

Meeting Agenda

Meeting Title: Market Advisory Committee

Date: Wednesday 9 May 2018

Time: 12:30 PM – 4:00 PM

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 from Previous Meeting	Chair	5 min
4	Actions Items	Chair	10 min
	(a) Presentation – SWIS Operational Issues Resulting from New Connections (Action Item 45/2018)	AEMO	20 min
5	Update on AEMO's Market Procedures	AEMO	10 min
6	Network and Market Reform Program (late paper)	PUO	60 min
7	Market Rules – Overview of Rule Change Proposals	RCP Support	15 min
8	Update on the MAC Issues List		
	(a) Roles in the Market	RCP Support	30 min
	(b) Treatment of Storage in the Wholesale Electricity Market	RCP Support	40 min
	(c) Update on Potential Rule Change Proposals	RCP Support	5 min
9	General Business	Chair	5 min

Next Meeting: 13 June 2018

Please note, this meeting will be recorded.

Minutes

Meeting Title:	Market Advisory Committee (MAC)
Date:	14 March 2018
Time:	12:35 PM – 2:45 PM
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	AEMO	
Dean Sharafi	System Management	
Sara O'Connor	Economic Regulation Authority (ERA) Observer	
Will Bargmann	Synergy	
Margaret Pырchla	Network Operator	
Jacinda Papps	Market Generators	
Shane Cremin	Market Generators	
Patrick Peake	Market Customers	
Simon Middleton	Market Customers	
Geoff Gaston	Market Customers	
Steve Gould	Market Customers	
Peter Huxtable	Contestable Customers	

Apologies	Class	Comment
Wendy Ng	Market Generators	
Andrew Stevens	Market Generators	

Also in attendance	From	Comment
Jenny Laidlaw	RCP Support	Minutes
Richard Cheng	RCP Support	Presenter

Ashwin Raj	Public Utilities Office (PUO)	Presenter, to 1.30 PM
Aditi Varma	PUO	Presenter
Fan Zhang	Collgar Wind Farm (Collgar)	Presenter, 1:30 – 2:10 PM
Kristian Myhre	Collgar	Presenter, 1:30 – 2:10 PM
Dean Frost	Western Power	Presenter
Douglas Thompson	Western Power	Observer, to 1:50 PM
Daniel Kurz	Bluewaters Power	Observer
Ignatius Chin	Bluewaters Power	Observer
Matthew Bowen	Jackson McDonald	Observer
Ben Skinner	Australian Energy Council	Observer
Noel Schubert		Observer
Sandra Ng Wing Lit	RCP Support	Observer, to 1:00 PM

Item	Subject	Action
1	<p>Welcome</p> <p>The Chair opened the meeting at 12:35 PM and welcomed members and observers to the 14 March 2018 MAC meeting.</p>	
2	<p>Meeting Apologies/Attendance</p> <p>The Chair noted the apologies and attendance as listed above.</p>	
3	<p>Minutes from Previous Meeting</p> <p>Draft minutes of the MAC meeting held on 14 February 2018 were circulated on 2 March 2018.</p> <p>The Chair noted that a revised draft showing tracked changes suggested by AEMO, the ERA and Synergy was distributed in the meeting papers.</p> <p>Mr Ignatius Chin noted that he and Mr Daniel Kurz were listed in the minutes as presenters but had attended the meeting as observers. The Chair agreed to change the minutes to reflect this.</p> <p>Subject to this change, the MAC accepted the minutes as a true record of the meeting.</p> <p>Action: RCP Support to amend the minutes of the 14 February 2018 meeting to reflect the agreed changes and publish on the Rule Change Panel (Panel) website as final.</p>	<p>RCP Support</p>

4	<p>Actions Arising</p> <p>The closed action items were taken as read.</p> <p>Action 19/2017: Mr Matthew Martin advised that the PUO was still working on the action item but had some further work to do before presenting a proposal to the MAC for consideration.</p> <p>Action 28/2017: The MAC agreed this action item was addressed at the 14 February 2018 meeting and could therefore be closed.</p> <p>Action 31/2017: The Chair noted that RCP Support was reviewing information recently provided by AEMO regarding options for changes to account for late logging of Forced Outages in settlement.</p> <p>Action 33/2017: On hold until early 2019.</p> <p>Action 34/2017: The MAC agreed this action item was addressed at the 14 February 2018 meeting and could therefore be closed.</p> <p>Action 36/2017: Mr Patrick Peake asked if RCP Support had published a schedule for the preliminary MAC discussions of the seven broader review topics identified by the MAC in its Market Rules Issues List. The Chair replied that RCP Support had determined an order for the discussions, but still needed to discuss next steps with the Panel. In response to a question from Mr Chin, the Chair advised that, due to time restrictions, the Panel discussion of the MAC Market Rules Issues List had been deferred from the 22 February 2018 meeting to the 22 March 2018 meeting.</p> <p>Action 41/2017: The Chair noted that Mr Matthew Fairclough presented on this matter at both the 14 February 2018 MAC meeting and the AEMO WA Electricity Consultative Forum held on 20 February 2018.</p> <p>Mr Dean Sharafi noted the presentations had confirmed that a Rule Change Proposal would be required to incorporate Bluewaters' suggested changes into AEMO's margin values submission to the ERA, but had also outlined what AEMO could do to make the process more efficient in the absence of a of a rule change. AEMO received one response from Synergy, which suggested that AEMO's proposal was in conflict with the Market Rules, but AEMO does not agree with this view.</p> <p>The Chair suggested it was up to Market Participants to contact AEMO regarding the next steps to be taken, if any. The MAC agreed with Mr Sharafi's suggestion to close the action item.</p> <p>Action 2/2018: Mr Sharafi advised that AEMO uses the emergency capacity of Scheduled Generators if necessary, and will continue to do so if needed in future. Ms Jenny Laidlaw clarified that the action item related to whether in future Market Generators will need to include their emergency capacity in their dispatch offers to ensure that AEMO's new automated dispatch system was aware of the output levels to which each Scheduled Generator was dispatched. Mr Sharafi agreed to consult with his colleagues in the National Electricity Market (NEM) and provide a further update to the MAC.</p> <p>Action 3/2018: to be addressed under agenda item 9.</p>	
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5	<p>Update on AEMO's Market Procedures</p> <p>Mr Sharafi noted the consultation period had closed for the Power System Operation Procedure (PSOP): Tolerance Ranges and the Monitoring and Reporting Protocol.</p> <p>Mr Sharafi advised that the next round of procedure changes would include changes to the PSOP: Communications and Control Systems and the IMS Interface Market Procedure.</p> <p>The MAC noted the update on AEMO's Market Procedures.</p>	
6	<p>Network and Market Reform Program Update</p> <p>Mr Martin, Mr Ashwin Raj and Ms Aditi Varma gave an update on the Minister's network and market reform program. The following points were discussed.</p> <ul style="list-style-type: none"> • Mr Raj noted that the PUO expected to email stakeholders the following day to advise that the submission deadline for the three papers that were out for consultation was extended to Thursday 29 March 2018. • Mrs Jacinda Papps asked for further detail on the comments made by Ms Varma at the PUO's 13 March 2018 industry forum about reviewing the market power mitigation arrangements for the WEM. Ms Varma replied that the PUO had not yet started this work in detail, but was considering, for example, whether the implementation of co-optimisation would require changes to the short run marginal cost (SRMC) definition to account for the opportunity cost of foregone energy sales revenue. <p>Mrs Papps noted that the Electricity Market Review (EMR) had not consulted on a report it published by the Brattle Group on market power mitigation. Mrs Papps asked if the PUO intended to use that report as a basis for its ongoing work, and if so, whether it intended to consult on the report's contents.</p> <p>Mr Martin replied that the PUO would consider any papers previously published but its views would not be limited by those reports.</p> <ul style="list-style-type: none"> • In response to a question from Mr Chin, Ms Varma clarified that while the ERA's recent draft Balancing Submission Guideline provided valid guidance on SRMC and market power for the current market, the proposed market reforms were likely to necessitate some changes to the definitions of these concepts, and the associated compliance and enforcement rules. • Mr Peake asked how the PUO intended to consider the question of transitional compensation. Ms Varma replied that the PUO's priority at this time was to ensure an option was available to provide transitional compensation in future, if required. The design of any such mechanism was yet to be determined, and would be subject to further consultation. • In response to a question from Mr Noel Schubert, Mr Martin confirmed the PUO's intention to publish the slides from the industry forum presentations on its website. 	

