) Pre-Rule Change Discussion on Capacity Valuation for Intermittent Generators

Ms Sara O'Connor presented the ERA's recommendations from its recent review of the Relevant Level Methodology and consulted with the MAC about the ERA's intention to develop a Rule Change Proposal to implement those recommendations. A copy of the ERA's presentation is available on the Panel's website.

The following points were discussed.

- Ms O'Connor noted the ERA's recommendation to include the details of the methodology in a Market Procedure and sought feedback from the MAC on which agency should have responsibility for that Market Procedure. Ms Laidlaw noted that usually the agency responsible for the operation of a process was responsible for the development of the Market Procedure.
- Mr Sharafi noted that AEMO was yet to be satisfied that the proposed methodology would not adversely affect power system reliability by failing to ensure there was enough capacity to meet a one-in-ten-year peak demand event. Dr Matt Shahnazari explained that the proposed model was based on the Planning Criterion and a loss of load expectation of one day out of ten years. There was some discussion about how the model worked and how the ERA proposed to determine a single effective load carrying

Item	Subject	Action
	<p>capability (ELCC) value for the intermittent fleet using sample data from multiple years.</p>	
	<ul style="list-style-type: none"> • Mr Maticka noted that the current method was a simple process and suggested that the proposed method would be more expensive to administer. Mr Maticka questioned whether the added value of the proposed method would be worth the additional development and administrative costs. Ms O'Connor replied that the ERA had been able to create a model at low cost. Dr Shahnazari noted that the model was technically quite simple and had already been replicated by at least one stakeholder. Dr Shahnazari also considered that the additional computational cost burden was negligible because the ERA would be required to develop and run the same model to calculate accurate values for the K parameter under the current method. • Mr Peake asked whether System Management would use a similar probabilistic model to forecast Intermittent Generator output for PASA reserve margin calculations. Mr Peake considered it was problematic if different methods were used to forecast Intermittent Generator output for certification and outage scheduling. 	
	<p>Mr Maticka considered this was a good point that probably should be investigated. Dr Shahnazari agreed, noting that the ERA discussed the effect of scheduled maintenance on capacity values in the technical appendix to its final report.</p>	
	<p>Dr Shahnazari considered that scheduled maintenance could usually be ignored in a system adequacy assessment model under the assumption that maintenance would be undertaken when the system was not under pressure. However, this assumption depended on there being enough spare capacity available to allow for scheduled maintenance. The ERA was likely to consider the effect of scheduled maintenance and its potential effects on system adequacy in its next review of the Relevant Level Methodology.</p>	
	<p>Ms O'Connor noted that the ERA intended to confirm its assumption that scheduled maintenance was not an immediate concern during the development of the Rule Change Proposal.</p>	
	<ul style="list-style-type: none"> • Ms O'Connor noted that conflicts existed between the proposed and current Relevant Level Methodologies and the rules for early certification of Reserve Capacity and conditional certification of Reserve Capacity. Ms O'Connor sought the views of the MAC as to whether these conflicts 	

Item	Subject	Action
	<p>should be addressed as part of the ERA's Rule Change Proposal.</p> <p>Ms Laidlaw noted the concern was that the proposed methodology could not be used to assign a specific number of Capacity Credits for a Capacity Year before the normal certification process for that Capacity Year. Ms Laidlaw suggested that the Minister's RCM pricing reforms and the proposed approach to certification under a constrained network access regime were also likely to likely conflict with the early or conditional certification of Reserve Capacity for new Intermittent Generators.</p> <p>Ms O'Connor suggested that the concepts of early and conditional certification could be removed altogether from the Market Rules. Ms Laidlaw questioned whether the concepts were still required. There was some discussion about when and whether the provisions had been used, with Mr Maticka confirming that at most their use was rare.</p> <p>Mr Maticka advised against the ERA expanding the scope of its Rule Change Proposal to address the problems with early and conditional certification. Mr Maticka suggested that the problems could be considered to be manifest errors in the Market Rules.</p> <p>Ms Laidlaw questioned whether in future Facilities with long lead times (which might benefit from the early and conditional certification options) were likely to be built in the WEM. Mrs Papps noted that certification and the assignment of Capacity Credits has been delayed for several years; and questioned whether certification should be moved closer to the Capacity Year on a permanent basis. Mr Maticka considered that, while a one-year lead time is not a problem in times of excess capacity, it may not be enough to support generators with longer development times or the need to build supporting network infrastructure.</p> <p>Mrs Papps agreed with Mr Maticka that the issue around early and conditional certification should be addressed separately from the ERA's Rule Change Proposal.</p> <p>Mr Maticka suggested that the issue be added to the Issues List or, if there was agreement that the problem was a manifest error, addressed through a Rule Change Proposal developed by the Panel. The Chair expressed some doubt as to whether the problem was a manifest error in the Market Rules.</p> <p>Dr Shahnazari considered it might be possible to support the early certification of Intermittent Generators by assigning them a preliminary, conservative minimum</p>	

Item	Subject	Action
	<p>certification value that was subject to later revision. However, whether early and conditional certification were useful options in the Market Rules was a separate question. Dr Natalie Robins noted that the technical appendix of the ERA's final report included information on how other jurisdictions dealt with new plant entering the market.</p> <p>The MAC agreed to include the problems relating to early and conditional certification of Intermittent Generators on the Issues List.</p>	
	<ul style="list-style-type: none"> • Ms O'Connor noted that the ERA developed its proposed Relevant Level Methodology on the understanding that the capacity values calculation would then feed into a constrained network access-based capacity allocation. This approach, which was based on advice in the PUO's consultation paper "Allocation of capacity credits in a constrained network", was not necessarily the approach taken in other jurisdictions. • There was some discussion about the dependence of the methodology on assumptions about which generators would be operating and the extent to which they would be able to generate concurrently under the likely network constraints. Dr Shahnazari considered that any problem with the proposed methodology was also a problem with the current methodology, because similar assumptions were needed to calculate a value for the K parameter. • Ms O'Connor advised that the ERA intended to hold its annual energy markets workshop on 16 May 2019 and would be happy to continue discussion about the Rule Change Proposal at that workshop. Ms O'Connor noted that the ERA would proceed with the development of the Rule Change Proposal and would provide the MAC with some cost details before formally submitting the Rule Change Proposal. • Ms O'Connor asked if the MAC required any further information, or if there were any other ways that the MAC wished to be consulted about the proposal before its formal submission into the rule change process. Mr Oscar Carlberg asked whether the proposed methodology was more sensitive to changes to which Scheduled Generators were operating in the WEM, and if so whether it would be possible to get some information about that sensitivity. <p>Ms O'Connor replied that under the proposed methodology (and other methodologies) the capacity value of a generator depended on the condition of the system, including what other generators existed in the system. If many generators</p>	

Item	Subject	Action
	<p>enter or exit the market the effects may be significant. Ms O'Connor advised that the ERA can provide additional scenarios to demonstrate the sensitivity, but also noted that the proposed use of a rolling average ELCC value over 10 years instead of a median value would help to mitigate such sensitivities. Dr Shahnazari noted the model needed to show some sensitivity to such changes because excessive mitigation could risk system reliability.</p> <p>Ms O'Connor agreed to develop some additional scenarios for presentation to the MAC in advance of finalising the Rule Change Proposal.</p>	
	<p>Action: RCP Support to include the conflict between the current and proposed Relevant Level Methodologies and the early and conditional certification of new Intermittent Generators in the MAC Market Rules Issues List.</p>	RCP Support
	<p>Action: The ERA to provide an update to the MAC regarding the expected costs for its proposed changes to the Relevant Level Methodology.</p>	ERA
	<p>Action: The ERA to give a presentation to the MAC demonstrating the sensitivity of the proposed Relevant Level Methodology in the WEM to the entry and exit of Scheduled Generators.</p>	ERA
9	<p>Conflict of Interest Considerations</p> <p>The Chair noted that during the Panel's consideration of the Rule Change Proposal RC_2018_05: ERA access to market information and SRMC investigation process, some questions were raised about the Panel's consideration of a Rule Change Proposal put forward by the ERA. The Chair advised that the Draft Rule Change Report for RC_2018_05 contained discussion to address those issues. However, the Panel also asked RCP Support to put the matter before the MAC once again.</p> <p>The Chair took the agenda item paper as read and asked MAC members and observers whether they had any remaining concerns with the arrangements in place to manage potential conflicts of interest where the Panel processes Rule Change Proposals submitted by the ERA. The following points were discussed.</p> <ul style="list-style-type: none"> • Mrs Papps sought clarification of the dotted line linking the Executive Officer and the Energy Markets division in the corporate structure diagram on page 59 of the meeting papers. Mrs Papps noted that the line was not present in 	

