

Meeting Agenda

Meeting Title: Market Advisory Committee

Date: Tuesday 2 February 2021

Time: 9:30 AM – 11:30 AM

Location: Online meeting

Persons who would like to attend the online MAC meeting are asked to register with RCP Support (Support@rcpwa.com.au) by close of business on Friday 29 January 2021.

RCP Support will then send an invite to all of the registered attendees on Monday 1 February 2021 with a link to allow attendees to log into the meeting.

Item	Item	Responsibility	Duration
1	Welcome	Chair	2 min
2	Meeting Apologies/Attendance	Chair	3 min
3	Minutes of Meeting 2020_11_17	Chair	5 min
4	Action Items	Chair	5 min
5	MAC Market Rules Issues List	Chair	5 min
6	Update on WA Government Reforms	ETIU	10 min
7	AEMO Procedure Change Working Group	AEMO	5 min
8	Rule Changes		
	(a) Overview of Rule Change Proposals	Chair	10 min
9	Economic Regulation Authority Reviews		
	(a) Review of the Minimum STEM Prices	ERA	10 min
	(b) Findings and Recommendations form the Generator Availability Review	ERA	25 min

Item	Item	Responsibility	Duration
10	Increase in Spinning Reserve Requirement for Distributed PV Tripping	AEMO	35 min
11	General Business (a) Commencement of the following Procedure Change Proposals on 1 February 2021: <ul style="list-style-type: none"> • REPC_2020_01: Changes to Market Procedure Notice and Communications; and • REPC_2020_02: Changes to Market Procedure: Procedure Administration. 	Chair	5 min

Next Meeting: 16 March 2021

Please note, this meeting will be recorded.

Minutes

Meeting Title:	Market Advisory Committee (MAC)
Date:	17 November 2020
Time:	9:30 AM – 11:15 AM
Location:	Online via Microsoft Teams

Attendees	Class	Comment
Stephen Eliot	Chair	
Matthew Martin	Small-Use Consumer Representative	
Martin Maticka	Australian Energy Market Operator (AEMO)	
Dean Sharafi	System Management	
Sara O'Connor	Economic Regulation Authority (ERA) Observer	
Kate Ryan	Minister's Appointee – Observer	
Andrew Everett	Synergy	
Jacinda Papps	Market Generators	
Wendy Ng	Market Generators	
Daniel Kurz	Market Generators	
Tom Frod	Market Generators	
Patrick Peake	Market Customers	
Geoff Gaston	Market Customers	
Timothy Edwards	Market Customers	
Peter Huxtable	Contestable Customers	
Zahra Jabiri	Network Operator	9:40 - 11:00 AM

Also in Attendance	From	Comment
Matt Shahnazari	ERA	Presenter
Jenny Laidlaw	RCP Support	Minutes
Adnan Hayat	RCP Support	Observer
Laura Koziol	RCP Support	Observer
Richard Cheng	ERA	Observer
Sandra Ng Wing Lit	ERA	Observer

Also in Attendance	From	Comment
Emma Forrest	ERA	Observer
Julian Fairhall	ERA	Observer
Adrian Theseira	ERA	Observer
Elizabeth Walters	ERA	Observer
Rajat Sarawat	ERA	Observer, from 9:35 AM
Jo-Anne Chan	Synergy	Observer
Chris Binstead	Synergy	Observer, to 10:40 AM
Dora Guzeleva	Energy Policy WA (EPWA)	Observer
Jai Thomas	Energy Transformation Implementation Unit (ETIU)	Observer, to 11:00 AM
Aditi Varma	ETIU	Observer, from 9:35 AM
Aden Barker	ETIU	Observer
Erin Stone	Point Global	Observer
Daniel Sutherland	Jackson McDonald	Observer, 10:25-10:45 AM
Edwin Ong	AEMO	Observer
Rebecca Petchey	AEMO	Observer
Grace Liu	AEMO	Observer
Oscar Carlberg	Alinta Energy	Observer
Kei Sukmadjaja	Western Power	Observer
Noel Schubert	Independent	Observer, from 10:00 AM
Dimitri Lorenzo	Bluewaters Energy	Observer, from 9:40 AM