<ul style="list-style-type: none"> • Mr Martin Maticka noted that AEMO was still working with the PUO to confirm who would be leading which components of the reform program. AEMO is working to complete a full business case to submit for approval, and once completed, will provide further information and seek feedback on its proposed execution program. • Mr Chin asked why the EY assumptions paper included a scenario for a partially constrained network access model. Mr Raj and Ms Varma clarified that given the upcoming entry of generators under the Generator Interim Access (GIA) arrangements, the PUO considered a partially constrained network access model was the appropriate base case to use for the EY modelling. • In response to a question from Mr Shane Cremin, Mr Raj confirmed that the EY modelling did not assume any material investment in new transmission assets. There was some discussion about the rationale for, and validity of these conservative transmission investment assumptions. • Mr Sharafi suggested that once the framework was changed to allow generators to connect, then congestion in a part of the network will give the proper signal for either network augmentation or any other action to remove the congestion. The MAC accepted Mr Sharafi's offer to give a presentation on this topic at the next MAC meeting. <p>Action: AEMO to give a presentation at the next MAC meeting on a specific scenario that can occur as a result of generators connecting to a part of the network that gives rise to either increased ancillary services requirements or a signal for investment to remove a network constraint.</p> <ul style="list-style-type: none"> • Mr Simon Middleton asked whether the Minister's office staff were invited to the industry forum, and why no representative from the Minister's office attended the event. Mr Raj replied that he was fairly sure the Minister's office staff had been invited. Mr Middleton noted that the proposed market reforms would be difficult and require a great deal of effort from a broad group of people. Mr Middleton expressed disappointment that the Minister's office had not sent a representative to talk about the importance of the reforms and Government's commitment to the reform program, as this would have provided comfort to the industry that its efforts are warranted. • Dr Steve Gould noted that Mr Wayne Trumble had questioned the financial benefit of the proposed network access changes at the PUO's industry forum. Dr Gould asked what the Minister wanted from the reforms and considered that the reform program was following the momentum of the EMR, to some extent, without asking whether this was appropriate. Mr Martin replied that the PUO considered it had established the case for network reform previously, but intended to do some further work to re-establish that case and articulate the benefits of the proposed reforms. 	<p>AEMO</p>
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- Dr Gould commented that, while a primary objective of the EMR was to remove further financing burden from the Government, it seemed the financing burden is still being placed on Synergy in one way or another. Dr Gould reiterated Mr Trumble's suggestion that the purpose of the reforms was to assist Synergy to become the renewables supplier of last resort. Mr Martin replied that this was not a policy intention of the reforms.
- Mr Middleton asked about the funding arrangements for AEMO's preparatory work on the proposed reforms. Mr Maticka replied that AEMO's current work on the program was covered by funding already approved by the ERA, and involved only a small team doing pre-planning and business case development. Mr Martin added that the PUO intended to put the necessary rules in place to allow AEMO to prepare for and implement a new market dispatch engine, and to apply to the ERA for approval to carry out that work. The PUO planned to first determine what activities AEMO needed to do, then look at what changes were needed to the Market Rules, and then follow that through in an open and transparent process.
- Mr Middleton rejected the idea that security constrained dispatch was tied to the implementation of a constrained network access model. Mr Middleton considered that a security constrained dispatch framework should be operating in the WEM regardless of the network access framework, and expressed concern about the delay in implementing security constrained dispatch. There was some discussion about the implementation of the GIA framework, the interdependencies of security constrained dispatch and constrained network access, and the urgency of reforms to the WEM's dispatch mechanisms.
- Mr Martin thanked the parties who had provided comment on the draft rules for the abolition of the Independent Market Operator (**IMO**). No major issues were raised in submissions, and the PUO anticipated the IMO repeal regulations and rules would be Gazetted in the first week of April 2018.
- Dr Gould expressed surprise at the EY modelling assumption that there will be no utility-scale batteries in the WEM for the next 15 years. There was extensive discussion about the likely role of utility-scale batteries over that period, the potential impact of batteries on network congestion, the need to amend the Market Rules to support the participation of storage in the WEM, and the practical difficulties of incorporating utility-scale batteries into the modelling assumptions.
- Mr Martin noted that the PUO was undertaking a separate modelling exercise to consider the future generation mix for the WEM, which would consider some of the matters raised by MAC members about the role of storage. Ms Varma added that the PUO intended to consider how to account for storage and other new technologies in the Market Rules as part of the market reform program.

7(a)	<p>Overview of Rule Change Proposals</p> <p>The MAC noted the overview of Rule Change Proposals.</p> <p><u>Rule Change Proposals awaiting Ministerial approval</u></p> <p>The Chair noted that the Final Rule Change Reports for RC_2017_10 (Correction of Gazettal Errors) and RC_2017_05 (AEMO Role in Market Development) were both awaiting approval by the Minister. The Minister's decision was due on 19 March 2018 for RC_2017_10 and 21 March 2018 for RC_2017_05.</p> <p><u>RC_2017_06 (Reduction of the prudential exposure in the Reserve Capacity Mechanism)</u></p> <p>The Chair advised that RCP Support was working on a more detailed cost-benefit analysis for RC_2017_06 after receiving updated time and cost estimates from AEMO. RCP Support expected to publish a call for further submissions seeking continued support from Market Participants for RC_2017_06 on the basis of this cost-benefit analysis. RCP Support was also considering how the proposal could be modified to reduce costs.</p> <p>Mrs Papps asked which parts of RC_2017_06 RCP Support was thinking of modifying. The Chair replied that this had not yet been determined. Ms Laidlaw added that if any potential changes were identified they would be included as options for stakeholder consideration in the call for further submissions, along with their estimated costs and benefits.</p> <p>In response to a question from Mrs Papps and Mr Geoff Gaston, the Chair confirmed that AEMO's revised cost estimate had not been published as AEMO was still in negotiations with its IT providers and had asked that this information be kept confidential.</p> <p>Mrs Papps noted Alinta's strong support for retaining the proposed changes to the responsible party reference month used for Individual Reserve Capacity Requirement (IRCR) calculations (from n-3 to n). Ms Laidlaw noted it would be helpful if the submissions to the call for further submissions included further information on the more qualitative benefits of the proposal.</p> <p>Mr Maticka noted that when AEMO performed a more detailed technical analysis it found the implementation cost was going to be much greater than originally expected. AEMO still believed that RC_2017_06 should go forward to address the large prudential exposure in the market; and that the proposed changes would be the most effective way to address the problem. Mr Maticka suggested that Market Participants make a submission if they considered there was another, simpler solution that addressed the problem without increasing the prudential requirements; or if they wanted to provide any particular strong support to specific components of the proposal.</p> <p>Mrs Papps asked at what point additional changes to the proposed Amending Rules might invalidate the rule change process, given the Draft Rule Change Report was already published. Ms Laidlaw replied that changes large enough to warrant starting the rule change process again were not expected.</p>	
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	<p>The Chair reiterated the Panel's view that further consultation was necessary given the increased cost estimates provided by AEMO. Mr Maticka noted that AEMO would always take the position that the market should not be unnecessarily exposed, so if RC_2017_06 was rejected, then AEMO would look at another Rule Change Proposal to protect the market.</p> <p><u>RC_2014_06 and RC_2014_03 (Removal of Resource Plans and Dispatchable Loads)</u></p> <p>The Chair clarified that the next step for RC_2014_06 was publication of the Draft Rule Change Report, while the next step for RC_2014_03 (Administrative Improvements to the Outage Process) would be publication of a call for further submissions.</p> <p>In response to a question from Mr Maticka, the Chair confirmed there was no intention to change the Medium urgency rating of RC_2014_06.</p>	
<p>7(b)</p>	<p>RC_2018_03 - Capacity Credit Allocation Methodology for Intermittent Generators</p> <p>The Chair noted that Collgar submitted the Rule Change Proposal RC_2018_03 (Capacity Credit Allocation Methodology for Intermittent Generators) on 1 March 2018. Collgar elected to submit the proposal without using the pre-rule change process, and so the formal rule change process had already commenced.</p> <p>The Chair advised that the Panel decided to progress the proposal on the basis that due consideration should be given to whether the proposal will allow the Market Rules to better address the Wholesale Market Objectives. The first submission period was open until 20 April 2018.</p> <p>The Chair invited Mr Fan Zhang from Collgar to speak to the proposal. Mr Zhang introduced Mr Kristian Myhre (who helped to develop the proposal) and gave a brief overview of the proposed amendments, suggesting that the changes were fairly simple and straightforward, but will better address the Wholesale Market Objectives.</p> <p>The following points were discussed.</p> <ul style="list-style-type: none"> • Mr Middleton asked Mr Zhang to outline more clearly his concern with the existing Relevant Level Methodology. Mr Zhang clarified that, because the Load for Scheduled Generation (LSG) measure, which is used to select the peak intervals in which Intermittent Generator performance is assessed, excluded the output of Intermittent Generators; by definition it tended to remove from consideration those Trading Intervals where Intermittent Generators contribute the most. Mr Zhang's contention was that if an Intermittent Generator had a high output at the system peak it was unfair not to give the generator the benefit of its actual performance. • Mr Myhre considered that the current Relevant Level Methodology very controversial when it was first implemented, with views largely divided between Intermittent Generators and other stakeholders. The decision at the time had been to err on 	