Item	Subject	Action
	<p>the corresponding diagram on page 52. The Chair and Mr Sarawat explained that the line represented the administrative resourcing arrangements for RCP Support, in that the Executive Officer liaised with the Manager of the Energy Markets division to obtain the resources needed to support the Panel.</p>	
	<ul style="list-style-type: none"> Mrs Papps asked whether staff from the RCP Support, Strategic Projects, Market Regulation and Compliance teams were switched from one team to another as resourcing needs require. Mr Sarawat replied that staff could be moved from one team to another to meet resourcing demands, but the work of each team remained distinct. 	
	<p>Dr Robins noted that she previously worked in the Market Regulation team and reported to Ms O'Connor and Mr Sarawat but had recently moved to RCP Support where she reported to Ms Laidlaw and the Chair. Dr Robins clarified that she was not involved in the processing of any Rule Change Proposals developed by the ERA, due to the potential conflict of interest.</p>	
	<p>Mrs Papps indicated her concern related more to staff from Market Regulation switching to Compliance, if those staff had access to data and information from some of the broader reviews undertaken by the Market Regulation team. Mr Sarawat noted that the ERA used the data it received in accordance with the Market Rules, and it would be a breach of the Market Rules to use data for a purpose that is not allowed by the Market Rules.</p>	
	<ul style="list-style-type: none"> Mr Peake clarified that Perth Energy did not actually raise allegations of conflict of interest in its submission on RC_2018_05 but had expressed concerns about the appearance of the arrangement. 	
	<ul style="list-style-type: none"> In response to a question from Mr Maticka, Mr Sarawat advised that there were currently 19 staff working in the Energy Markets division (including RCP Support). 	
	<ul style="list-style-type: none"> Mrs Papps asked about the line connecting the Executive Officer and the ERA's Chief Executive Officer (CEO) in the corporate structure diagram on page 59, noting that this line was not included in the diagram on page 52. Mr Sarawat explained that the Executive Officer was hired by the CEO and was an employee of the ERA. The Chair noted that he did not report to the CEO and considered the line should not be included in the diagram. 	

Item	Subject	Action
	<p>In response to a question from Mr Huxtable, the Chair clarified that his performance agreement was with the Panel, and the performance agreements of RCP Support staff were with him.</p> <ul style="list-style-type: none"> In response to an invitation from the Chair, MAC members and observers did not identify any issues with the arrangements that they wished to raise with the Panel or the governing body of the ERA. 	
	<p>Action: The ERA to update its website to correct any discrepancies in the diagrams indicating the reporting arrangements between the Executive Officer, RCP Support and the ERA.</p>	ERA
10	<p>AEMO Allowable Revenue (AR5) Process</p> <p>Ms O'Connor noted that the ERA was reviewing AEMO's AR5 proposal and had requested some additional data, which AEMO was providing. The ERA intended to publish a draft decision either late in week ending 3 May 2019 or early the following week, for a four-week consultation period. The final report was due on 14 June 2019.</p> <p>Ms O'Connor thanked stakeholders who had provided submissions on the Issues Paper published by the ERA.</p>	
11	<p>General Business</p> <p>No general business was discussed.</p>	

The meeting closed at 11:05 AM.

Agenda Item 4: MAC Action Items

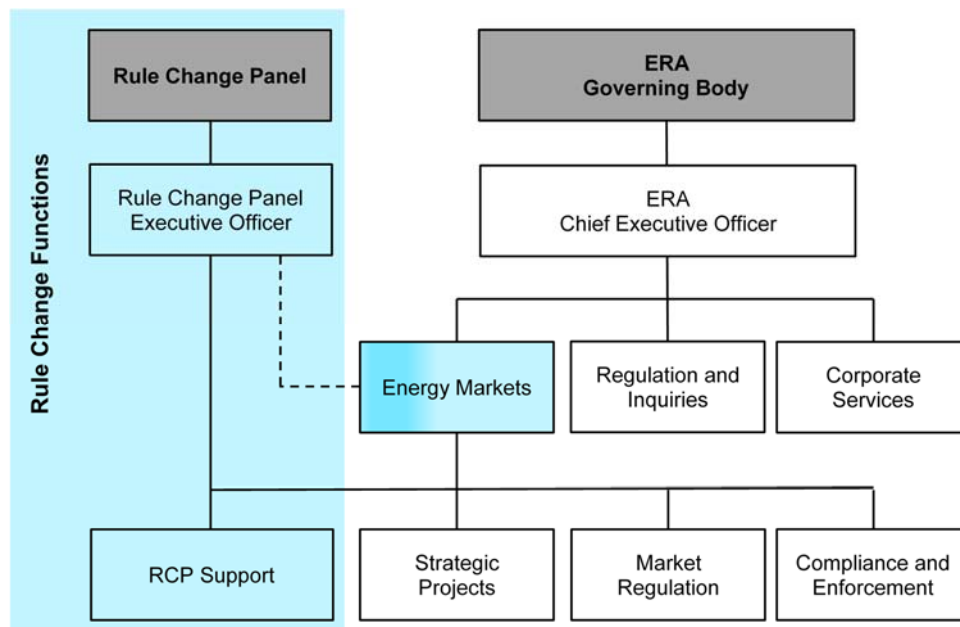
Meeting 2019_06_11

Shaded	Shaded action items are actions that have been completed since the last MAC meeting.
Unshaded	Unshaded action items are still being progressed.
Missing	Action items missing in sequence have been completed from previous meetings and subsequently removed from log.

Item	Action	Responsibility	Meeting Arising	Status
19/2017	The PUO to consult with AEMO and RCP Support on how to address the concerns raised by MAC members about the 2017/03 Amending Rules and develop a proposal for consideration at the next MAC meeting.	PUO/ AEMO/ RCP Support	2017_08_16	Closed This issue is to be tracked through the MAC Market Rules Issues List.
33/2017	The PUO to review the current list of Protected Provisions in the Market Rules to determine if any of the provisions no longer need to be Protected Provisions.	PUO	2017_08_16	Closed This issue is to be tracked through the MAC Market Rules Issues List.

Item	Action	Responsibility	Meeting Arising	Status
2/2019	AEMO and RCP Support to clarify the assumptions behind the IT cost estimates provided to RCP Support in 2018 and to the MAC on 5 February 2019 to support the recalculation of TES after the current 15 Business Day deadline; and to report back on the outcomes to the MAC.	RCP Support/ AEMO	2019_02_05	Closed AEMO provided a verbal update at the MAC meeting on 30 April 2019 (see minutes from the meeting for details).
3/2019	RCP Support to amend the minutes of the 5 February 2019 meeting to reflect the agreed changes and publish them on the Rule Change Panel's website as final.	RCP Support	2019_04_30	Closed The minutes were posted to the Rule Change Panel's website on 7 May 2019.
4/2019	RCP Support to schedule a discussion of MAC Market Rules Issues List issue 52 (multiple generators on a single line forming the largest single contingency in the SWIS); and develop a presentation with AEMO to guide that discussion.	RCP Support/ AEMO	2019_04_30	Closed AEMO will make a presentation on this issue under Agenda Item 4(a).
5/2019	RCP Support to include the conflict between the current and proposed Relevant Level Methodologies and the early and conditional certification of new Intermittent Generators in the MAC Market Rules Issues List.	RCP Support	2019_04_30	Closed This issue has been included on the list as Issue 55 (see Agenda Item 5).
6/2019	The ERA to provide an update to the MAC regarding the expected costs for its proposed changes to the Relevant Level Methodology.	ERA	2019_04_30	Closed The ERA will discuss this matter under Agenda Item 9.