Apologies	From	Comment
None		

Item	Subject	Action
1	Welcome	
	The Chair opened the meeting at 9:30 AM and welcomed members and observers to the 17 November 2020 MAC meeting.	
2	Meeting Apologies/Attendance	
	The Chair noted the attendance as listed above.	
3	Minutes of Meeting 2020_10_20	
	Draft minutes of the MAC meeting held on 20 October 2020 were circulated on 3 November 2020. The Chair noted that a revised draft showing some minor suggested corrections was distributed in the meeting papers.	
	The MAC accepted the revised minutes as a true and accurate record of the meeting.	
	Action: RCP Support to publish the minutes of the 20 October 2020 MAC meeting on the Rule Change Panel's (Panel) website as final.	RCP Support
4	Action Items	
	There were no outstanding action items.	
5	RC_2019_03: Method used for the assignment of Certified Reserve Capacity to Intermittent Generators – Pre-Rule Change Proposal	
	Dr Matt Shahnazari gave a presentation to the MAC on the ERA's Pre-Rule Change Proposal RC_2019_03. The Pre-Rule Change Proposal is available in the meeting papers and a copy of the ERA's presentation is available on the Panel's website.	
	Ms Laura Koziol made the following comments on the Pre-Rule Change Proposal:	
	<ul style="list-style-type: none"> • After considering the explanation provided by the ERA in Appendix 3 of the Pre-Rule Change Proposal, RCP Support continued to hold concerns that the proposed Relevant Level Methodology (RLM) might not be consistent with the Planning Criterion. RCP Support also held some concerns about the proposed scaling of observed demand for use in the RLM. RCP Support intended to discuss these issues further with the ERA and to assess them when the Rule Change Proposal was submitted. • RCP Support also understood that ETIU was undertaking work relating to the reliability standard, and intended to 	

Item	Subject	Action
	engage with ETIU to understand if that work would affect the Planning Criterion and the Rule Change Proposal.	
	<ul style="list-style-type: none"> The Pre-Rule Change Proposal proposed to assess the different technology components of a hybrid facility (e.g. solar and wind) separately for the purposes of the RLM. RCP Support held a concern that this approach may not be appropriate, and that it might increase costs and administrative burden for the affected Market Participants because it might require them to install additional meters and acquire additional expert's reports. 	
	RCP Support intended to further consider the appropriateness of the proposed approach. RCP Support sought advice from MAC members about whether its concerns about increased cost and administrative burden were valid or whether this was not a material issue for Market Participants.	
	The following points were discussed:	
	<ul style="list-style-type: none"> Dr Shahnazari noted that Ms Koziol had raised some concerns about different aspects of the proposed method but had not mentioned the reasoning behind those concerns. Dr Shahnazari requested that RCP Support provide him with this reasoning either in this discussion or through a separate vehicle, so that the ERA could assess RCP Support's concerns. 	
	The Chair considered that RCP Support provided its reasoning at the previous MAC meeting and questioned the value of repeating those comments given the limited time available for the meeting discussion. The Chair proposed to return to these issues at the end of the MAC discussion if time permitted, and if not to set up an additional meeting with the ERA.	
	<ul style="list-style-type: none"> Dr Adnan Hayat noted that the principle of basing the RLM on peak demand periods that typically occur during summer may not give a true sense of what Intermittent Generators, and particularly solar facilities, can produce during most of the year. 	
	<ul style="list-style-type: none"> Mr Timothy Edwards noted that he was able to provide direct feedback on the costs of obtaining independent experts' report for hybrid facilities, because Metro Power Company had recently completed a certification process involving the addition of storage to a small solar facility. 	
	Mr Edwards noted that for smaller-sized facilities the additional cost of a report for seven years instead of five was likely to be around \$1,000-\$2,000. The costs were	