	<p>the side of caution, as there was insufficient information available on the performance of Intermittent Generators, and system security was the main concern.</p> <p>Mr Myhre noted that the concept of capacity was based on peak demand from customers. Collgar's argument is that if Intermittent Generators are serving that peak demand, it should not really matter whether they do so at the same time as Scheduled Generators.</p> <ul style="list-style-type: none"> • Ms Laidlaw questioned the discussion of increasing photovoltaic (PV) penetration on page 3 of the proposal. Mr Myhre replied that one of the key drivers for the Relevant Level Methodology had been the desire to reward solar PV Facilities to a greater extent. Mr Myhre noted that with the increased penetration of PVs behind the meter, the typical peak demand time is moving to later in the day (e.g. from 2-3 PM to 5-6 PM). While this affected both peak demand and peak LSG, there was also growth in commercial solar farms that make an additional contribution to the shift of peak LSG Trading Intervals to later in the day. • Ms Laidlaw noted that the proposal did not discuss the original arguments for the use of LSG – that it rewarded geographical diversity of Intermittent Generators. Mr Myhre replied that industry was divided when the Relevant Level Methodology was developed, and there was no clear backing for the use of LSG. • Mr Myhre noted that Collgar's "back-of-the-envelope" analysis showed the proposed changes could lead to about a 25% increase in Capacity Credits for Intermittent Generators. Collgar believed this would be a reasonable first step in moving away from the current, conservative approach; although it was not a perfect solution; and Collgar was aware that the ERA will undertake a more thorough analysis of the methodology in the near future. • Mr Myhre advised that Collgar's analysis was based on historical data for the five largest wind farms. Mr Maticka noted that AEMO's preliminary analysis suggested the change would result in about a 6 percent increase in Capacity Credits for Intermittent Generators overall, with wind farms benefitting to a much greater extent, at the expense of PV Facilities. Mr Myhre replied that Collgar's argument was philosophical in nature. The numbers presented in the proposal were purely indicative of what level of change could be expected, and could be refined using data from AEMO as part of the rule change process. • Mr Peter Huxtable noted the proposed selection of peak Trading Intervals would not actually align with the selection of peak Trading Intervals for IRCCR calculation. Mr Myhre agreed and noted that Collgar considered proposing the use of the IRCCR Trading Intervals, but decided it would be too complicated a change. • Collgar had not checked with AEMO but considered the IT costs of the proposal would not be large, given that the only proposed change was to how the peak Trading Intervals were selected. 	
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	<p>Mr Myhre agreed that alignment with IRCR was something to consider.</p> <ul style="list-style-type: none"> • Mr Maticka asked why Collgar considered the proposal should be progressed before the ERA's upcoming review of the Relevant Level Methodology. Mr Myhre replied that Collgar considered the proposed changes would not have a big cost impact and could be assessed against the Wholesale Market Objectives without affecting the ERA review. • In response to a question from Mr Cremin, Ms Sara O'Connor clarified that the ERA's review would cover the whole of the Relevant Level Methodology (including the use of LSG), not just the determination of K and U values. There was some discussion about the overlap of the Rule Change Proposal and the ERA's review, and when the proposed changes might be implemented if they were assessed before or after that review. • Mr Myhre reiterated his view that opinions on the use of LSG were divided when the Relevant Level Methodology was first developed. Mr Cremin considered the LSG concept was the result of a consultant's thought bubble, and was never supported by the affected Market Generators. • Ms Laidlaw and Mr Cremin questioned the potential effects of constrained network access on the use of LSG, given the intention to certify capacity on an unconstrained basis but consider network constraints when assigning Capacity Credits. Mr Cremin suggested that using system demand instead of LSG would remove any potential conflicts. • There was some discussion about whether the proposed change to the Relevant Level Methodology would require Market Generators with new Facilities to obtain revised expert reports. • Dr Gould questioned whether the proposed changes could have an adverse effect on Market Generators with new PV Facilities. Mr Maticka noted AEMO's analysis suggested that some Intermittent Generators would benefit from the proposal while others would be disadvantaged. • In response to a question from Dr Gould, Mr Maticka advised that for the 2017 Reserve Capacity Cycle the proposed changes would have resulted in about 15 MW of extra certified capacity and a very slight reduction in the Reserve Capacity Price. • There was some discussion about the services required from Reserve Capacity providers, the definition of a Capacity Credit and how the Reserve Capacity Mechanism should deal with different technology types. • In response to a question from the Chair, Mr Maticka confirmed that AEMO had not yet had an opportunity to assess the impact of the proposed amendments on its IT systems. • MAC members and observers agreed the proposal should be assigned a Medium urgency rating, apart from Mr Middleton who preferred a High urgency rating. 	
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	<ul style="list-style-type: none"> Mrs Papps asked if there was any scope for the ERA to bring forward its report on the Relevant Level Methodology. Ms O'Connor did not consider this would be possible, but noted the ERA intended to start the review shortly after its public workshop in April 2018. 	
8(a)	<p>Update on the MAC Market Rules Issues List</p> <p>The Chair advised that a discussion of the MAC Market Rules Issues List that had been scheduled for the 22 February 2018 Panel meeting, but was deferred to the next meeting due to time restrictions.</p> <p>The Chair noted that the next agenda item was a preliminary discussion of the first of the seven broader review issues identified by the MAC.</p>	
8(b)	<p>MAC Issues List – Roles in the Market</p> <p>Mr Richard Cheng sought feedback from the MAC on the following questions in the context of the Market Rules:</p> <ul style="list-style-type: none"> Are the appropriate Market Participants or agencies undertaking the appropriate roles/responsibilities? Should the roles/responsibilities of any Market Participant or agency be expanded or reduced? Should any of the roles/responsibilities of any Market Participant or agency be shifted to another entity, and if so, to who? Are there any unallocated roles/responsibilities, and if so, what are the unallocated roles and who should they be allocated to? <p>The following points were discussed:</p> <ul style="list-style-type: none"> Ms O'Connor noted that the responses to the discussion paper for the ERA's last review of the WEM included numerous comments about roles, responsibilities and possible conflicts of interest. Ms O'Connor did not expect that the positions of stakeholders would have changed much since that time. Mr Chin noted that the ERA provided secretariat support to the Panel. Mr Chin questioned how the separation of duties was enforced and whether some sort of audit should occur to ensure there is a clear separation of duties within the ERA secretariat. <p>Ms Laidlaw and the Chair explained that the ERA Governing Body and Executive take no part in the review and approval of Panel work. Mr Chin expressed concern that conversation between the Panel and the ERA at a secretariat level may in some way influence the Panel's decisions.</p> <p>Ms O'Connor offered to provide the MAC with some documentation on the types of Rule Change Proposals that the ERA would be prepared to develop, and the practical ring fencing arrangements in place for RCP Support.</p> <p>The Chair asked Mr Chin if this information would help to address his concerns. Mr Chin replied that it would if there was a clear demonstration of how the arrangements work and that</p>	

	<p>they were effective. There was some discussion about how the effectiveness of the arrangements could be measured. Mr Middleton did not consider that a review of the ring fencing arrangements should be a high priority.</p> <p>Action: The ERA to prepare a document for the MAC describing the types of Rule Change Proposals that the ERA intends to develop, and the practical ring fencing arrangements for work undertaken by the ERA to support the Panel.</p> <ul style="list-style-type: none"> • Mr Martin noted that the PUO intended to consider roles and responsibilities for network and system planning functions as part of the Minister's reform program. In response to a question from Ms Margaret Pyrchla, Mr Martin confirmed that the contentious issues relating to power system security and reliability arising from the transfer of System Management to AEMO would be dealt with through the market reform program. • Mr Sharafi identified three important responsibilities that were currently unassigned: responsibility for development of the rule changes needed to support the participation of batteries in the WEM; responsibility for planning at the system level; and responsibility for maintaining the system security and reliability standards for the SWIS. Mr Martin advised that these responsibilities would be considered as part of the market reform program. • Mr Chin recalled previous discussions about the need for a market review function similar to that of the Australian Energy Market Commission, maybe with the ability to propose rule changes to implement review recommendations. Mr Chin also suggested the implementation of some sort of reliability panel to address reliability issues. • Mr Martin asked if there was scope to include the broader questions about agency roles in the ERA's annual review of the effectiveness of the WEM. Mr Martin noted that the issues were raised in the last review and perhaps the next review could provide recommendations for implementation. Mrs Papps and Mr Cremin raised concerns about how the ERA's recommendations would be implemented. • The Chair advised that RCP Support would request specific feedback on the four questions by email. Mr Peake recommended that the feedback be presented at the next MAC meeting, due to the urgency of some of the issues raised by Mr Sharafi. <p>Action: RCP Support to ask MAC members to email their specific feedback on the four questions raised by RCP Support regarding roles and responsibilities in the WEM; and present the results at the next MAC meeting for discussion.</p>	<p>ERA</p> <p>RCP Support</p>
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9 General Business**Western Power Presentation on Declared Sent Out Capacity (DSOC) – Action Item 3/2018**

Mr Dean Frost gave a presentation on how Western Power sets the DSOC for a generating unit and the role of temperature in its determination process. A copy of the presentation is available on the Panel's website. The following points were discussed.

- Mr Frost explained that the DSOC of a generating unit was based on an assessment of the installed generation capacity, accounting for any load at the site and any relevant Technical Rule requirements. DSOC has implications for market, system and network operations, and is used in calculating Loss Factors.
- Mr Frost noted that a generating unit is subject to excess network usage charges if it exceeds its DSOC. Additionally, in real-time there may be actual violations that need to be managed by bringing a unit back to its declared limit.
- Mr Peake noted that the Merredin Power Station could generate about 10% more than its DSOC under normal temperature conditions, but is not permitted to make this extra capacity available to the market. Dr Gould considered the use of a single DSOC that applied under all temperature conditions prevented the full utilisation of the generating units and the network. Dr Gould questioned whether the concept of DSOC could be changed to allow the maximum permitted output level to vary by season, month or even time of day.
- Mr Schubert considered that, from a network access viewpoint, DSOC should only be applied at times when it mattered to the network. At other times, when there was spare capacity on the network, network customers should not be penalised for exceeding their DSOC. There was some discussion about how a Market Generator would know when it was able to exceed its DSOC without penalty.
- Mr Sharafi agreed there was value in considering Dr Gould's suggestion, noting that Western Power already provided summer and winter ratings for some network components. Mr Sharafi considered that network limits may need to be more flexible in future. Mr Frost replied that Western Power intended to move in this direction.
- Mr Middleton asked if System Management had visibility of dynamic line ratings in the network. Mr Sharafi replied that System Management did not yet use dynamic line ratings, but agreed this is an option for the future.
- Mr Middleton asked whether the NEM Dispatch Engine used dynamic line limits in its constraint equations, and Mr Ben Skinner confirmed that this was the case.
- Mr Schubert suggested that Loads should also be able to exceed their Contract Maximum Demands without penalty when spare network capacity was available.

The meeting closed at 2:45 PM.

Agenda Item 4: MAC Action Items

Meeting 2018_05_09

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	August 2017	Open
28/2017	AEMO to investigate and report to the MAC on: <ul style="list-style-type: none"> (a) the timing and content of the information provided to Market Participants on dynamic refund rates under the Market Rules; (b) whether the required information is currently provided in accordance with the Market Rules, and, if not, when it is expected to be; and (c) any options to improve the content and/or timeliness of the information provided to Market Participants on dynamic refund rates. 	AEMO	November 2017	Closed

Item	Action	Responsibility	Meeting Arising	Status
31/2017	AEMO to investigate and report back to the MAC on the simplest and cheapest option for changes to ensure that the late logging of a Forced Outage by a Generator would result in the appropriate settlement adjustment outcomes (i.e. correct payment of capacity refunds and the recovery of any unwarranted constrained off compensation).	AEMO	November 2017	Open
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	November 2017	Open Held over to early 2019
34/2017	AEMO to investigate what simple options might exist to improve the accessibility and timeliness of the information provided to Market Participants on LFAS and Spinning Reserve costs.	AEMO	November 2017	Closed
41/2017	AEMO to investigate and report to the MAC on whether a rule change is needed to improve efficiency in the Spinning Reserve procurement process by allowing Market Generators to offer additional Spinning Reserve in response to the draft margin values determination	AEMO	December 2017	Closed
42/2018	AEMO to advise whether it might need to be able to dispatch the emergency capacity of a Scheduled Generator (i.e. any additional output that can be provided for short periods in emergency situations only) using its future automated dispatch engine.	AEMO	February 2018	Open
43/2018	Western Power to provide an overview to the MAC on how Western Power sets the Declared Sent Out Capacity (DSOC) for a generating unit and the role of temperature in its determination process.	Western Power	February 2018	Closed