Item	Action	Responsibility	Meeting Arising	Status
7/2019	The ERA to give a presentation to the MAC demonstrating the sensitivity of the proposed Relevant Level Methodology in the WEM to the entry and exit of Scheduled Generators.	ERA	2019_04_30	Closed The ERA will discuss this matter under Agenda Item 9.
8/2019	The ERA to update its website to correct any discrepancies in the diagrams indicating the reporting arrangements between the Executive Officer, RCP Support and the ERA.	ERA	2019_04_30	Closed The ERA website shows several versions of the organisation chart for the ERA and the Rule Change Panel. The correct version of the organisation chart is shown below. The ERA will correct the documents on its website to reflect this structure and will ensure that this structure is used in the future.



Agenda Item 5: MAC Market Rules Issues List Update

Meeting 2019_06_11

The latest version of the Market Advisory Committee (**MAC**) Market Rules Issues List (**Issues List**) is available in Attachment 1 of this paper.

The MAC maintains the Issues List to track and progress issues that have been identified by Wholesale Electricity Market (**WEM**) stakeholders. A stakeholder may raise a new issue for discussion by the MAC at any time by emailing a request to the MAC Chair.

Updates to the Issues List are indicated in red font, while issues that have been closed since the last publication are shaded in grey.

Recommendation:

RCP Support recommends that the MAC:

- note the updates to the Issues List;
- indicate whether there are any new issues to be raised; and
- discuss the preliminary urgency rating for issue 55 (conflict between Relevant Level Methodology and the early and conditional certification of Reserve Capacity).

In addition:

- Ten issues listed in Table 4 (Issues on Hold) are either 'on hold pending outcomes of the WEM Reform Program' or are 'to be reopened following the WEM Reform Program' – see issues 7, 10, 11, 12, 18, 19, 28, 42, 53 and 54. However, on 20 May 2019, the Minister for Energy announced a new Energy Transformation Strategy that will replace the WEM Reform Program.¹ Given the Government's new reform program, the MAC is asked to consider whether the statuses for the ten issues indicated above remain appropriate.
- The MAC is asked to consider whether issue 54 should be merged into issue 27.

¹ Members of the Energy Transformation Implementation Unit (ETIU) that is tasked with delivering the Energy Transformation Strategy will provide an update on the program to deliver the strategy at the MAC meeting on 11 June 2019 – see Agenda Item 6.

Agenda Item 5 – Attachment 1 – MAC Market Rules Issues List

11 June 2019

Table 1 – Potential Rule Change Proposals

Id	Submitter/Date	Issue	Urgency and Status
31	Synergy November 2018	<p>LFAS Report</p> <p>Under clauses 7A.2.9(b) and 7A.2.9(c) of the Market Rules, Synergy is obligated to compile and send the LFAS weekly report to AEMO based on the LFAS data for each Trading Interval supplied to Synergy by System Management. Given that System Management is now part of AEMO, it seems reasonable to remove this obligation on Synergy to reduce administrative burden. This rule change supports Wholesale Market Objective (a).</p>	<p>Panel rating: Low, but OK to progress using the Fast Track Rule Change Process</p> <p>MAC ratings:</p> <p>Low: Alinta, Bluewaters</p> <p>Medium: Geoff Gaston, AEMO</p> <p>High: Peter Huxtable</p> <p>Status:</p> <p>This issue has not been progressed.</p>
45	AEMO May 2018	<p>Transfer of responsibility for setting document retention requirements</p> <p>AEMO suggested that responsibility for setting document retention requirements (clauses 10.1.1 and 10.1.2 of the Market Rules) should move from AEMO to the ERA. AEMO considers that it is not the best entity to hold this responsibility as it no longer maintains the broader market development and compliance functions of the IMO.</p>	<p>Panel rating: Low</p> <p>MAC ratings: Low</p> <p>Status:</p> <p>Waiting on the ERA to provide its position on the proposal, but this is a low priority issue for the ERA.</p>
46	AEMO May 2018	<p>Transfer of responsibility for setting confidentiality statuses</p> <p>AEMO suggested that responsibility for setting confidentiality statuses (clauses 10.2.1 and 10.2.3 of the Market Rules) should move from AEMO to the ERA. AEMO considers that it is not the best entity to hold</p>	<p>Panel rating: Low</p> <p>MAC ratings: Low</p> <p>Status:</p>

Table 1 – Potential Rule Change Proposals

Id	Submitter/Date	Issue	Urgency and Status
		this responsibility as it no longer maintains the broader market development and compliance functions of the IMO.	Waiting on the ERA to provide its position on the proposal, but this is a low priority issue for the ERA.
47	AEMO September 2018	<p>Market Procedure for conducting the Long Term PASA (clause 4.5.14)</p> <p>The scope of this procedure currently includes describing the process that the ERA must follow in conducting the five-yearly review of the Planning Criterion and demand forecasting process.</p> <p>AEMO considers that its Market Procedure should not cover the ERA’s review, and the ERA should be able to independently scope the review. As such, AEMO recommends removing this requirement from the head of power in clause 4.5.14 of the Market Rules.</p>	<p>Panel rating: Low</p> <p>MAC ratings: Low</p> <p>Status: This issue has not been progressed.</p>
53	Alinta February 2019	<p>TES Recalculation</p> <p>Alinta is seeking a rule change to allow the recalculation of TES after the current 15 Business Day deadline.</p>	<p>Panel rating: <u>Low</u></p> <p>MAC ratings: <u>Low</u></p> <p>Status: This issue has not been progressed.</p>
<u>55</u>	<u>MAC</u> <u>April 2019</u>	<u>There is a conflict between the current and proposed Relevant Level Methodologies and the early and conditional certification of new Intermittent Generators, because the methodologies depend on information that is not available before the normal certification time for a Reserve Capacity Cycle.</u>	<p>Panel rating: <u>TBD</u></p> <p>MAC ratings: <u>TBD</u></p> <p>Status: <u>This issue has not been progressed.</u></p>

Notes:

- The Potential Rule Change Proposals are well-defined issues that could be addressed through development of a Rule Change Proposal.

- If the MAC decides to add an issue to the Potential Rule Change Proposals list, then RCP Support will seek a preliminary urgency rating from MAC members/observers and from the Rule Change Panel (**Panel**) and will include this information in the list.
- Potential Rule Change Proposals will be closed after a Pre-Rule Change Proposal is presented to the MAC or a Rule Change Proposal is submitted to the Panel.

Table 2 – Broader Issues

Id	Submitter/Date	Issue	Urgency and Status
1	Shane Cremin November 2017	IRCR calculations and capacity allocation There is a need to look at how IRCR and the annual capacity requirement are calculated (i.e. not just the peak intervals in summer) along with recognising behind-the-meter solar plus storage. The incentive should be for retailers (or third-party providers) to reduce their dependence on grid supply during peak intervals, which will also better reflect the requirement for conventional 'reserve capacity' and reduce the cost per kWh to consumers of that conventional 'reserve capacity'.	To be considered in the preliminary review of the Reserve Capacity Mechanism.
2	Shane Cremin November 2017	Allocation of market costs – who bears Market Fees and who pays for grid support services with less grid generation and consumption?	To be considered in the preliminary reviews of behind-the-meter issues and the basis for allocation of Market Fees.
3	Shane Cremin November 2017	Penalties for outages.	To be considered in the preliminary review of the Reserve Capacity Mechanism.
4	Shane Cremin November 2017	Incentives for maintaining appropriate generation mix.	To be considered in the preliminary review of the Reserve Capacity Mechanism.
9	Community Electricity November 2017	Improvement of AEMO forecasts of System Load; real-time and day-ahead	To be considered in the preliminary review of forecast quality.

Table 2 – Broader Issues

Id	Submitter/Date	Issue	Urgency and Status
16	Bluewaters November 2017	<p>Behind the Meter (BTM) generation is treated as reduction in electricity demand rather than actual generation. Hence, the BTM generators are not paying their fair share of the network costs, Market Fees and ancillary services charges.</p> <p>Therefore, the non-BTM Market Participants are subsidizing the BTM generation in the WEM. Subsidy does not promote efficient economic outcome.</p> <p>Rapid growth of BTM generation will only exacerbate this inefficiency if not promptly addressed.</p> <p>Bluewaters recommends changes to the Market Rules to require BTM generators to pay their fair share of the network costs, Market Fees and ancillary services charges.</p> <p>This is an example of a regulatory arrangement becoming obsolete due to the emergence of new technologies. Regulatory design needs to keep up with changes in the industry landscape (including technological change) to ensure that the WEM continues to meet its objectives.</p> <p>If this BTM issue is not promptly addressed, there will be distortion in investment signals, which will lead to an inappropriate generation facility mix in the WEM, hence compromising power system security and in turn not promoting the Wholesale Market Objectives.</p>	To be considered in the preliminary reviews of behind-the-meter issues and the basis for allocation of Market Fees.
23	Bluewaters November 2017	<p>Allocation of Market Fees on a 50/50 basis between generators and retailers may be overly simplistic and not consider the impacts on economic efficiency.</p> <p>In particular, the costs associated with an electricity market reform program should be recovered from entities based on the benefit they</p>	To be considered in the preliminary review of the basis for allocation of Market Fees.