Item	Subject	Action
	<p>likely to be much the same for a wind/solar hybrid facility regardless of whether the wind and solar components were treated separately or as a combined unit. Mr Edwards did not expect the additional costs would be material for facilities with capacities exceeding 10 MW.</p> <p>Mr Edwards also noted that costs would continue to be incurred until sufficient actual metering data became available for the facility.</p>	
	<ul style="list-style-type: none"> • Mr Edwards considered the ERA's proposal was very good and should be progressed with a sense of urgency. • In response to Dr Hayat's comments, Mr Edwards suggested that the proposed inclusion of a provision for a Distributed Energy Resources (DER) adjustment in peak periods may address the issue raised by Dr Hayat. • Mrs Jacinda Papps considered the Rule Change Proposal should be submitted as soon as possible and that the technical details should be prosecuted during the rule change process. Mrs Papps expressed concern that the MAC seemed to be trying to pre-determine a rule change outcome ahead of the rule change process. Mr Daniel Kurz and Mr Edwards agreed with the Mrs Papps' position. 	
	<p>The Chair agreed that the Rule Change Proposal should be submitted as soon as possible, but suggested that early identification and discussion of issues would help the proposal to be processed more quickly.</p>	
	<ul style="list-style-type: none"> • Mr Martin Maticka noted that that Dr Shahnazari and AEMO had spent a considerable amount of time working through AEMO's feedback on the Pre-Rule Change Proposal. • Mr Maticka questioned the relationship between a 4 hours in 10 years loss of load expectation and the Planning Criterion, and proposed to discuss the issue further with the ERA and RCP Support. • Mr Maticka noted that the output of some Intermittent Generators varied as the temperature increased, and considered that scaling observed demand without considering these temperature effects might overestimate the production of Intermittent Generators during high temperature periods. • Mr Maticka questioned whether the ERA had considered the impact of DER uptake on demand when conducting its sensitivity analyses. • Mr Maticka also sought the views of Dr Shahnazari and the MAC on the transparency of the proposed RLM compared 	

Item	Subject	Action
	<p>with that of the current RLM. Attendees did not provide a response to this request.</p>	
	<ul style="list-style-type: none"> Ms Wendy Ng asked whether a change to the Planning Criterion would affect the proposed RLM. Dr Shahnazari replied that, while there would be an impact, the proposed method was very robust and any changes to the Planning Criterion could easily be incorporated. 	
	<p>For example, if the Planning Criterion was in future to include a specific loss of load expectation (LOLE) target, e.g. 24 hours in 10 years, then the only change required would be to replace the proposed 4 hours in 10 years LOLE target in the RLM with a 24 hours in 10 years LOLE target.</p>	
	<p>Alternatively, if a decision was made to remove part (a) of the Planning Criterion, then the only change would be that the capacity outage probability table would be used to calculate the expected unserved energy in the system rather than LOLE.</p>	
	<p>The Chair asked whether the MAC continued to support the assignment of a High urgency rating to RC_2019_03.</p>	
	<ul style="list-style-type: none"> Mrs Papps noted that Alinta considered the Rule Change Proposal should have a High urgency rating for four reasons: <ul style="list-style-type: none"> the ERA's review showed the current method resulted in excessive errors, leading to Intermittent Generators' capacity being over and under-valued; the review showed increasing intermittent generation exacerbates these errors, so it was important that they were corrected before they became even worse and disrupted investment signals; if these errors were not corrected before the next Reserve Capacity Cycle, they would distort and could be 'baked into' the Network Access Quantity (NAQ) regime for years to come; and the previous basis for delay was the potential for interference with the NAQ reforms; however, it had become clear that there would not be any interference because the RLM would be an input in the NAQ model, as it was in the current Constrained Access Entitlement model. Mr Peter Huxtable, Mr Kurz, Mr Geoff Gaston, Mr Patrick Peake, Mr Edwards and Ms Zahra Jabiri all supported the assignment of a High urgency rating. 	

Item	Subject	Action
	<p>Dr Shahnazari confirmed that the ERA's governing body was scheduled to consider RC_2019_03 on 16 December 2020, and was likely to formally submit the Rule Change Proposal shortly afterwards.</p> <p>The Chair noted that even if the Rule Change Proposal was submitted in early December 2020 and there were no processing delays, the Final Rule Change Report would not be published until the end of April 2021. However, assuming the Panel agreed to the proposed High urgency rating, RCP Support would apply all the resources it could to complete the rule change process as soon as possible.</p> <p>The Chair advised that it was not intended to extend the first submission period for RC_2019_03 to account for the Christmas holiday period, due to the views expressed by stakeholders about the urgency of the Rule Change Proposal. However, stakeholders were free to seek an extension if they considered that one was necessary.</p> <p>Mr Peake asked whether the proposed amendments could be implemented by the Minister. Ms Kate Ryan replied that while the Minister had the necessary powers, EPWA was not prepared to take on this Rule Change Proposal because it did not have the internal bandwidth available to consider the proposed amendments in addition to its Energy Transformation Strategy (ETS) commitments. For this reason, the Rule Change Proposal would need to be progressed using the Standard Rule Change Process.</p>	<p>Action: AEMO and RCP Support to meet with the ERA to further discuss their issues relating to the Planning Criterion and Pre-Rule Change Proposal RC_2019_03.</p> <p>Action: RCP Support to meet with ETIU to discuss the potential impacts of the proposed ETS review of the reliability standard on Pre-Rule Change Proposal RC_2019_03.</p>
6	<p>Rule Change Governance – Consultation on Changes to the WEM Rules and Regulations</p> <p>Ms Ryan gave a presentation on the Minister's proposed changes to the governance of the Western Australian energy sector. A copy of EPWA's presentation is available on the Panel's website.</p> <p>Ms Ryan sought feedback on the proposed changes to the MAC and rule change processes, in the context of the Coordinator being the approver of some Rule Change Proposals; as well as</p>	