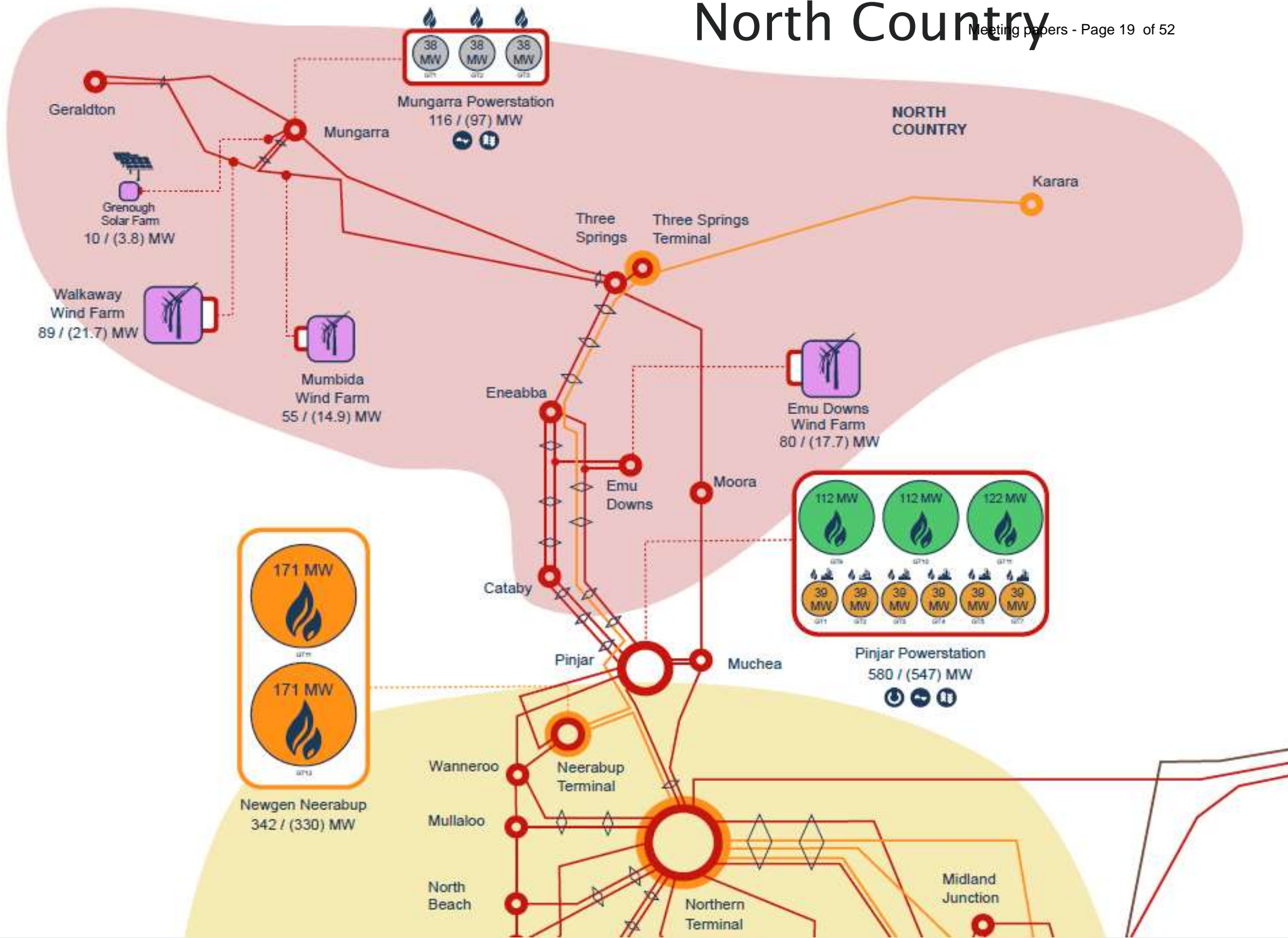
Item	Action	Responsibility	Meeting Arising	Status
44/2018	RCP Support to amend the minutes of the 14 February 2018 meeting to reflect the agreed changes and publish on the Panel website.	RCP Support	March 2018	Closed
45/2018	AEMO to give a presentation at the next MAC meeting on a specific scenario that can occur as a result of generators connecting to a part of the network that gives rise to either increased ancillary services requirements or a signal for investment to remove a network constraint.	AEMO	March 2018	Open
46/2018	The ERA to prepare a document for the MAC describing the types of Rule Change Proposals that the ERA intends to develop, and the practical ring fencing arrangements for work undertaken by the ERA to support the Panel	ERA	March 2018	Open
47/2018	RCP Support to ask MAC members to email their specific feedback on the four questions raised by RCP Support regarding roles and responsibilities in the WEM; and present the results at the next MAC meeting for discussion.	RCP Support	March 2018	Closed



SWIS potential operational/Market issues resulting from new connections

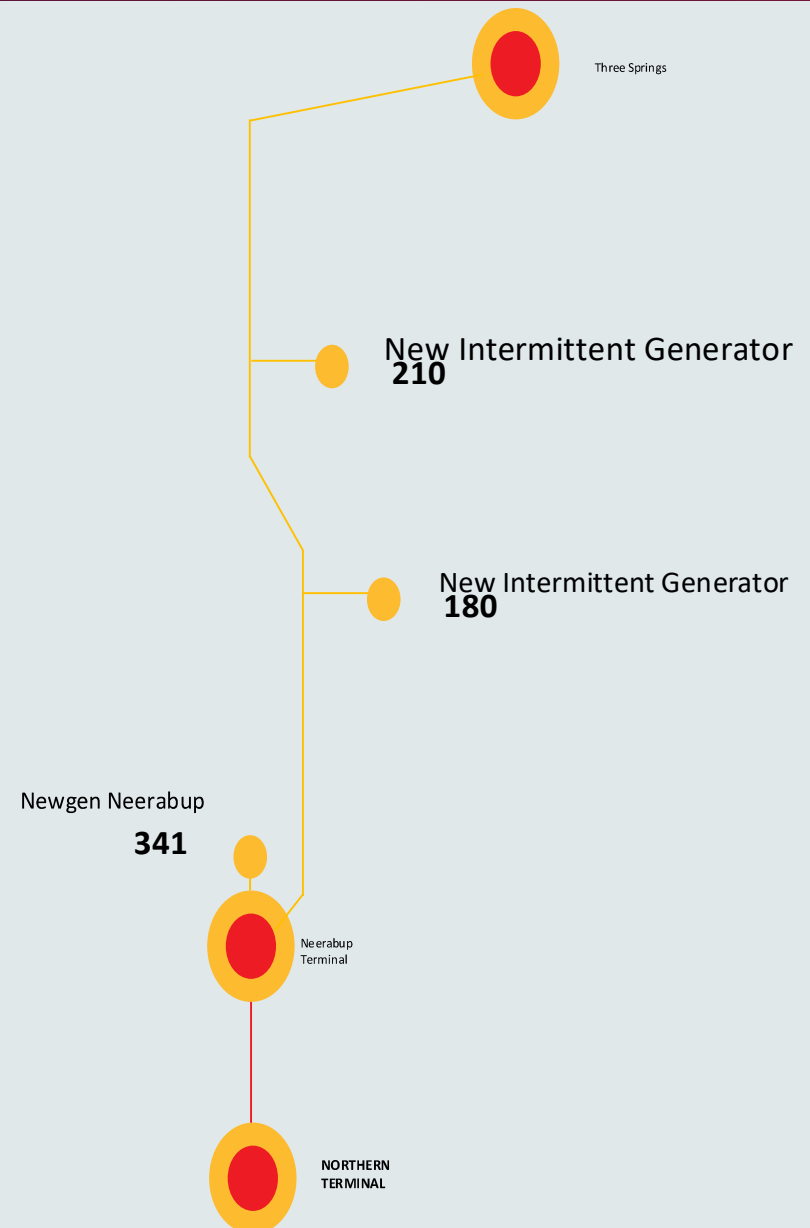
Dean Sharafi
April 2018

North Country



Scenario

- Connection of two new intermittent generators on the single 330 kV line between Neerabup Terminal (NBT) and Three Springs Terminal (TST)
- A network fault between NBT–TST will trip both generators
 - This will become the largest SWIS generation contingency
 - Will occur when the combined output of both generators is in excess of the output of the largest single generator (340 MW at peak or 200 MW off peak)
- In certain outage conditions, a network fault between Northern Terminal and NBT will also trip Newgen Neerabup



Spinning Reserve Requirements and dispatch outcomes

- Spinning Reserve Requirement currently set at 70% of largest Generator
 - Spinning Reserve payments are based on peak and off-peak margin values and quantities set by ERA
 - 2017/18 average spinning reserve capacity peak is 221.8 MW and off-peak is 190.2 MW
 - Any Spinning Reserve requirements in excess of these values is provided by Synergy without further remuneration
- Depending on circumstances, a contingency $>$ largest generator may present a challenge
 - As such, the new generators may have to be curtailed for security
 - Constrained-off payments would apply

Possible Immediate Corrective Actions

- Schedule additional SR
 - How? rule change, or under the current rules?
 - Risks: Synergy compensation, System Security
- Limit the size of the largest contingency by curtailing generation
 - How? Under a High Risk Operating State?
 - Risks: increased constrained-off compensation borne by Market Customers
- Both corrective actions have costs.

Possible Long-term Corrective Actions

- Network augmentation
 - Need to use the impact as a signal to remove the constraint
- Co-optimised energy and ancillary service markets
 - To allow the dispatch engine to identify whether it is cheaper to procure additional SR or to dispatch higher-cost energy (in place of curtailed low-cost energy)
- Market Design
 - Should there be consideration of explicit non-network System-related constraints in RCM?
 - How cost to the market should be allocated?