Table 2 – Broader Issues

Id	Submitter/Date	Issue	Urgency and Status
		<p>receive from the reform. This is expected to increase the visibility of (and therefore incentivise) prudence and accountability when it comes to deciding the need and scope of the reform.</p> <p>Recommendations: to review the Market Fees structure including the cost recovery mechanism for a reform program.</p> <p>The cost saving from improved economic efficiency can be passed on to the end consumers, hence promoting the Wholesale Market Objectives.</p>	
30	Synergy November 2017	<p>Reserve Capacity Mechanism</p> <p>Synergy would like to propose a review of Market Rules related to reserve capacity requirements and reserve capacity capability criteria to ensure alignment and consistency in determination of certain criteria. For instance:</p> <ul style="list-style-type: none"> • assessment of reserve capacity requirement criteria, reserve capacity capability and reserve capacity obligations; • IRCR assessment; • Relevant Demand determination; • determination of NTDL status; • Relevant Level determination; and • assessment of thermal generation capacity. <p>The review will support Wholesale Market Objectives (a) and (d).</p>	To be considered in the preliminary review of the Reserve Capacity Mechanism.

Table 2 – Broader Issues

Id	Submitter/Date	Issue	Urgency and Status
35	ERM Power November 2017	<p>BTM generation and apportionment of Market Fees, ancillary services, etc.</p> <p>The amount of solar PV generation on the system is increasing every year, to the point where solar PV generation is the single biggest unit of generation on the SWIS. This category of generation has a significant impact on the system and we have seen this in terms of the daytime trough that is observed on the SWIS when the sun is shining. The issue is that generators that are on are moving around to meet the needs of this generation facility but this generation facility, which could impact system stability, does not pay its fair share of the costs of maintaining the system in a stable manner. That is, they are not the generators that receive its fair apportionment of Market Fees and pay any ancillary service costs but yet they have absolute freedom to generate into the SWIS when the fuel source is available. There needs to be equity in this equation.</p>	<p>To be considered in the preliminary reviews of behind-the-meter issues and the basis for allocation of Market Fees.</p> <p><u>The MAC recognised that the Minister has commenced work on BTM issues and flagged that issue 35 should be considered as part of the Minister's work.</u></p>
39	Alinta Energy November 2017	<p>Commissioning Test Process</p> <p>The commissioning process within the Market Rules and PSOP works well for known events (i.e. the advance timings of tests). However, the Market Rules and PSOP do not work for close to real time events. There is limited flexibility in the Market Rules and PSOP to deal with the practical and operational realities of commissioning facilities.</p> <p>The Market Rules and PSOP require System Management to approve a Commissioning Test Plan or a revised Commissioning Test Plan by 8:00 AM on the Scheduling Day on which the Commissioning Test Plan would apply.</p>	<p>To be considered in the preliminary review of the Commissioning Tests.</p>

Table 2 – Broader Issues

Id	Submitter/Date	Issue	Urgency and Status
		<p>If a Market Participant cannot conform to its most recently approved Commissioning Test Plan, the Market Participant must notify System Management; and either:</p> <ul style="list-style-type: none"> • withdraw the Commissioning Test Plan; or • if the conditions relate to the ability of the generating Facility to conform to a Commissioning Test Schedule, provide a revised Commissioning Test Plan to System Management as soon as practicable before 8:00 AM on the Scheduling Day prior to the commencement of the Trading Day to which the revised Commissioning Test Plan relates. <p>Specific Issues:</p> <p>This restriction to prior to 8:00 AM on the Scheduling Day means that managing changes to the day of the plan are difficult. Sometimes a participant is unaware at that time that it may not be able to conform to a plan. Amendments to Commissioning Tests and schedules need to be able to be dealt with closer to real time.</p> <p>Examples for improvements are:</p> <ul style="list-style-type: none"> • allowing participants to manage delays to the start of an approved plan; and • allowing participants to repeat tests and push the remainder of the Commissioning Test Plan out. <p>Greater certainty is needed for on the day changes (i.e. there is uncertainty as to what movements/timing changes acceptable within the “Test Window” i.e. on the day).</p>	

Wholesale Market Objective Assessment:

A review of the Commissioning Test process, with a view to allowing greater flexibility to allow for the technical realities of commissioning, will better achieve:

- Wholesale Market Objective (a):
 - Allowing generators greater flexibility in undertaking commissioning activities will allow the required tests to be conducted in a more efficient and timely manner, which should result in the earlier availability of approved generating facilities. This contributes to the efficient, safe and reliable production of energy in the SWIS.
 - Productive efficiency requires that demand be served by the least-cost sources of supply, and that there be incentives for producers to achieve least-cost supply through a better management of cost drivers. Allowing for a more efficient management of commissioning processes, timeframes and costs in turn promotes the economically efficient production and supply of electricity.
- Wholesale Market Objective (b): improvements to the efficiency of the Commissioning Test process may assist in the facilitation of efficient entry of new competitors.
- Wholesale Market Objective (d):
 - Balancing appropriate flexibility for generators with appropriate oversight and control for System Management should ensure that the complex task of commissioning is not subject to unnecessary red tape, adding to the cost of projects. This contributes to the achievement of Wholesale Market Objective (d) relating to the long-term cost of electricity supply.

Table 2 – Broader Issues			
Id	Submitter/Date	Issue	Urgency and Status
		<ul style="list-style-type: none"> ○ Impacts on economic efficiency and efficient entry of new competitors (as outlined above) will potentially lead to the minimisation of the long-term cost of electricity supplied. 	

Notes:

- Some issues require further discussion/review before specific Rule Change Proposals can be developed. For these issues, the MAC will:
 - group the issues together where appropriate;
 - determine the order of priority for the grouped Broader Issues;
 - conduct preliminary reviews to scope out the Broader Issues; and
 - refer the Broader Issues to the appropriate body for consideration/development.
- RCP Support will aim to schedule preliminary reviews at the rate of one per MAC meeting, unless competing priorities prevent this.
- Broader Issues will be closed (or moved onto another sub-list) following the completion of the relevant preliminary review and any agreed follow-up discussions on the issue.
- The current list of preliminary reviews is shown in Table 3.

Table 3 – Preliminary Reviews

Review	Status
(1) Review of roles in the market	<p>Issues: 11 and 12.</p> <p>Status: Review deferred until Issues 11 and 12 are reopened following completion of the WEM Reform Program.</p>
(2) Behind-the-meter issues	<p>Issues: 2, 16, 35.</p> <p>Status: Preliminary discussion is not yet scheduled.</p>
(3) Forecast quality	<p>Issues: 9.</p> <p>Status: Preliminary discussion is not yet scheduled.</p>
(4) Commissioning Tests	<p>Issues: 39.</p> <p>Status: Preliminary discussion is not yet scheduled. However, on 22 May 2018 AEMO held a workshop on Commissioning Test issues in connection with its proposed changes to the Power System Operation Procedure: Commissioning and Testing.</p>
(5) The basis of allocation of Market Fees	<p>Issues: 2, 16, 23 and 35.</p> <p>Status: Preliminary discussion is not yet scheduled.</p>
(6) The Reserve Capacity Mechanism (excluding the pricing mechanism)	<p>Issues: 1, 3, 4, and 30.</p> <p>Status: Preliminary discussion is not yet scheduled.</p>

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
5	Community Electricity November 2017	Improved definition of SRMC.	<u>Closed.</u> <u>The ERA published a “Guideline to inform Balancing Market offers” on 22 February 2019. On 30 April 2019, the MAC agreed that it did not need to undertake further work on issues 5 in the context of developing Rule Change Proposals, so Issue 5 should be closed.</u>
6	Community Electricity November 2017	Improved definition of Market Power.	<u>Closed.</u> <u>The ERA published a “Guideline to inform Balancing Market offers” on 22 February 2019. On 30 April 2019, the MAC agreed that it did not need to undertake further work on issues 6 in the context of developing Rule Change Proposals, so Issue 6 should be closed.</u>
7	Community Electricity November 2017	Improved definition of the quantity of LFAS (a) required and (b) dispatched.	On hold pending the outcome of the WEM Reform Program , with potential input from work on RC_2017_02: Implementation of 30-Minute Balancing Gate Closure.
10	AEMO November 2017	Review of participant and facility classes to address current and looming issues, such as: <ul style="list-style-type: none"> • incorporation of storage facilities; • distinction between non-scheduled and semi-scheduled generating units; 	On hold pending the outcome of the WEM Reform Program . Treatment of storage facilities was considered under the preliminary review of the treatment of storage facilities in the market.