Item	Subject	Action
	<p>feedback on the proposed changes to market reviews, noting that the general intent was to allocate market and technical matters to the Coordinator, and economic cost and price matters to the ERA.</p> <p>The following points were discussed:</p> <ul style="list-style-type: none"> • Mrs Papps asked why Synergy was proposed to retain its special role on the MAC, suggesting that the reasons for this need had move on. Mrs Papps noted that if the reason related to Synergy's role for franchise customers, Alinta saw this as being adequately covered by the two proposed consumer representative roles. <p>Ms Ryan replied that EPWA had not been considering changes to Synergy's special role on the MAC because it was not within the scope of the governance changes. Ms Ryan noted that the upcoming changes to Synergy's role in the market might have impacts on Synergy's regulatory regime more broadly. Ms Ryan considered that Synergy's position on the MAC related to its role in the market, as opposed to its role for franchise customers; and while the two roles were related, the position was not explicitly that of a customer representative.</p> <p>Mrs Papps noted that the ETS changes affected Synergy's broader role in the market, for example as the default supplier of Essential System Services. Mrs Papps considered the question fell within the scope of the proposed governance changes as the changes dealt with the composition of the MAC more broadly, and suggested that Synergy should have a role on the MAC as one of the six Market Participant representatives, rather than having a dedicated position.</p> <p>Ms Ryan replied that she saw the logic of Mrs Papps' comments, although this was not something that EPWA had considered.</p> <ul style="list-style-type: none"> • Mrs Papps questioned whether the proposed consumer representatives would be sourced from EPWA or external organisations. Ms Ryan replied that the positions were proposed to be Ministerial appointments and she would not want to suggest how the Minister may or may not make those appointments, except to say that EPWA's intent was to enable and empower more organisations across the sector to play roles of this type over time, through the work being done with consumer advocacy in the sector. While EPWA would like to see external parties on the MAC, it was 	

Item	Subject	Action
	<p>uncertain whether this could happen from the start of the new governance arrangements.</p>	
	<ul style="list-style-type: none"> • Mrs Papps asked whether external consumer representatives would be compensated for their participation in the MAC. Ms Ryan replied that some funding was available from the Government for consumer advocacy and that EPWA was looking at the compensation of external consumer representatives. • Mrs Papps asked why the governance changes proposed to move away from a balanced representation of generators and retailers on the MAC. Ms Dora Guzeleva noted that the proposed changes to clauses 2.3.5(a) and 2.3.5(d) were needed because the terms Market Generator and Market Customer were being removed from the Market Rules. 	
	<p>Mr Huxtable noted that the Coordinator would be required under clause 2.3.5A to use its reasonable endeavours to ensure equal representation of Market Generators and Market Customers on the MAC.</p>	
	<ul style="list-style-type: none"> • In response to a question from Mrs Papps, Ms Ryan confirmed that the changes would not affect the appointment terms of the current MAC members, although EPWA intended to review the MAC Constitution and associated documents before 1 July 2021. • Mr Peake noted that the ERA had regularly noted that the dominance of Synergy limited competition and the efficiency of the market, and questioned whether the Coordinator would be offering ‘frank and fearless advice’ for Government to question its policies. Ms Ryan replied that EPWA already provided frank and fearless advice to the Government, noting that it was the role of the public sector to provide advice to the Government. EPWA needed to work within the policies of the day, but that did not mean that it could not provide advice that challenged the policies of the day. • Mr Dean Sharafi asked if EPWA had a definition of ‘consensus’. Ms Ryan replied that EPWA did not intend to define consensus and the term was intended to have its natural meaning. However, Ms Ryan noted that EPWA had provided explicitly in the rules for dissenting views to be captured and recorded, and that consensus did not necessarily mean one hundred percent agreement. • Mrs Papps acknowledged that governance arrangements for the Whole of System Plan (WOSP) were not within the scope of the presentation, but asked why the development 	