Other implications

- Reserve Capacity implications
 - Currently non-network constraints do not explicitly form part of the Certified Reserve Capacity assignment process
 - This may require a review
- Future implications
 - Connection of further generators in the North Country without network reinforcement will only exacerbate the situation
 - WEM Reform to allow constrained network access will not vary the situation, but will make connection of further generators more likely
- Discussion encouraged

MARKET ADVISORY COMMITTEE MEETING, 9 MAY 2018

FOR NOTING

SUBJECT: UPDATE ON AEMO'S MARKET PROCEDURES

AGENDA ITEM: 5

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	20 April 2018	June 2018 (date TBA)
Market Procedures for discussion	<ul style="list-style-type: none"> PSOP: Commissioning and Testing PSOP: Medium Term PASA PSOP: Short Term PASA 	Likely agenda <ul style="list-style-type: none"> PSOP: Medium Term PASA PSOP: Short Term PASA

3. AEMO PROCEDURE CHANGE PROPOSALS

The status of AEMO Procedure Change Proposals is described below, current as at 30 April 2018. 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_2017_12: Reserve Capacity Security	The proposed updates aim to improve the process for Market Participants providing Reserve Capacity Security as a Security Deposit, specify the process for AEMO to follow in determining when to Draw Upon Reserve Capacity Security, and generally reduce complexity and improve clarity.	Withdrawn, pending consideration of potential need for Rule 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.	Submissions closed 26 Feb 2018. Four submissions received.	Prepare Procedure Change Report for ERA consideration	TBA
AEPC_2018_02: PSOP: Tolerance Ranges	The new PSOP: Tolerance Ranges documents the procedure for determining and reviewing the Tolerance Range and any Facility Tolerance Range.	Commenced	-	21 Apr 2018
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.	Consultation open	Submissions close	21 May 2018
AEPC_2018_05: IMS Interface	The proposed amendments are consequential, arising from the amendment to the PSOP: Communications and Control Systems	Considered by APCWG 19 Feb 2018.	Publish Procedure Change Proposal	21 May 2018
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.	Considered by APCWG 20 Apr 2018.	Stakeholder workshop on commissioning issues	By mid-June 2018
PSOP: Medium Term PASA (Procedure Change Proposal number yet to be assigned)	The proposed amendments seek to revise the Procedure in line with current standards and ensure the Procedure complies with obligations.	Considered by APCWG 20 Apr 2018.	Consideration of revised procedure at next APCWG meeting	June 2018
PSOP: Short Term PASA (Procedure Change Proposal number yet to be assigned)	The proposed amendments seek to revise the Procedure in line with current standards and ensure the Procedure complies with obligations.	Considered by APCWG 20 Apr 2018.	Consideration of revised procedure at next APCWG meeting	June 2018

Agenda Item 7(a): Overview of Rule Change Proposals (as at 2 May 2018)

Meeting 2018_05_17

- Changes to the report provided at the previous MAC meeting are shown in **red font**.
- The next step and the timing for the next step is provided for Rule Changes 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	Commencement
RC_2017_10	18/01/2018	Rule Change Panel	Correction of Gazettal Errors	20/03/2018
RC_2017_05	07/07/2017	AEMO	AEMO Role In Market Development	23/03/2018

Rule Change Proposals Awaiting Approval by the Minister

Reference	Submitted	Proponent	Title	Commencement
None				

Formally Submitted Rule Change Proposals

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
Fast Track Rule Change Proposals with the Submission Period Closed						
None						

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
Fast Track Rule Change Proposals with the Submission Period Open						
RC_2018_01	24/04/2018	Rule Change Panel	New Notional Wholesale Meter Manifest Error		Closure of submission period	11/05/2018
Standard Rule Change Proposals with Second Submission Period Closed						
RC_2017_06	17/07/2017	AEMO	Reduction of the prudential exposure in the Reserve Capacity Mechanism	High	Publication of Final Rule Change Report	29/06/2019
RC_2014_07	22/12/2014	IMO	Omnibus Rule Change	Low	Publication of Final Rule Change Report	TBD
RC_2014_10	13/01/2015	IMO	Provision of Network Information to System Management	Superseded	Publication of Final Rule Change Report	TBD
Standard Rule Change Proposals with Second Submission Period Open						
None						
Standard Rule Change Proposals with First Submission Period Closed						
RC_2013_15	24/12/2013	IMO	Outage Planning Phase 2 – Outage Process Refinements	Medium	Publication of Draft Rule Change Report	TBD
RC_2014_03	27/01/2014	IMO	Administrative Improvements to the Outage Process	High	Draft Decision Report	TBD
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	TBD
RC_2014_06	28/01/2015	IMO	Removal of Resource Plans and Dispatchable Loads	Medium	Draft Decision Report	TBD
RC_2014_09	13/03/2015	IMO	Managing Market Information	Low	Publication of Draft Rule Change Report	TBD

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
RC_2015_01	03/03/2015	IMO	Removal of Market Operation Market Procedures	Low	Publication of Draft Rule Change Report	TBD
RC_2015_03	27/03/2015	IMO	Formalisation of the Process for Maintenance Requests	Low	Publication of Draft Rule Change Report	TBD
RC_2017_02	04/04/2017	Perth Energy	Implementation of 30-Minute Balancing Gate Closure	Medium	Publication of Draft Rule Change Report	TBD
RC_2018_03	01/03/2018	Collgar Wind Farm	Capacity Credit Allocation Methodology for Intermittent Generators	Medium	Publication of Draft Rule Change Report	24/04/2019

Standard Rule Change Proposals with the First Submission Period Open

None						
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Gazetted Rule Changes

Gazette		Content	Commencement
Number	Date		

Gazetted Rule Changes Commenced since the last MAC Meeting

2018/60	27/04/2018	Wholesale Electricity Market Amending Rules 2018 <ul style="list-style-type: none"> Amendments to abolish the Independent Market Operator 	28/04/2018
2018/60	27/04/2018	Gas Services Information Amending Rules 2019 <ul style="list-style-type: none"> Amendments to abolish the Independent Market Operator 	28/04/2018

Gazetted Rule Changes not yet Commenced

2016/89	31/05/2016	Wholesale Electricity Market Amending Rules 2016, Schedule B, Part 4 <ul style="list-style-type: none"> Further changes to the Reserve Capacity Mechanism involving Reviewable Decisions 	A time specified by the Minister in a Gazette notice
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Rule Changes Proposed by the Minister open for Consultation

Reference	Proponent	Description	Next Step	Timing
None				

Potential Rule Changes in the Pre-Rule Change Proposal Stage

Reference	Proponent	Description	Next Step	Timing
None				

Agenda Item 8(a): Roles in the Market

Meeting 2018_05_09

1. Background

As part of developing the Market Advisory Committee (**MAC**) Market Rules Issues List (**Issues List**), various MAC members raised issues relating to roles and responsibilities under the Wholesale Electricity Market Rules (**Market Rules**). As a result, the MAC agreed to look into the roles and responsibilities of the Market Participants and other agencies under Market Rules.

Rule Change Panel Support (**RCP Support**) will facilitate this discussion of the roles and responsibilities under the Market Rules, and the MAC is to subsequently determine how it would like to proceed.

Previously, MAC members were asked to answer the following questions:

- (1) Are the appropriate Market Participants or agencies undertaking the appropriate roles/responsibilities?
- (2) Should the roles/responsibilities of any Market Participant or agency be expanded or reduced?
- (3) Should any of the roles/responsibilities of any Market Participant or agency be shifted to another entity, and if so, to who?
- (4) Are there any unallocated roles/responsibilities, and if so, what are the unallocated roles and who should they be allocated to?

2. Submissions

RCP Support received four submissions, from the Australian Energy Market Operator (**AEMO**), Community Electricity, Perth Energy and Western Power. These submissions are provided in Table 1, below.

3. Previously identified issues

The ERA in the 2016-17 Wholesale Electricity Market Report to the Minister for Energy (**2016-17 WEM Report**) previously identified:

- The transfer of market operations to AEMO has left a gap in relation to the function of market development (since then, RC_2017_05 has commenced which has given AEMO some powers in respect of supporting market development);
- From Alinta Energy's submission, it is suggested that statements of expectation be developed for the ERA, Rule Change Panel and a statement of role for AEMO with associated performance indicators; and
- Western Power's submission suggested the creation of a Reliability Advisory Committee to update and align the Network Quality and Reliability of Supply Code, the Technical Rules and Market Rules.

4. Discussion

Given the submissions received and the issues previously identified in the 2016-17 WEM Report, RCP Support proposes to address each issue in Table 1 and Section 3; as follows:

- (1) Is the issue sufficiently defined and understood?
- (2) Is the issue outside the scope of the Market Rules?

If so, then RCP Support suggests that the issue should be deleted from the list.

- (3) Can a Rule Change Proposal be developed to address the issue?

If so:

- (a) does the potential rule change overlap with the PUO's current reform package;
- (b) what urgency rating would the MAC recommend for the proposal; and
- (c) are any MAC members interested in leading development of the Rule Change Proposal?

These issues can be logged in the Issues List as "Potential Rule Change Proposals", where progress can be monitored.

- (4) Does the issue require broader review?

RCP Support is currently finalising a proposed process to manage the Issues List, which will be tabled for consideration at the MAC meeting in June 2018. RCP Support suggests that any issues identified as part of the review of roles in the market that require broader review should be managed in accordance with the agreed process.