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<ul style="list-style-type: none"> reconsideration of potential for Dispatchable Loads in the future (which were proposed for removal in RC_2014_06); whether to retain Interruptible Loads or to move to an aggregated facility approach (like Demand Side Programmes); and whether to retain Intermittent Loads as a registration construct or to convert to a settlement construct. <p>Would support new entry, competition and market efficiency; particularly supporting the achievement of Wholesale Market Objectives (a) and (b).</p>	
11	AEMO November 2017	<p>Whole-of-system planning oversight:</p> <p>As explained in AEMO’s submission to the ERA’s review of the WEM, AEMO considers the necessity of the production of an annual, independent Integrated Grid Plan to identify emerging issues and opportunities for investment at different locations in the network to support power system security and reliability. This role would support AEMO’s responsibility for the maintenance of power system security and will be increasingly important as network congestion increases and the characteristics of the power system evolve in the course of transition to a predominantly non-synchronous future grid with distributed energy resources, highlighting new requirements (e.g. planning for credible contingency events, inertia, and fast frequency response).</p> <p>This function would support the achievement of power system security and reliability, in line with Wholesale Market Objective (a).</p>	<p>This issue was initially flagged for consideration as part of the preliminary review of roles in the market.</p> <p>However, the PUO has since advised that the issue will be covered as part of the WEM Reform Program, so the issue has been put on hold pending completion of the WEM Reform Program.</p>
12	AEMO	Review of institutional responsibilities in the Market Rules.	Potential changes to responsibilities for setting document retention requirements and

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
	November 2017	Following the major changes to institutional arrangements made by the Electricity Market Review, a secondary review is required to ensure that tasks remain with the right organisations, e.g. responsibility for setting confidentiality status (clause 10.2.1), document retention (clause 10.1.1), updating the contents of the market surveillance data catalogue (clause 2.16.2), content of the market procedure under clause 4.5.14, order of precedence of market documents (clause 1.5.2). This will promote efficiency in market administration, supporting Wholesale Market Objectives (a) and (d).	confidentiality statuses have been listed as Potential Rule Change Proposals (issues 45 and 46). Potential changes to clause 4.5.14 have also been listed as a Potential Rule Change Proposal (issue 47). The PUO has advised that the remaining issues will be covered as part of the WEM Reform Program , so the remaining issues have been put on hold pending completion of the WEM Reform Program .
14/36	Bluewaters and ERM Power November 2017	Capacity Refund Arrangements: The current capacity refund arrangement is overly punitive as Market Participants face excessive capacity refund exposure. This refund exposure is well more than what is necessary to incentivise the Market Participants to meet their obligations for making capacity available. Practical impacts of such excessive refund exposure include: <ul style="list-style-type: none"> • compromising the business viability of some capacity providers - the resulting business interruption can compromise reliability and security of the power system in the SWIS; and • excessive insurance premiums and cost for meeting prudential support requirements. Bluewaters recommended imposing seasonal, monthly and/or daily caps on the capacity refund. Bluewaters considered that reviewing capacity refund arrangements and reducing the excessive refund	On 9 May 2018 the MAC agreed to place this issue on hold for 12 months (until June 2019) to allow time for historical data on dynamic refund rates to accumulate.

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<p>exposure is likely to promote the Wholesale Market Objectives by minimising:</p> <ul style="list-style-type: none"> unnecessary business interruption to capacity providers and in turn minimising disruption to supply availability; which is expected to promote power system reliability and security; and unnecessary excessive insurance premium and prudential support costs, the saving of which can be passed on to consumers. 	
15/34	Bluewaters and ERM Power November 2017	<p>An interpretation of clause 3.18.7 of the Market Rules is that System Management will not approve a Planned Outage for a generator unless it was available at the time the relevant Outage Plan was submitted. This gives rise to the following issues:</p> <ul style="list-style-type: none"> Operational inefficiency for the generators – it is not uncommon for minor problems to be discovered during a Planned Outage, and addressing these problems may require the Planned Outage period to be marginally extended (by submitting an additional Outage Plan). However, System Management has taken an interpretation of clause 3.18.7 that it is not allowed to approve the Planned Outage period extension because the relevant generator was not available at the time the extension application was submitted. To meet this rules requirement, the generator will need to bring the unit online, apply for a Planned Outage while the unit is online, and subsequently take the unit off-line again only to address the minor problems. Such operational inefficiency could have been avoided if System Management can approve such Planned Outage extension (as long as there is sufficient reserve margin available in the power system during the extended Planned Outage period). 	On hold pending a final decision on RC_2013_15: Outage Planning Phase 2 – Outage Process Refinements

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<ul style="list-style-type: none"> Driving perverse incentives in the WEM and compromising market efficiency – to get around the issue discussed above, generators are likely to overestimate their Planned Outage period requirements in their outage applications. This results in higher than necessary projected plant unavailability, which does not promote accurate price signals for guiding trading decisions. This misinformation is expected to lead to an inefficient outcome which in turn does not promote the Wholesale Market Objectives. <p>Bluewaters recommendation: clarify in the Market Rules so that System Management can approve a Planned Outage extension application.</p>	
17	Bluewaters November 2017	<p>Under clause 3.21.7 of the Market Rules, a Market Participant is not allowed to retrospectively log a Forced Outage after the 15-day deadline; even if the Market Participant is subsequently found to be in breach of the Market Rules for not logging the Forced Outage on time. This can result in under reporting of Forced Outages, and as a consequence, use of incorrect information used in WEM settlements.</p> <p>Bluewaters recommend a rule change to enable Market Participants to retrospectively log a Forced Outage after the 15-day deadline. If a Market Participant is found to be in breach of the Market Rules by not logging the Forced Outage by the deadline, it should be required to log the outage.</p> <p>Accurately reporting outages will enable the WEM to function as intended and will help meet the Wholesale Market Objectives.</p>	On hold pending a final decision on RC_2014_03: Administrative Improvements to the Outage Process.

Table 4 – Issues on Hold			
Id	Submitter/Date	Issue	Urgency and Status
18	Bluewaters November 2017	<p>The Spinning Reserve procurement process does not allow Market Participants to respond to the draft margin values determination by altering its Spinning Reserve offer.</p> <p>Bluewaters recommended amending the Market Rules to allow Market Participants to respond to the draft margin values determination by altering its Spinning Reserve offer.</p> <p>Allowing a Market Participant to respond to the draft margin values determination, can serve as a price signal to enable a price discovery process for Spinning Reserve capacity. This is expected to lead to a more efficient economic outcome and in turn promote the Wholesale Market Objectives.</p>	On hold pending the outcomes of the ancillary services review being undertaken as part of the WEM Reform Program .
19	Bluewaters November 2017	<p>The Spinning Reserve margin values evaluation process is deficient for the following reasons:</p> <ul style="list-style-type: none"> • shortcomings in the process for reviewing assumptions; • inability to shape load profile; • lack of transparency: <ul style="list-style-type: none"> (a) modelling was a “black box”; (b) confidential information limits stakeholders’ ability to query the results; and • lack to retrospective evaluation of spinning reserve margin values. <p>As a result, the margin values have been volatile, potentially inaccurate and not verifiable.</p>	<p>On hold pending the outcome of the WEM Reform Program.</p> <p>Also, AEMO and the ERA to consider whether any options exist to improve transparency of the current margin values process.</p>