Item	Subject	Action
	<p>of the WOSP and the development of the Electricity Statement of Opportunities (ESOO) and Gas Statement of Opportunities (GSOO) were being treated differently given they were similar types of processes.</p> <p>Ms Ryan considered this was a good question and noted that EPWA intended to begin a second stage of work on governance in the new year.</p> <p>The current set of proposed governance changes was focussed on managing the ongoing evolution of the market after the wind up of the Energy Transformation Taskforce in 2021. The second stage would review broader governance aspects of the market, including matters that might impact on the Electricity Industry Act.</p> <p>This second stage would provide an opportunity to consider the WOSP, ESoo and GSOO processes (which did have some overlap) and the roles of EPWA and the AEMO in those processes.</p> <p>Ms Guzeleva added that the ESoo needed to be conducted on an annual basis because it provided input to the Reserve Capacity Mechanism, which operated on an annual basis. EPWA had not considered it appropriate for the WOSP to be conducted annually.</p>	
	<ul style="list-style-type: none"> • Mr Huxtable asked whether there was a definition of 'independent' for the MAC Chair, or whether this was up to the Minister. Ms Guzeleva noted that the independence requirements for the independent Chair were explicitly specified in proposed clause 2.3.8A. • Mr Sharafi noted that the transfer of responsibilities could require some IT system changes, albeit small in nature. Ms Ryan replied that EPWA had commenced discussions with AEMO on the implementation of the changes and specifically around the impacts on market fees, and would work through the relevant issues with Mr Sharafi and AEMO. • Mr Peake considered that it was very good to capture the experience and knowledge built up through the ETS and to recognise that the reform process will continue long term. • Mr Sharafi asked whether a level of resourcing would be required from AEMO to support the Coordinator with technical reviews. Ms Guzeleva replied that EPWA had added the provision of support for the relevant reviews to the list of AEMO's functions, so that AEMO would be able to recover its costs for these activities. 	

Item	Subject	Action
	<ul style="list-style-type: none"> Mr Kurz thanked Ms Ryan for the overview and noted that overall (ahead of submissions) he saw the proposals as positive. Mr Peake asked whether customers would pick up the full cost of the proposed expansion or whether the Government take on some of the additional cost. Ms Ryan agreed with the Chair that no changes were intended to the funding arrangements, except that EPWA would charge the fees instead of the Rule Change Panel. <p>Ms Ryan added that the intent of the proposed changes was to consolidate expertise working on market development and rule changes in the one organisation, and by doing so achieve some efficiencies. At present, and for the foreseeable future, the intent was to use mostly Government funded resources for Government-led rule changes, which for the short to medium term would cover matters like the implementation of the DER roadmap actions and the integration of DER into the WEM.</p> <p>However, EPWA hoped to build some efficiencies through economies of scale and scope over time, which should ease pressure on market fees.</p> <p>The Chair noted that the deadline for submissions on the proposed governance changes was 11 December 2020.</p>	

10 General Business

Minutes of 20 July 2020 MAC workshop for RC_2019_01

The Chair noted that minutes of the MAC workshop held on 20 July 2020 for Rule Change Proposal: The Relevant Demand calculation (RC_2019_01) were circulated to attendees for review. Attendees had provided no comments on the minutes, which would be published on the Panel's website later that afternoon.

Next meeting

The Chair noted that he was likely to cancel the next scheduled MAC meeting on 1 December 2020, as the agenda currently contained no substantive items. The Chair asked MAC members to let him know if they considered the 1 December 2020 meeting should proceed. Mrs Papps and Mr Kurz supported cancelling the meeting if no substantive agenda items were identified.

The meeting closed at 11:15 AM

Agenda Item 4: MAC Action Items

Meeting 2021_02_02

Shaded	Shaded action items are actions that have been completed since the last Market Advisory Committee (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
23/2020	RCP Support to publish the minutes of the 20 October 2020 MAC meeting on the Rule Change Panel's (Panel) website as final.	RCP Support	2020_11_17	Closed The minutes were published on the Panel's website on 17 November 2020.
24/2020	AEMO and RCP Support to meet with the Economic Regulation Authority (ERA) to further discuss their issues relating to the Planning Criterion and Pre-Rule Change Proposal: Method used for the assignment of Certified Reserve Capacity to Intermittent Generators (RC_2019_03).	RCP Support, AEMO, ERA	2020_11_17	Closed AEMO, RCP Support and the ERA met to discuss the Pre-Rule Change Proposal for RC_2019_03 on 30 November 2020 and 2 December 2020.