Table 1: Submissions

No	Submitter	Submission
1	AEMO	<p>Responsibility for setting document retention requirements (clauses 10.1.1 and 10.1.2) and confidentiality statuses (clauses 10.2.1 and 10.2.3)</p> <ul style="list-style-type: none"> AEMO believes this responsibility should move from AEMO to the ERA. AEMO considers that it is not the best entity to hold these responsibilities as it no longer maintains the broader market development and compliance functions of the IMO.
2	AEMO	<p>Market Procedure for conducting the Long Term PASA (clause 4.5.14)</p> <ul style="list-style-type: none"> 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. AEMO considers that its Market Procedure should not cover the ERA's review to provide ERA with scope for independently scoping the review. As such, AEMO recommends that this requirements be removed from the head of power clause within the Market Rule.
3	AEMO	<p>Clarifying reliability and security standards and assigning responsibility for satisfying these, as well as for ongoing review of the appropriateness of the standards.</p>
4	AEMO	<p>The role of AEMO (as the system operator) in the connections process and establishment/monitoring of performance standards.</p>
5	AEMO	<p>The need for a system planning function, similar to that recommended in the Finkel Review and being developed through the Integrated System Plan in the NEM.</p>
6	AEMO	<p>The ability for stakeholders other than Western Power to propose amendments to the Technical Rules.</p>
7	AEMO	<p>Transitional and enduring responsibility for calculating Marginal Loss Factors and developing constraint equations/definitions.</p>
8	AEMO	<p>AEMO would also note that there is potential for considering new roles and functions such as those related to Distribution System operation and microgrids and would equally look to the PUO to draw together thinking on this as part of holistic policy planning.</p>
9	Community Electricity	<p>Agencies should be empowered, resourced and required to initiate and pursue any rule change they think proper.</p>

Table 1: Submissions		
No	Submitter	Submission
10	Community Electricity	The interplay of the Technical Code, Market Rules and PSOPs should be properly integrated and managed.
11	Community Electricity	The role of System Planning should expressly be provided for and managed by an entity to which Western Power, AEMO, the ERA and interested parties provide non-binding recommendations for its consideration. I perceive that this entity would properly have responsibility for defining and resolving all system planning issues, including generation mix, DSM, emissions, ancillary services, and network congestion & local solutions. Regarding its role in generation mix and alleviating congestion, I perceive that the likely outcomes of EMR phase 2 will require a stronger degree of central planning of new generation developments as the "hidden hand" of the market won't be able to optimally respond to the prospective complexity and uncertainty. Or rather, that the response of the hidden hand will be to build nothing new until the capacity price rises sufficiently to develop small diesel peakers with short paybacks... returning to the problem we started with.
12	Perth Energy	<p>The technical rules are currently held by Western Power with approval for any changes being considered by the ERA. When the electricity industry was virtually fully integrated through SECWA or the original Western Power it was logical that custody of the technical rules should be with the networks arm of the business. The rules were largely there to safeguard the technical integrity of the network. Also, being an integrated industry the interests of other parts of the business, such as generators, could be taken into account through internal discussion. At that time, too, technical developments in areas such as gas turbines was relatively slow and renewables were generally only experimental.</p> <p>We are now in an environment where the technical rules directly affect the activities of many market participants. Technology developments are also progressing much more quickly in areas such as renewable energy, batteries and advanced gas turbines. Perth Energy considers that parts of the technical rules, potentially all of them, should be rolled into the Market Rules to ensure that:</p> <ul style="list-style-type: none"> • The technical rules and Market Rules are aligned • The technical rules support the overall market objectives • All market participants will gain a better understanding of the technical rules • The interests of all market participants are fully considered within the technical rules • Required changes can be made more readily and with broad input.

Table 1: Submissions

No	Submitter	Submission
		Perth Energy considers that this should be undertaken alongside the significant other network administrative changes (AQP, DSOC, etc.) that will be required in the change to constrained network access.
13	Perth Energy	<p>The MAC recently asked for Market Participants to put forward proposed rule changes and order these into a priority list. This was a positive move but Perth Energy suggests that this approach should go further through development of a roadmap, or maps, for possible market development options. Market Rules can be considered as solutions but what we also need is a consolidated set of questions that are being identified. For example, System Management has recently indicated its concerns about grid stability due to the high level of renewables. At the PUO briefing the modeller from EY noted that in 10 years' time exports from behind-the-meter solar will exceed system demand. Another issue is that there are no rules covering energy storage. These types of issues need to be addressed in an integrated manner where the full ramifications of each issue are, as far as possible, identified and resolved.</p> <p>Perth Energy has, separately, recommended to the ERA that their market reviews could be the vehicle to collate and describe the various issues that market participants foresee. However, there would still need to be a mechanism to coordinate the development of solutions.</p> <p>It could be argued that it is the Government's role to look at these matters and develop solutions but, in practice, the market "belongs" to all of the market participants as well as to its ultimate customers. Certainly Government has a very significant role to play as a major business owner, in determining the industry structure and in authorising regulation. However, it is unrealistic to expect Government to be able to identify either all of the questions or all of the solutions. It could also be suggested that it is conflicted through ownership of so much of the market.</p> <p>Perth Energy considers that the Rule Change Panel, with the support of MAC, should be given the responsibility to identify the issues facing the market over the coming, say, 3-5-10 years and develop potential road maps for required changes. It is expected that this would flag up some changes that will be required in almost all future scenarios (new definitions of ancillary services, perhaps) plus identify options depending on different technology or policy futures.</p> <p>We suggest the Rule Change Panel for this role because this entity has the support of the MAC which represents a very broad range of industry, Government entities and customers. To this end we support the current policy of encouraging observers/visitors to attend and participate in MAC.</p>

Table 1: Submissions		
No	Submitter	Submission
14	Western Power	<p><u>Grid Transformation</u></p> <p>The emergence of microgrids and associated technologies in Western Australia, and the potential role they may have in the supply of affordable, secure, reliable and sustainable energy should be considered by the Government agencies and Market Participants.</p> <p>Grid transformation will impact the WEM and to accommodate the changes that will occur, discussions between the Government agencies and Market Participants will need to continue. An opportunity exists for the PUO to continue providing leadership on the matter and assist in facilitating these discussions. Consideration should also be given on Western Power's role as the Network Operator in the SWIS, and whether its role and responsibilities need to evolve with the transformation of the grid.</p>
15	Western Power	<p><u>Reliability in the SWIS</u></p> <p>Under clause 2.2.1 of the WEM Rules, System Management's main function is to ensure that the SWIS operates in a secure and reliable manner. As there is currently no definition of "reliability" and what it entails, it is unclear whether System Management's function also involves ensuring customer reliability of supply during network outages. There is a need to differentiate between the network reliability requirements and system security and reliability requirements. Should the two requirements be differentiated, there will be a need to clearly define the roles that System Management (as System Operator) and Western Power (as Network Operator) will have in ensuring that each reliability requirement is met.</p>
16	Western Power	<p><u>Agility to respond to market reform drivers</u></p> <p>There is an increasing need for the WEM Rules and Market Procedures change process to adapt and reflect the current market developments in a timely manner. In particular, the AEMO current process to amend its Market Procedures requires substantial consultation and time. It would be beneficial for the AEMO to adopt a more streamlined procedure change process to ensure that the Market Procedures keep up with market developments and practices. For example, a process similar to the fast track rule change process for the WEM Rules which would allow it to expedite certain Market Procedure amendments.</p>
17	Western Power	<p>AEMO's role and responsibilities regarding the regional system reliability to ensure clear division of responsibilities between Western Power and AEMO.</p>

Table 1: Submissions		
No	Submitter	Submission
18	Western Power	The roles and responsibilities regarding further security limitations need to be identified and appropriately assigned. Western Power would like to work together with AEMO to arrive at an appropriate solution.
19	Western Power	AEMO and Western Power's roles and responsibilities in system planning.
20	Western Power	Western Power is also of the view that its role and responsibilities as the Network Operator should be considered to allow it to take a role in grid transformation.

Agenda Item 8(b): Treatment of Storage Facilities in the Wholesale Electricity Market

9 May 2018

1. Background

On 8 November 2017, the Market Advisory Committee (**MAC**) reviewed a list of 43 candidate issues that had been proposed for inclusion in the MAC Market Rules Issues List (**Issues List**) by MAC members and observers. During the discussion, the MAC identified seven broader issues (encompassing fourteen candidate issues), in some cases extending beyond the scope of the Wholesale Electricity Market (**WEM**) Rules (**Market Rules**), that require further review before specific changes to the Market Rules are progressed.¹

During the 13 December 2017 MAC meeting, RCP Support proposed to schedule a series of preliminary discussions for the seven broader issues, where the MAC would be asked to provide input into:

- confirmation of whether a review is needed to consider the issue; and
- where the requirement for a review is confirmed, identification of the proposed terms of reference, deliverables and relative urgency of that review.

During the 14 February 2018 MAC meeting, the MAC agreed that the second preliminary discussion should cover the treatment of storage facilities in the WEM. This paper has been developed by RCP Support to provide a starting point for that discussion.

2. Scope of Discussion and Relevant Candidate Issues

The need to consider the participation of storage in the WEM was raised in two of the candidate issues for the Issues List:

- Issue 10: “Review of participant and facility classes to address current and looming issues”, including “incorporation of storage facilities” and “reconsideration of potential for Dispatchable Loads in the future” (this issue has been placed on hold pending the Minister’s energy market reforms); and
- Issue 28: “Appropriate rule changes to allow for battery storage to be considered under the Market Rules. 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.”

The role of storage is also expected to be relevant to issue 4: “Incentives for maintaining an appropriate generation mix”.

¹ Some of the broader issues identified by the MAC extend beyond the scope of the Market Rules and may require amendments to instruments other than the Market Rules.

The scope of this preliminary discussion is whether, when and how to facilitate the participation of storage devices in the WEM as either:

- stand-alone Registered Facilities; or
- components of hybrid Facilities, to improve the performance of those Facilities, e.g.
 - combined with intermittent generating units (wind/solar) to improve reliability at peak and/or reduce volatility; or
 - combined with a dispatchable generating unit, to improve start-up times and/or ramp rates.

The scope is not restricted to any specific storage technologies (although battery storage is an obvious candidate for the WEM), as it will be important to ensure that future provisions for storage in the WEM do not inadvertently exclude any potentially valuable storage technologies.

The scope does not include the following issues, which will be covered in a separate preliminary discussion of behind-the-meter issues:

- behind-the-meter battery storage that is not a part of a Registered Facility;
- provision of ancillary services from aggregations of Loads; and
- the future role of electric vehicles in the WEM.

3. Characteristics of Storage Devices

The characteristics of storage are different in several ways from those of the more traditional facility types. While different storage devices have varying characteristics, strengths and weaknesses (e.g. varying abilities to switch rapidly between charging and discharging), in general storage devices:

- (for stand-alone devices at least) both import and export material quantities of energy from/to the grid;
- have limited run times and require time to recharge after discharging; and
- are capable of very fast start-up times, response times and ramp rates.

These characteristics will need to be kept in mind when considering how storage devices should be incorporated into the WEM design.