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<p>Recommendation: conduct a review on the margin values evaluation process and propose rule changes to address any identified deficiencies.</p> <p>Addressing the deficiencies in the margin values evaluation process can promote the Wholesale Market Objectives by enhancing economic efficiency in the WEM. This can be achieved through:</p> <ul style="list-style-type: none"> • promoting transparency – better informed Market Participants would be able to better respond to Spinning Reserve requirement in the WEM; and • allowing a better-informed margin values determination process, which is likely to give a more accurately priced margin values to promote an efficient economic outcome. 	
22	Bluewaters November 2017	<p>Prudential arrangement design issue: clause 2.37.2 of the Market Rules enables AEMO to review and revise a Market Participant’s Credit Limit at any time. It is expected that AEMO will review and increase Credit Limit of a Market Participant if AEMO considers its credit exposure has increased (for example, due to an extended plant outage event).</p> <p>In response to the increase in its credit exposure, clause 2.40.1 of the Market Rules and section 5.2 of the Prudential Procedure allow the Market Participant to make a voluntary prepayment to reduce its Outstanding Amount to a level below its Trading Limit (87% of the Credit Limit).</p> <p>Under the current Market Rules and Prudential Procedure, AEMO can increase the Market Participant’s Credit Limit (hence increasing its</p>	On hold pending AEMO’s proposed review of its process for Credit Limit determination.

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<p>prudential support requirement) despite that a prepayment has already been paid (it is understood that this is AEMO's current practice).</p> <p>The prepayment would have already served as an effective means to reduce the Market Participant's credit exposure to an acceptable level. Increasing the Credit Limit in addition to this prepayment would be an unnecessary duplication of prudential requirement in the WEM.</p> <p>This unnecessary duplication is likely to give rise to higher-than-necessary prudential cost burden in the WEM; which creates economic inefficiency that is ultimately passed on the end consumers.</p> <p>Recommendation: amend the Market Rules and/or procedures to eliminate the duplication of prudential burden on Market Participants.</p> <p>The resulting saving from eliminating this unnecessary prudential burden can be passed on to end consumers. This promotes economic efficiency and therefore the Wholesale Market Objectives.</p>	
27	Kleenheat November 2017	Review what should constitute a Protected Provision of the Market Rules, to provide greater clarity over the role of the Minister for Energy.	<p>On hold pending the outcome of a PUO review of the current Protected Provisions in the Market Rules.</p> <p><u>The MAC is asked to consider whether issue 54 should be merged into issue 27.</u></p>
28	Kleenheat November 2017	Appropriate rule changes to allow for battery storage. Consultation to decide how the batteries will be treated and classified as generators or not, whether batteries can apply for Capacity Credits and the availability status when the batteries are charging.	On hold pending the outcomes of the WEM Reform Program .

Table 4 – Issues on Hold			
Id	Submitter/Date	Issue	Urgency and Status
33	ERM Power November 2017	<p>Logging of Forced Outages</p> <p>The market systems do not currently allow Forced Outages to be amended once entered. This can have the distortionary effect of participants not logging an Outage until it has absolute certainty that the Forced Outage is correct, hence participants could take up to 15 days to submit its Forced Outages.</p> <p>If a participant could cancel or amend its Forced Outage information, it will likely provide more accurate and transparent signals to the market of what capacity is really available to the system. This should also assist System Management in generation planning for the system.</p>	On hold pending a final decision on RC_2014_03: Administrative Improvements to the Outage Process.
41	IMO November 2017	<p>On 1 September 2017, the Electricity Review Board (Board) published its decision and its reasons for decision regarding the IMO's Application No. 1 of 2016 against Vinalco Energy Pty Ltd (Vinalco) (http://www.edawa.com.au/reviews/12016).</p> <p>Even though the Board found that Vinalco breached clause 7A.2.17 of the Market Rules during the relevant periods and ordered Vinalco to pay two nominal penalties, the Board was sympathetic to the argument that 'constrained-on' dispatch through the Balancing Market was not the most appropriate mechanism in Vinalco's circumstances.</p> <p>The IMO considers that further work is required to consider what changes are required to the Market Rules to mitigate the risk of a similar situation arising again, and what the next steps may be to progress those changes.</p>	<p>Closed.</p> <p><u>The ERA published a “Guideline to inform Balancing Market offers” on 22 February 2019. On 30 April 2019, the MAC agreed that it did not need to undertake further work on issues 41 in the context of developing Rule Change Proposals, so Issue 41 should be closed.</u></p>
42	ERA	Ancillary Services approvals process	On hold pending the outcome of the WEM Reform Program .

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
	November 2017	<p>Clause 3.11.6 of the Market Rules requires System Management to submit the Ancillary Services Requirements in a report to the ERA for audit and approval by 1 June each year, and System Management must publish the report by 1 July each year. The ERA conducted this process for the first time in 2016/17. In carrying out the process it became apparent that:</p> <ul style="list-style-type: none"> • there is no guidance in the rules on what the ERA’s audit should cover, or what factors the ERA should consider in making its determination on the requirements; • there are no documented Market Procedures setting out the methodology for System Management to determine the ancillary service requirements (the preferable approach would be for the methodologies to be documented in a Market Procedure, and for the ERA to audit whether System Management has followed the procedure); • the timeframe for the ERA’s audit and approval process (less than 1 month) limits the scope of what it can achieve in its audit; • the levels determined by System Management are a function of the Ancillary Service standards, but the standards themselves are not subject to approval in this process; and • the value of the audit and approval process is limited because System Management has discretion in real time to vary the levels from the set requirements. <p>The question is whether the market thinks this approvals process is necessary/will continue to be necessary (particularly in light of co-optimised energy and ancillary services). If so, then the issues</p>	

Table 4 – Issues on Hold			
Id	Submitter/Date	Issue	Urgency and Status
		above will need to be addressed, to reduce administrative inefficiencies and, if more rigour is added to the process, provide economic benefits (Wholesale Market Objectives (a) and (d)).	
49	MAC November 2018	Should the method used to calculate constrained off compensation be amended to better reflect the actual costs incurred by Market Generators?	The MAC agreed to include this issue in the Issues List and place it on hold until a decision is made on RC_2018_07, and if the Rule Change Proposal is approved, the changes have been in place for 12 months.
50	MAC November 2018	Should the Minimum STEM Price (currently -\$1,000/MWh) be increased to reduce the potential magnitude of constrained off compensation (e.g. by restoring the former practice of setting the Minimum STEM Price to the Maximum STEM Price multiplied by -1):	The MAC agreed to include this issue in the Issues List and place it on hold pending the outcomes of the ERA's next review of the methodology for setting the Energy Price Limits under clause 2.26.3 of the Market Rules.
51	MAC November 2018	There is a need to provide Market Customers with timely advance notice of their upcoming constraint payment liabilities.	The MAC agreed to place this issue on hold pending implementation of AEMO's proposed changes to the Outstanding Amount calculation in 2019.
52	MAC February 2019	How should potential future scenarios be managed where multiple generating units that are connected to the same line constitute the largest credible contingency, without imposing excessive constraint payment costs on Market Customers?	<u>RCP Support is to schedule a discussion of this issue and is to develop a presentation with AEMO to guide that discussion. This discussion is to be conducted under Agenda Item 10 at the MAC meeting on 11 June 2019.</u>

Table 4 – Issues on Hold			
Id	Submitter/Date	Issue	Urgency and Status
53	<u>MAC</u> <u>August 2018</u>	<p><u>MAC members have identified the following issues with the provisions relating to generator models that were Gazetted by the Minister on 30 June 2017 in the <i>Wholesale Electricity Market Rules Amending Rules 2017 (No. 3)</i>:</u></p> <ul style="list-style-type: none"> <u>The provisions allow for System Management, where it deems that the performance of a Generator does not conform to its models, to request updated models from Western Power and constrain the output of the Generator until these were provided, placing the Generator on a new type of Forced Outage and making it liable for Capacity Cost Refunds.</u> <u>Western Power is only required to comply with a request from System Management for updated models “as soon as reasonably practicable”, leaving a Market Generator potentially subject to a Forced Outage for an extended period with no control over the situation.</u> <u>The generator model information is assigned a confidentiality status of System Management Confidential, so that System Management is not permitted under the Market Rules to tell the Network Operator what model information it needs or explain the details of its concerns to the Market Generator.</u> 	<p><u>On hold pending the outcomes of the WEM Reform Program.</u></p>
54	<u>MAC</u> <u>August 2018</u>	<p><u>A review of the Protected Provisions in the Market Rules is required to identify any that they no longer need to be Protected Provisions. This is because shifting the rule change function to the Rule Change Panel has removed some of the potential conflicts of interest that led to the original classification of some Protected Provisions.</u></p>	<p><u>On hold pending the outcomes of the WEM Reform Program.</u></p> <p><u>The MAC is asked to consider whether issue 54 should be merged with issue 27.</u></p>

Notes:

- These are issues that the MAC will consider following some identified event. Issues on Hold will be reviewed by the MAC once the identified event has occurred, and then closed or moved to another sub-list.