Item	Action	Responsibility	Meeting Arising	Status
25/2020	RCP Support to meet with the Energy Transformation Implementation Unit (ETIU) to discuss the potential impacts of the proposed Energy Transformation Strategy (ETS) review of the reliability standard on Pre-Rule Change Proposal RC_2019_03.	RCP Support, ETIU	2020_11_17	<p>Closed</p> <p>RCP Support and ETIU discussed the review of the reliability standard under the ETS on 20 November 2020. ETIU advised that it is considering changes to the Planning Criterion under the ETS, but that this would not be completed in time for the Panel's consideration of RC_2019_03, so the Panel should process the proposal on the basis of the current Planning Criterion.</p>

Agenda Item 5: MAC Market Rules Issues List Update

Meeting 2021_02_02

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

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

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

Recommendation:

RCP Support recommends that the MAC:

- note that there have been no updates to the Issues List since the MAC meeting on 20 October 2020;
- provide any further updates to existing issues; and
- indicate whether there are any new issues to be raised.

The MAC has agreed that it would like to commence a review in February 2021 of the Issues List against the Energy Transformation Strategy (ETS).

However, RCP Support has not yet commenced this review because it has instead focused its resources on processing RC 2014_03 (Administrative Improvements to the Outage Process) and RC 2019_03 (Method used for the assignment of Certified Reserve Capacity to Intermittent Generators). Resources permitting, RCP Support will commence this review and present recommendations at the 16 March 2021 MAC meeting regarding which issues have been addressed by the ETS and which remain outstanding.

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

Table 1 – Potential Rule Change Proposals

Id	Submitter/Date	Issue	Urgency and Status
45	AEMO May 2018	<p>Transfer of responsibility for setting document retention requirements</p> <p>AEMO suggested that responsibility for setting document retention requirements (clauses 10.1.1 and 10.1.2 of the Market Rules) should move from AEMO to the ERA. AEMO considers that it is not the best entity to hold this responsibility as it no longer maintains the broader market development and compliance functions of the IMO.</p>	<p>Panel rating: Low</p> <p>MAC ratings: Low</p> <p>Status:</p> <p>The Energy Transformation Implementation Unit (ETIU) will consider who is to be responsible for setting document retention requirements as part of the Tranche 5 Amending Rules for the ETS and will consult on these matters in early 2021.</p>
46	AEMO May 2018	<p>Transfer of responsibility for setting confidentiality statuses</p> <p>AEMO suggested that responsibility for setting confidentiality statuses (clauses 10.2.1 and 10.2.3 of the Market Rules) should move from AEMO to the ERA. AEMO considers that it is not the best entity to hold this responsibility as it no longer maintains the broader market development and compliance functions of the IMO.</p>	<p>Panel rating: Low</p> <p>MAC ratings: Low</p> <p>Status:</p> <p>ETIU will consider who is to be responsible for setting confidentiality statuses as part of the Tranche 5 Amending Rules for the ETS and will consult on these matters in early 2021.</p>
47	AEMO September 2018	<p>Market Procedure for conducting the Long Term PASA (clause 4.5.14)</p> <p>The scope of this procedure currently includes describing the process that the ERA must follow in conducting the five-yearly review of the Planning Criterion and demand forecasting process.</p> <p>AEMO considers that its Market Procedure should not cover the ERA's review, and the ERA should be able to independently scope the</p>	<p>Panel rating: Low</p> <p>MAC ratings: Low</p> <p>Status:</p> <p>This issue has not been progressed.</p>