Question 1: *What other characteristics of storage devices need to be taken into account when considering how to incorporate storage devices into the WEM design?*

4. Stand-Alone Storage Facilities

The services that might be provided by a stand-alone registered storage facility include (but are not limited to):

- regulation (LFAS) ancillary services;
- contingency raise (Spinning Reserve) and lower (Load Rejection Reserve) ancillary services, including fast response services;
- provision of energy at times of peak system demand (Reserve Capacity);
- provision of fast-ramping, short-term energy provision to help manage evening peaks; and

- temporary absorption of what would otherwise be excess generation during low-demand periods.

Question2: *What other services could be provided by stand-alone registered storage facilities in the WEM?*

However, to support this level of participation the following design questions (at least) would need to be considered.

Registration and Standing Data

The WEM does not have a 'storage' facility type that could be used to register a stand-alone, utility-scale storage device. The participant and facility classes for storage would need to be carefully defined to avoid unnecessary complexity and IT costs, or the creation of perverse incentives.

Below are some of the questions that would need to be considered.

- How should a stand-alone storage facility be registered, e.g. as one Facility of a distinct, new Facility Class (possibly with two dispatchable unit ids), or as a linked Generator/Load pair?²
- When must/may a storage facility be registered in the WEM, e.g. would the existing 10 MW threshold for generating units also apply to storage?
- When should the output of a storage facility need to be scheduled?
- When should the 'load' component of a storage facility need to be:
 - registered (i.e. to ensure some ability for AEMO to monitor and/or direct its activity); and/or
 - scheduled?
- Should a Rule Participant that registers a stand-alone storage facility be a Market Generator, Market Customer, both, or some other type of Market Participant?
- What Standing Data would be required for a storage facility?
- Should the energy drawn from the connection point of a registered stand-alone storage facility be used for any other purpose except to charge and operate the storage device?

Participation in the Reserve Capacity Mechanism (RCM)

The eligibility of storage facilities for Certified Reserve Capacity also needs to be considered. As consumers of energy, storage facilities should also be eligible for Individual Reserve Capacity Requirement (**IRCR**) charges.

Below are some of the questions that would need to be considered.

- What should the certification requirements and Reserve Capacity Obligations be for a storage facility? For example:
 - Should storage facilities be able to meet their Reserve Capacity Obligations by reducing their 'consumption', or should they be required to actually provide output to the grid?

² For convenience, the remainder of this paper assumes a single 'Storage' Facility, with a single connection point and meter, potentially with two distinct identifiers for participant in dispatch processes (for each of generation and consumption). However, this is obviously only one of several options.

- What minimum run times and maximum recharge times would be sufficient to provide a viable Reserve Capacity service?
- What rules should apply regarding when a storage facility must be available to provide output to the grid? How would the facility's Reserve Capacity Obligation Quantity in a Trading Interval be determined?
- What rules, if any, should apply regarding when a storage facility may draw energy from the grid?
- Would a system-wide limit need to be set on the quantity of certified storage capacity that is charged from the grid? How would such a limit be determined?
- What should the Reserve Capacity Test requirements be for a storage facility? For example, would a Reserve Capacity Test need to last for the full agreed minimum discharge period to adequately demonstrate the ability of the facility to meet its Reserve Capacity Obligations?
- What changes, if any, would be needed to the Market Rules to account for storage facilities in the calculation of IRCRs?

Participation in the Short Term Energy Market (STEM)

Below are some of the questions that would need to be considered regarding the rights and obligations of Market Participants with storage facilities to participate in the STEM.

- What should be the requirement for a storage facility with Capacity Credits to offer into the STEM?
- What Energy Price Limit should apply to energy from a storage facility that is offered into the STEM?
- What restrictions, if any, should be placed on the ability of a Market Participant with a stand-alone storage facility to purchase energy in the STEM?

Participation in the Real-Time Energy and Ancillary Service Markets

The ability of storage facilities to participate in the real-time energy and ancillary service markets will depend on and should be considered during the design of those markets. Storage facilities are also likely to be able to provide other, non-market ancillary services to the WEM.

Below are some of the questions that would need to be considered.

- What obligations should apply to how/when storage facilities with/without Capacity Credits must participate in the real-time spot market (given that these facilities are likely to have limited run times)?
- What Energy Price Limits should apply to storage facility dispatch offers and bids?
- What method should be used to ensure that a storage facility never receives dispatch instructions to charge and discharge at the same time?
- What, if any, specific provisions are needed to manage the transition of a storage facility from charging to discharging?
- What, if any, specific provisions are needed to account for the fast ramp rates of storage devices?
- What, if any, specific provisions are needed to facilitate the participation of storage facilities in the frequency control ancillary service markets?

- What other ancillary services could be provided by storage facilities, and what are the technical requirements for these services?
- What compliance and good faith bidding obligations should apply to storage facilities, e.g. should similar obligations apply to dispatch bids (for consumption) as to dispatch offers (for generation)?
- How should the tolerance range for a scheduled storage facility be determined?
- What factors affect the short run marginal cost of a storage facility?

Planning, Forecasting and Outages

Below are some of the questions that would need to be considered in relation to planning, forecasting and the management of outages.

- How should storage facilities be accounted for in the LT PASA, MT PASA, ST PASA and pre-dispatch processes? For example:
 - what changes, if any, would be needed to accommodate the forecast consumption of storage facilities; and
 - what changes, if any, would be needed to account for the limited discharge duration of storage facilities and the time needed for them to recharge?
- What should the outage reporting obligations be for a storage facility, e.g. how should the limited run times and recharge needs of a storage facility be taken into account? For example, if a storage facility had a problem that increased its recharge time, would this be regarded as an outage?
- What information should be made publicly available about the current status of a storage facility, e.g. its state of charge and/or input/output level?
- Would any specific commissioning test provisions be needed, e.g. around the testing of the charging capabilities of the facility?

Settlement and Fees

Below are some of the questions that would need to be considered.

- How should Market Fees be allocated to Market Participants with storage facilities?
- How should reconciliation charges be allocated to Market Participants with storage facilities?
- On what basis should ancillary service costs be allocated to Market Participants with storage facilities?
- How should storage facility capacity be treated in the calculation of dynamic refund factors?
- Should storage facilities be eligible for a share of Capacity Cost Refunds? If so, how should their share be calculated?
- How should Capacity Cost Refunds be calculated for storage facilities?
- If a five-minute dispatch cycle is implemented, should a staged transition to five-minute settlement be considered, to improve the incentives for storage facilities to participate in the real-time energy market?

Other Considerations

Other matters that would need to be considered include:

- how storage providers should be represented on the MAC;

- what changes should be made to the Market Surveillance Data Catalogue and the obligations of the Economic Regulation Authority to monitor the effectiveness of the market;
- the eligibility of storage facilities to provide Network Control Services; and
- what specific provisions, if any, would be needed around the determination of Loss Factors for storage facilities, e.g. to require the calculation of individual Loss Factors, and whether/when different Loss Factors would need to be determined for import and export.

Non-Market Rules Considerations

In addition to any changes required to the Market Rules, the following matters would also need to be considered:

- technical connection requirements, e.g. whether/what changes are required to the Technical Rules;
- access contract arrangements, e.g. do any reference services need to be created/amended;
- connection point and metering requirements; and
- licensing requirements.

Question 3: *What other material design matters would need to be addressed to allow storage devices to fully participate in the WEM as stand-alone Registered Facilities, while avoiding perverse outcomes?*

5. Use of Storage Devices in Hybrid Facilities

A storage device could also be used as a component of a hybrid Registered Facility. Examples include:

- a battery installed behind the connection point of an Intermittent Generator, to improve the reliability of the Intermittent Generator during peak Trading Intervals and/or to reduce the volatility of the Intermittent Generator's output; and
- a battery installed behind the connection point of a Scheduled Generator, to reduce the effective start-up time and/or increase the effective ramp rate of the Scheduled Generator.

Question 4: *What other types of hybrid facility, if any, should be considered as candidates for participation in the WEM?*

The use of storage as part of an Intermittent Generator or Scheduled Generator would raise different market design issues to those discussed above for a stand-alone Registered Facility. Below are some of the market design questions that would need to be considered.

- What additional/different technical connection requirements should apply?
- What additional/different Standing Data requirements would apply?
- What processes would be needed to report and manage periods when the storage device is unavailable or not fully operational?
- For Intermittent Generators incorporating a storage device:

- How would the presence of the storage device affect the forecasting of the Facility's output over different time scales?
- How would the presence of the storage device affect the Intermittent Generator's participation in the RCM? For example:
 - What obligations, if any, might need to be placed on the Generator regarding the use of the storage device, if that device is used to increase the Relevant Level of the hybrid Facility (i.e. for the operation of the storage device to be consistent with the mode of operation assumed for certification)?
 - What restrictions, if any, should apply to the charging of the storage device from the grid?
- If central wind/solar forecasting is implemented in the WEM, how would the storage device be accounted for in the forecasting process?
- For Scheduled Generators incorporating a storage device:
 - How would the presence of the storage device affect the Scheduled Generator's participation in the RCM? For example:
 - To what extent should the presence of the storage device affect the certification of the Scheduled Generator?
 - What restrictions, if any, should apply to the use of the storage device during Reserve Capacity Tests?

Question 5: *What other material design matters would need to be addressed to allow storage devices to participate in the WEM as components of a hybrid Registered Facility, while avoiding perverse outcomes?*

6. Timing and Responsibility

The viability of storage as a service provider in the WEM depends on several factors, including the costs and characteristics of the storage devices, the requirement for specific services, and the availability and costs of alternative providers for those services. It is uncertain exactly when the use of storage in the WEM will become cost-effective. However, there are obvious potential benefits of storage, and RCP Support expects that the use of storage will eventually become an important feature of the WEM.

Ideally the market changes to support storage will be developed and implemented by the time that storage becomes an efficient option for the WEM. Given that the cost of storage is steadily reducing, and the problems that storage could help to address are steadily increasing, RCP Support considers that storage could become an economically viable means to provide some services within the next five years, so work on the required market changes should proceed as soon as practicable. Although the point where storage becomes economically viable may be later than five years, the advantages of being ready to support storage as soon as it becomes viable are likely to any outweigh the potential benefits of delaying the market changes.