MARKET ADVISORY COMMITTEE MEETING, 11 JUNE 2019

FOR NOTING

SUBJECT: UPDATE ON AEMO'S MARKET PROCEDURES

AGENDA ITEM: 7

1. PURPOSE

Provide a status update on the activities of the AEMO Procedure Change Working Group and AEMO Procedure Change Proposals.

2. AEMO PROCEDURE CHANGE WORKING GROUP (APCWG)

	Most recent meeting	Next meeting
Date	2 May 2019	TBA
Market Procedures for discussion	<ul style="list-style-type: none"> • PSOP: Dispatch Market Procedures resulting from RC_2014_06 (Removal of Resource Plans and Dispatchable Loads) • Balancing Market Forecast • Balancing Facility Requirements • Determining Loss Factors • Determination of DSM Dispatch Payment Tranches & Adjustments • Settlement • Certification of Reserve Capacity 	TBA, but may include: <ul style="list-style-type: none"> • PSOP: Dispatch (second round of changes to relocate settlement data and administration matters to a new PSOP) • PSOP: Outages (due to RC_2013_15) • Procedures related to Reserve Capacity pricing rule changes

3. AEMO PROCEDURE CHANGE PROPOSALS

The status of AEMO Procedure Change Proposals is described below, current as at 1 June 2019. Changes since the previous MAC meeting are in **red text**. A procedure change is removed from this report after its commencement has been reported or a decision has been taken not to proceed with a potential Procedure Change Proposal.

ID	Summary of changes	Status	Next steps	Date
AEPC_2018_01: Monitoring and Reporting Protocol	The new Monitoring and Reporting Protocol details how AEMO implements its obligations to support the ERA's monitoring of compliance with the Market Rules.	Approved by ERA 15 May 2019. Procedure has commenced.	-	22 May 2019
AEPC_2018_03: PSOP: Communications and Control Systems	The proposed amendments will update the procedure in line with current AEMO standards and add content previously placed in the IMS Market Procedure.	Further submissions closed 29 May 2019. No submissions received.	Prepare Procedure Change Report	Jul 2019
AEPC_2018_05: IMS Interface	The proposed amendments are consequential, arising from the amendment to the PSOP: Communications and Control Systems	Submissions closed 21 May 2018. One submission received.	Prepare Procedure Change Report	Jul 2019
AEPC_2018_06: PSOP: Commissioning Tests	The proposed amendments seek to revise the Procedure in line with current standards and ensure the Procedure complies with obligations.	Procedure Change Report published 31 May 2019. Procedure has commenced.	-	1 Jun 2019
AEPC_2019_01: PSOP: Short Term PASA	The proposed amendments seek to revise the Procedure in line with current standards and ensure the Procedure complies with obligations.	Procedure Change Report published 31 May 2019. Procedure has commenced.	-	1 Jun 2019
AEPC_2019_02: PSOP: Medium Term PASA	The proposed amendments seek to revise the Procedure in line with current standards and ensure the Procedure complies with obligations.	Procedure Change Report published 31 May 2019. Procedure has commenced.	-	1 Jun 2019

ID	Summary of changes	Status	Next steps	Date
AEPC_2019_03: Market Procedure: Capacity Credit Allocation Market Procedure: Individual Reserve Capacity Requirements Market Procedure: Prudential Requirements	Amendments arising from Rule Change RC_2017_06 (Reduction of prudential exposure in the Reserve Capacity Mechanism) are proposed.	Procedure Change Report published 29 Apr 2019. All procedures commenced except Market Procedure: Prudential Requirements.	Commencement of Market Procedure: Prudential Requirements	27 Jun 2019
AEPC_2019_04: PSOP: Dispatch	The proposed amendments include editorial clarifications and changes required by upcoming rule changes, audit items or operational matters.	Procedure Change Proposal published 8 May 2019.	Submissions close	6 Jun 2019
AEPC_2019_06: Market Procedure: Balancing Market Forecast Market Procedure: Balancing Facility Requirements Market Procedure: Determining Loss Factors Market Procedure: Determination of DSM Dispatch Payment Tranches & Adjustments Market Procedure: Settlement Market Procedure: Data and IT Interface Requirements Market Procedure: Certification of Reserve Capacity	The proposed amendments predominantly arise from Rule Change RC_2014_06 (Removal of Resource Plans and Dispatchable Loads)	Procedure Change Proposal published 8 May 2019.	Submissions close	6 Jun 2019
AEPC_2019_07: PSOP: Ancillary Services	The proposed amendments seek to revise the Procedure in line with current standards and ensure the Procedure complies with obligations.	Submissions closed 29 May 2019. Two submissions received.	Prepare Procedure Change Report	Jul 2019

ID	Summary of changes	Status	Next steps	Date
AEPC_2019_08: PSOP: Power System Security	The proposed amendments seek to revise the Procedure in line with current standards and ensure the Procedure complies with obligations.	Submissions closed 29 May 2019. No submissions received.	Prepare Procedure Change Report	Jul 2019

Agenda Item 8(a): Overview of Rule Change Proposals (as at 4 June 2019)

Meeting 2019_06_11

- Changes to the report provided at the previous MAC meeting are shown in **red font**.
- The next steps and the timing for the next steps are provided for Rule Change Proposals that are currently being actively progressed by the Rule Change Panel or the Minister.

Rule Change Proposals Commenced since the last MAC Meeting

Reference	Submitted	Proponent	Title	Commenced
RC_2017_06	17/07/2017	AEMO	Reduction of the prudential exposure in the Reserve Capacity Mechanism	01/06/2019

Approved Rule Change Proposals Awaiting Commencement

Reference	Submitted	Proponent	Title	Commencement
RC_2014_06	28/01/2015	IMO	Removal of Resource Plans and Dispatchable Loads	01/07/2019
RC_2014_07	22/12/2014	IMO	Omnibus Rule Change	01/07/2019 ¹
RC_2018_07	14/12/2018	PUO	Removal of constrained off compensation for Outages of network equipment	01/07/2019
RC_2018_06	26/11/2018	PUO	Full Runway Allocation of Spinning Reserve Costs	01/09/2019

¹ All Amending Rules for RC_2014_07 commenced on 11/01/2019, except the changes to clause 2.34.14, which will commence on 01/07/2019 immediately after commencement of RC_2014_06.