Table 1 – Potential Rule Change Proposals

Id	Submitter/Date	Issue	Urgency and Status
		review. As such, AEMO recommends removing this requirement from the head of power in clause 4.5.14 of the Market Rules.	
55	MAC April 2019	<p>Conflict between Relevant Level Methodology and the early and conditional certification of Intermittent Generators</p> <p>There is a conflict between the current and proposed Relevant Level Methodologies and the early and conditional certification of new Intermittent Generators, because the methodologies depend on information that is not available before the normal certification time for a Reserve Capacity Cycle.</p>	<p>Panel rating: TBD</p> <p>MAC ratings: Low</p> <p>Status:</p> <p>On 15 August 2019, Mr Maticka advised RCP Support that AEMO has revised its position and is now of the view that there is an opportunity as part of RC_2019_03 to remove Clause 4.28C.7 that relates to Early Certification of Reserve Capacity (CRC).</p> <p>The draft proposal states that AEMO “must reject the early certification application if it has cause to believe that it cannot reliably set the Early CRC...”; otherwise, AEMO must set Early CRC within 90 days of receiving the application. It appears that it is almost certain that AEMO cannot reliably set the Early CRC for an early certification application if an intermittent Facility nominates to use clause 4.11.2(b) for the assessment. This is because:</p> <ul style="list-style-type: none"> An early certification application may be submitted at any time before 1 January of Year 1 of the Reserve Capacity Cycle to which the application relates [clause 4.28C.2].

Table 1 – Potential Rule Change Proposals

Id	Submitter/Date	Issue	Urgency and Status
			<ul style="list-style-type: none"> • This means that when AEMO receives an application under 4.11.2(b), it can't calculate a reliable Relevant Level value for the Facility, as it is not certain: <ul style="list-style-type: none"> ○ which Scheduled Generators, DSPs, and Non-Scheduled Generators would apply for certification; or ○ what level of CRC would be assigned to these Scheduled Generators and DSPs. <p>AEMO also stated that:</p> <ul style="list-style-type: none"> • Neither a complete set of system demand and Facility actual meter data is available nor are the expected capacity estimates of new Candidate Facilities. • It almost implies that in fact only Scheduled Generators can apply and be certified for Early Certification. Noting an application of this nature has not been provided in the past years, AEMO suggests removal of this clause completely. <p>The MAC discussed this issue at its meeting on 3 September 2019 where it was noted that the issue could be addressed as a standalone Rule Change Proposal or as part RC_2019_03. The ERA is considering whether it wants to address</p>

Table 1 – Potential Rule Change Proposals

Id	Submitter/Date	Issue	Urgency and Status
			<p>the issue as part of RC_2019_03, and if not, then RCP Support will bring the issue back to the MAC for further discussion.</p> <p>The Market Rules governing the early and conditional certification of intermittent generation may be addressed by the rule changes that ETIU is developing to assign Capacity Credits under the constrained network access model. The ERA will liaise with ETIU as it develops these rule changes. The ERA intends to base RC_2019_03 on the revised Market Rules developed by ETIU and approved by the Minister.</p>
56	Perth Energy July 2019	<p>Issues with Reserve Capacity Testing</p> <ul style="list-style-type: none"> Market Generators that fail a Reserve Capacity Test may prefer to accept a small shortfall in a test (and a corresponding reduction in their Capacity Credits) than to run a second test. There is a discrepancy between the number of Trading Intervals for self-testing vs. AEMO testing. There is ambiguity in the timing requirements for a second test when the relevant generator is on an outage. There is ambiguity on the number of Capacity Credits that AEMO is to assign when certain test results occur. 	<p>Panel rating: TBD</p> <p>MAC ratings: TBD</p> <p>Status:</p> <p>Perth Energy has indicated that it will develop a Pre-Rule Change Proposal for consideration by the MAC.</p>

Notes:

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

Table 2 – Broader Issues

Id	Submitter/Date	Issue	Urgency and Status
1	Shane Cremin November 2017	<p>IRCR calculations and capacity allocation</p> <p>There is a need to look at how IRCR and the annual capacity requirement are calculated (i.e. not just the peak intervals in summer) along with recognising behind-the-meter solar plus storage. The incentive should be for retailers (or third-party providers) to reduce their dependence on grid supply during peak intervals, which will also better reflect the requirement for conventional ‘reserve capacity’ and reduce the cost per kWh to consumers of that conventional ‘reserve capacity’.</p>	To be considered in the preliminary review of the Reserve Capacity Mechanism.
2	Shane Cremin November 2017	Allocation of market costs – who bears Market Fees and who pays for grid support services with less grid generation and consumption?	<p>To be considered in the preliminary reviews of behind-the-meter issues and the basis for allocation of Market Fees.</p> <p>The WA Government published the DER Roadmap on 5 April 2020, but the MAC agreed to keep this issue on the list until further information is available on how Energy Policy WA (EPWA) intends to develop and implement the actions from the DER Roadmap.</p>
3	Shane Cremin November 2017	Penalties for outages.	To be considered in the preliminary review of the Reserve Capacity Mechanism.
4	Shane Cremin November 2017	Incentives for maintaining appropriate generation mix.	To be considered in the preliminary review of the Reserve Capacity Mechanism.