This timeframe overlaps with the timeframe for the Minister's proposed reforms to implement constrained network access in the South West Interconnected System (**SWIS**). There are therefore three options:

1. the Public Utilities Office (**PUO**) or some other party develops and implements the necessary changes to the market as a distinct, separate project, conducted in parallel with the Minister's reform program;
2. the PUO or some other party commences work on the implementation of storage after the changes to implement constrained network access have been completed; or
3. the PUO incorporates support for storage into the Minister's changes to implement constrained network access, ideally with the intent to support certification of new facilities in 2020 and full implementation in 2022.

RCP Support does not recommend option 1, because the changes needed to allow storage to participate fully in the market have very strong interdependencies with the Minister's proposed changes, so it would not be feasible to progress the former as a separate work stream over the next few years. For example, it would be impractical to conduct a separate review of how to amend the ancillary services design to accommodate storage at the same time as the PUO is making fundamental changes to the design of ancillary services.

Option 2 would delay the implementation of support for storage, potentially beyond the point when storage could begin to provide large net benefits to the WEM. Additionally, storage has unique characteristics that could affect several of the most fundamental aspects of the WEM design, including the specification of participant and facility classes, ancillary services and the Reserve Capacity 'product'. For this reason, RCP Support considers it would be very difficult to implement support for storage as an afterthought to the new market design without risking material rework (with associated additional costs for consumers) and/or imposing unnecessary limitations on the use of storage technologies.

RCP Support therefore recommends that the PUO incorporate support for storage into the Minister's changes to implement constrained network access (option 3). RCP Support considers that given the nature of the changes needed to implement both constrained network access and support for storage, the current program to implement the former provides an ideal opportunity to minimise the costs of implementing the latter.

It may also be feasible to make interim changes before 2022 that would support at least some participation of storage in the WEM. For example, it may be possible to make some relatively limited changes to allow storage to provide specific ancillary services or contribute to a hybrid Registered Facility. However, the benefits of making such changes would need to be carefully balanced against the costs of making potentially short-term or interim changes to regulatory instruments and IT systems.

Question 6: *Does the MAC agree that support for storage in the WEM should be implemented as soon as reasonably practicable, and if not, when would be a more appropriate time?*

Question 7: *Does the MAC agree with RCP Support's recommendation that the implementation of support for storage be incorporated into the Minister's reform program to implement constrained network access in the WEM by 2022, and if not why?*

Question 8: *What, if any, interim or smaller-scale measures might be beneficial and feasible to implement in the WEM before the commencement of the new market arrangements in 2022?*

7. Recommendations

It is recommended that the MAC:

- discusses the treatment of storage in the WEM, including the eight questions raised in this discussion paper;
- supports the incorporation of support for storage into the Minister's changes to implement constrained network access, with the intent to support certification of new facilities in 2020 and full implementation in 2022;
- provides the PUO with a version of the notes set out in sections 3, 4 and 5 of this discussion paper to help the PUO formulate a work program to incorporate support for storage into the Market Rules, once the notes have been updated to reflect any feedback from the MAC;
- discusses the next steps regarding any interim or smaller-scale measures suggested by MAC members or observers; and
- places candidate issue 28 on hold pending the outcomes of the Minister's reform program.

Agenda Item 8(c): MAC Market Rules Issues List – Update on Potential Rule Change Proposals

9 May 2018

Background

At its meeting on 8 November 2017, the Market Advisory Committee (**MAC**) identified six potential Rule Change Proposals that had been proposed by MAC members and observers as candidates for inclusion in a MAC Market Rules Issues List (**Issues List**).

The potential Rule Change Proposals, along with an alternative solution for one of the issues (implementation of a full runway model for Spinning Reserve cost allocation to address issue 20/38), were discussed in greater detail at the 13 December 2017 MAC meeting. Following this discussion, MAC members and observers were asked to recommend urgency ratings for each potential Rule Change Proposal.

The responses provided by MAC members and observers were discussed at the 14 February 2018 MAC meeting, and the Rule Change Panel provided preliminary urgency ratings for each issue at its 22 March 2018 meeting.

A summary of the urgency ratings provided by the MAC and the Rule Change Panel is available in the table below.

Recommendation

It is recommended that the MAC:

- notes the preliminary urgency ratings provided by the Rule Change Panel for the potential Rule Change Proposals; and
- discusses whether issues 14/36 (Capacity refund arrangements), 18 (Spinning Reserve Procurement Model) and 20/38 (Spinning Reserve Cost Allocation Model) should be retained in the Issues List.

Recommended Urgency Ratings for Potential Rule Change Proposals					
Id	Raised By	Description	MAC Urgency Rating Recommendations		Rule Change Panel Preliminary Rating
13	AEMO	<p>Use of data for market monitoring and compliance:</p> <ul style="list-style-type: none"> The restriction on the ERA in clause 2.16.14, preventing it from using information gathered in market monitoring for other purposes (e.g. compliance) seems counter-intuitive. 	Medium:	Geoff Gaston, AEMO, Alinta, Bluewaters	Medium
14/36	Bluewaters/ ERM Power	<p>Capacity Refund Arrangements</p> <p>Bluewaters' comments:</p> <ul style="list-style-type: none"> 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 Participant to meet its 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. Excessive insurance premiums and cost for meeting prudential support requirements. Recommendation: imposing seasonal, monthly and/or daily caps on the capacity refund. 	Park:	ERM Power	Do not progress
			Do not progress:	AEMO, Alinta, Peter Huxtable	
			Low:	Geoff Gaston	
			Medium:	Bluewaters	

Recommended Urgency Ratings for Potential Rule Change Proposals				
Id	Raised By	Description	MAC Urgency Rating Recommendations	Rule Change Panel Preliminary Rating
		<p>ERM Power's comments:</p> <ul style="list-style-type: none"> Although the new dynamic refund mechanism has been implemented, the refund regime is still overly punitive. Generators in fact have not much certainty in the refunds it may be exposed to at any time of year as refunds are now calculated based on the supply/demand balance of available generation. In addition to this, there is still a 6x multiplier that can be applied not just over the potential peak summer months, but is now applicable to any time of the year. Is it time to look at reducing this multiplier to a level that is less punitive? 		
18	Bluewaters	<p>Spinning Reserve procurement model</p> <ul style="list-style-type: none"> The Spinning Reserve procurement process does not allow Market Participants to respond to the draft Spinning Reserve margin values determination by altering its Spinning Reserve offer. Recommendation: Market Rules to allow Market Participants to respond to the draft margin values determination by altering its Spinning Reserve offer. 	<p>Need to progress unclear: AEMO</p> <p>Do not progress: Alinta</p> <p>Low: Geoff Gaston</p> <p>Medium: Bluewaters, Peter Huxtable</p>	<p>Suggest remove from the list, and re-insert if Bluewaters' discussions with AEMO and the ERA determine that there is a requirement for a specific Rule Change Proposal.</p>

Recommended Urgency Ratings for Potential Rule Change Proposals				
Id	Raised By	Description	MAC Urgency Rating Recommendations	Rule Change Panel Preliminary Rating
20/38	Bluewaters/ ERM Power	<p>Spinning Reserve Cost Allocation Model</p> <p>Bluewaters comments:</p> <ul style="list-style-type: none"> The upper bound of Block 2 and lower bound of Block 1 are set to 200 MW. This, in conjunction with the sizes of the existing generating units in the WEM, creates a perverse incentive for some generating units to not make capacity above 200 MW available. This is because doing so is likely to subject the generating units to substantial increase of the Spinning Reserve costs. Recommendation: to review the value of upper bound of Block 2 and lower bound of Block 1 of the Spinning Reserve cost allocation model <p>ERM Power comments:</p> <ul style="list-style-type: none"> The partial runway model of apportioning ancillary service costs based on whether one is in Block 1 or Block 2 can be prohibitive and lead to inefficient market outcomes. Is there a better way of calculating and charging out ancillary services currently given that we don't really know when the constrained grid is implemented what this means for the SWIS. Again, this is related to efficiency of dispatch within the SWIS. 	<p>Do not progress: Alinta, Peter Huxtable</p> <p>Full runway model preferred: AEMO</p> <p>Low: Geoff Gaston</p> <p>High: Bluewaters</p>	<p>Medium, but likely to be parked pending progression of the preferred full runway model by the PUO, i.e. issue 20/38 (alt).</p>

Recommended Urgency Ratings for Potential Rule Change Proposals					
Id	Raised By	Description	MAC Urgency Rating Recommendations		Rule Change Panel Preliminary Rating
31	Synergy	<p>LFAS Report</p> <ul style="list-style-type: none"> Under the clauses 7A.2.9(b) and 7A.2.9(c), Synergy is obligated to compile and send the LFAS weekly report to AEMO based on the LFAS data for the Trade Date supplied to Synergy by System Management. Given that System Management is now part of AEMO, it seems reasonable to remove such obligation to remove administrative burden. 	Low: Medium: High:	Alinta, Bluewaters Geoff Gaston, AEMO Peter Huxtable	Low urgency, but OK to progress using the Fast Track Rule Change Process
43	ERA	<p>SRMC Investigation Process</p> <ul style="list-style-type: none"> SRMC investigations under market effectiveness rule 2.16 no longer have a link to take these matters to the Electricity Review Board (ERB). A separate investigation is required under market rule 2.13 to take the matter to the ERB. This is neither efficient nor cost effective, and is further complicated by the information use restriction in market rule 2.16.14 (refer to issue 13). 	Low: Medium: High:	Bluewaters Geoff Gaston, AEMO, Alinta Peter Huxtable	Medium
20/38 (alt)		<p>Full runway Spinning Reserve Cost Allocation Model</p> <p>The current partial/modified runway model for Spinning Reserve cost is a simplification of the more sophisticated and equitable full runway model. The MAC has previously expressed support for the implementation of a</p>	Medium: High:	Alinta, Peter Huxtable AEMO	Medium

Recommended Urgency Ratings for Potential Rule Change Proposals				
Id	Raised By	Description	MAC Urgency Rating Recommendations	Rule Change Panel Preliminary Rating
		full runway model in preference to making any adjustments to the block sizes under the current model. The implementation of the full runway model was one of the recommendations of the Electricity Market Review's Energy Market Operations and Processes project.		