Rule Change Proposals Rejected since the last MAC Meeting

Reference	Submitted	Proponent	Title	Rejected
None				

Rule Change Proposals Awaiting Approval by the Minister

Reference	Submitted	Proponent	Title	Approval Due Date
RC_2015_01	03/03/2015	IMO	Removal of Market Operation Market Procedures	13/06/2019

Formally Submitted Rule Change Proposals

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
-----------	-----------	-----------	-------	---------	-----------	------

Fast Track Rule Change Proposals with Consultation Period Closed

None						
------	--	--	--	--	--	--

Fast Track Rule Change Proposals with Consultation Period Open

None						
------	--	--	--	--	--	--

Standard Rule Change Proposals with Second Submission Period Closed

RC_2018_05	27/09/2018	ERA	ERA access to market information and SRMC investigation process	Medium	Publication of Final Rule Change Report	28/06/2019
RC_2015_03	27/03/2015	IMO	Formalisation of the Process for Maintenance Applications	Low	Publication of Final Rule Change Report	01/07/2019

Standard Rule Change Proposals with Second Submission Period Open

RC_2013_15	24/12/2013	IMO	Outage Planning Phase 2 – Outage Process Refinements	Medium	Closure of second submission period	28/06/2019
------------	------------	-----	--	--------	-------------------------------------	------------

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
Standard Rule Change Proposals with First Submission Period Closed						
RC_2014_03	27/11/2014	IMO	Administrative Improvements to the Outage Process	High	Publication of call for further submissions	June/July 2019
RC_2014_05	02/12/2014	IMO	Reduced Frequency of the Review of the Energy Price Limits and the Maximum Reserve Capacity Price	Medium	Publication of Draft Rule Change Report	31/12/2019
RC_2014_09	13/03/2015	IMO	Managing Market Information	Low	Publication of Draft Rule Change Report	01/07/2019
RC_2017_02	04/04/2017	Perth Energy	Implementation of 30-Minute Balancing Gate Closure	Medium	Publication of Draft Rule Change Report ²	01/07/2019
RC_2018_03	01/03/2018	Collgar Wind Farm	Capacity Credit Allocation Methodology for Intermittent Generators	Medium	Publication of Draft Rule Change Report	31/12/2019
Standard Rule Change Proposals with the First Submission Period Open						
RC_2019_01	29/04/2019	Enel X	The Relevant Demand calculation	TBD	Publication of the Rule Change Proposal and Notice	TBD ³

Pre-Rule Change Proposals

Reference	Proponent	Description	Next Step	Submitted
TBD	ERA	Relevant Level Methodology	Submit Rule Change Pre-Proposal ⁴	TBD

² A MAC workshop will be scheduled for late June 2019.

³ Enel X has submitted RC_2019_01 on 29 April 2019. The Rule Change Panel has asked for some clarification from Enel X, and will determine whether to proceed with the proposal once Enel X provides the clarifications.

⁴ The ERA is further discussing the development of a Pre-Rule Change Proposal at the 11 June 2019 – see Agenda Item 9.

Reference	Proponent	Description	Next Step	Submitted
TBD	AEMO	Adjusting Non-STEM Settlements using latest available data	Submit Rule Change Proposal	TBD

Agenda Item 9

Relevant Level Method

Rule Change Proposal
Presentation to the Market
Advisory Committee

11 June 2019

DMS#



Economic Regulation Authority

WESTERN AUSTRALIA

Agenda

01

Current progress

Proposed changes to the market rules (Appendix 9)

02

Estimate of implementation costs

AEMO's preliminary estimate

03

Sensitivity analyses

Changes in generation mix and planned outages

04

Design options

Robustness of the method

Market rules vs market procedure

05

Expected submission to RCP

1. Current progress

- The ERA has developed the proposed changes in Appendix 9 of the market rules.
- AEMO provided feedback on the changes proposed.
- Guideline (for transparency):
 - Pseudocode
 - Example calculations
- The ERA Secretariat also met with the PUO to discuss the balance of implementation in the market rules vs in a market procedure.

2. Implementation costs

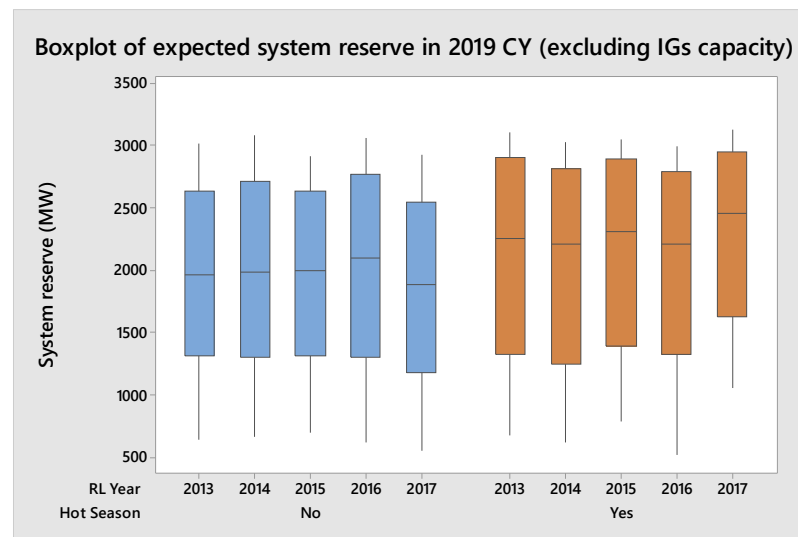
- AEMO's estimate of implementing changes proposed by Collgar wind farm was \$170,000.
 - Collgar proposed a change in the current method: use peak demand periods instead of peak LSG periods as the basis of calculation.
- AEMO's [AR5 submission](#): Cost estimate for BAU rule changes

Table 3: AEMO's internal project size criteria

<p>Small</p> <ul style="list-style-type: none"> • Little impact, complexity or risk. • Primarily involves one-two divisions. • Cost typically ~<\$150,000. 	<p>Medium</p> <ul style="list-style-type: none"> • Some impact, complexity or risk. • May involve three or more divisions. • Cost typically ~<\$500,000.
<p>Large</p> <ul style="list-style-type: none"> • May have impact on market(s) / participants, and or on AEMO's reputation. • Involves multiple stakeholder groups. • Material complexity (e.g. technology, resourcing, stakeholders etc.). • Contains significant risks (e.g. financial, technology, AEMO reputation, or impact to participants). • Cost typically ~>\$500,000. 	<p>Major</p> <ul style="list-style-type: none"> • Executive leadership-driven projects. • Significant direct impact on the market(s) / participants. • Significant impact on AEMO's reputation. • Significant complexity (e.g. across technology, resourcing, stakeholders etc.). • Contains significant or critical residual risks (e.g. financial, resourcing, technology, AEMO reputation, or impact to participants). • Cost typically ~>\$2.5 million.

3. Sensitivity analyses

- **Effect of planned outages**
 - Our preliminary analyses show that planned outages may affect capacity values.
 - System reserve (ex. IG capacity) is on average lower during the non-Hot Season period.



the horizontal lines in the middle of boxes show median. Box whiskers show the range of system reserve distribution. The bottom and top of the boxes respectively show 5th and 95th percentiles of the system reserve distribution.

System Reserve=Demand-Available Capacity

Should we address the effect of planned outages on the capacity values for IGs now?

- We can (simply) address the possible effect now but can result in more complexity.
 - Multiple COPT based on expected Available Capacity of scheduled generators (may be an overkill).
- **Can the outage planning method be improved?**
- **Is there room in the system such that planned outages can be run without a material effect on the LOLE? (part (a) of the planning criterion)**
- ERA will review the method for scheduling planned outages (MR 3.18.18).
- Better to address this possible effect after the ERA reviews the method for outage planning.

Changes in the generation mix

Changes in scheduled generation mix

- This effect is not material.
- We ran the sample model including and excluding Muja_G5 and G6.
- In very extreme cases (large entry and exit of scheduled generators) IG fleet capacity value changed 1 to 2 per cent.

Changes in IG mix (still in progress)

- Developed the sample model with and without Badgingarra wind farm. (a large IG)
- Approx. 2 per cent change to the capacity value of remaining IGs.
- Currently investigating the effect of entry/exit of multiple IGs.

Sensitivity analyses results will be provided as part of the rule change proposal.

4. Design options

Should the proposed method be designed to be robust to changes in the system?

For example, we can design the method to be suitable for the current technology mix only (biogas, solar, wind).

Simplicity is the advantage.

Or we can design it to remain robust: the entry of storage, or hybrids.

More details to be specified.

For a robust method:

- **Input data:** we need to make sure we use an estimate of the “Available Capacity” of resources.
- Currently: the observed (or estimated) sent out generation of Facilities.
- the proposed method can be used for storage (and scheduled generation).
- **But we may not need to use the proposed method for storage.**

Implementation in the market rules

- We have currently developed the model with sufficient details in the market rules (Appendix 9).
- Sufficient to replicate the method.
- This can be supported by a guideline.
- There is an option to move the method to a market procedure if stakeholders need any further explanations (and specify the purpose and basis of the method in the market rules).

5. Expected submission to RCP

The ERA expects to submit the rule change proposal in July 2019.

Thank you

Ask any questions



Economic Regulation Authority
WESTERN AUSTRALIA

Level 4, 469 Wellington Street, Perth WA 6000

Phone: 08 6557 7900

Email: info@erawa.com.au