Table 2 – Broader Issues

Id	Submitter/Date	Issue	Urgency and Status
9	Community Electricity November 2017	Improvement of AEMO forecasts of System Load; real-time and day-ahead	To be considered in the preliminary review of forecast quality.
16	Bluewaters November 2017	<p>Behind the Meter (BTM) generation is treated as reduction in electricity demand rather than actual generation. Hence, the BTM generators are not paying their fair share of the network costs, Market Fees and ancillary services charges.</p> <p>Therefore, the non-BTM Market Participants are subsidizing the BTM generation in the WEM. Subsidy does not promote efficient economic outcome.</p> <p>Rapid growth of BTM generation will only exacerbate this inefficiency if not promptly addressed.</p> <p>Bluewaters recommends changes to the Market Rules to require BTM generators to pay their fair share of the network costs, Market Fees and ancillary services charges.</p> <p>This is an example of a regulatory arrangement becoming obsolete due to the emergence of new technologies. Regulatory design needs to keep up with changes in the industry landscape (including technological change) to ensure that the WEM continues to meet its objectives.</p> <p>If this BTM issue is not promptly addressed, there will be distortion in investment signals, which will lead to an inappropriate generation facility mix in the WEM, hence compromising power system security and in turn not promoting the Wholesale Market Objectives.</p>	<p>To be considered in the preliminary reviews of behind-the-meter issues and the basis for allocation of Market Fees.</p> <p>The WA Government published the DER Roadmap on 5 April 2020, but the MAC agreed to keep this issue on the list until further information is available on how EPWA intends to develop and implement the actions from the DER Roadmap.</p>

Table 2 – Broader Issues

Id	Submitter/Date	Issue	Urgency and Status
23	Bluewaters November 2017	<p>Allocation of Market Fees on a 50/50 basis between generators and retailers may be overly simplistic and not consider the impacts on economic efficiency.</p> <p>In particular, the costs associated with an electricity market reform program should be recovered from entities based on the benefit they receive from the reform. This is expected to increase the visibility of (and therefore incentivise) prudence and accountability when it comes to deciding the need and scope of the reform.</p> <p>Recommendations: to review the Market Fees structure including the cost recovery mechanism for a reform program.</p> <p>The cost saving from improved economic efficiency can be passed on to the end consumers, hence promoting the Wholesale Market Objectives.</p>	To be considered in the preliminary review of the basis for allocation of Market Fees.
30	Synergy November 2017	<p>Reserve Capacity Mechanism</p> <p>Synergy would like to propose a review of Market Rules related to reserve capacity requirements and reserve capacity capability criteria to ensure alignment and consistency in determination of certain criteria. For instance:</p> <ul style="list-style-type: none"> • assessment of reserve capacity requirement criteria, reserve capacity capability and reserve capacity obligations; • IRCR assessment; • Relevant Demand determination; • determination of NTDL status; • Relevant Level determination; and 	To be considered in the preliminary review of the Reserve Capacity Mechanism.

Table 2 – Broader Issues

Id	Submitter/Date	Issue	Urgency and Status
		<ul style="list-style-type: none"> assessment of thermal generation capacity. <p>The review will support Wholesale Market Objectives (a) and (d).</p>	
35	ERM Power November 2017	<p>BTM generation and apportionment of Market Fees, ancillary services, etc.</p> <p>The amount of solar PV generation on the system is increasing every year, to the point where solar PV generation is the single biggest unit of generation on the SWIS. This category of generation has a significant impact on the system and we have seen this in terms of the daytime trough that is observed on the SWIS when the sun is shining. The issue is that generators that are on are moving around to meet the needs of this generation facility but this generation facility, which could impact system stability, does not pay its fair share of the costs of maintaining the system in a stable manner. That is, they are not the generators that receive its fair apportionment of Market Fees and pay any ancillary service costs but yet they have absolute freedom to generate into the SWIS when the fuel source is available. There needs to be equity in this equation.</p>	<p>To be considered in the preliminary reviews of behind-the-meter issues and the basis for allocation of Market Fees.</p> <p>The MAC recognised that the Minister has commenced work on BTM issues and flagged that issue 35 should be considered as part of the ETS.</p> <p>The WA Government published the DER Roadmap on 5 April 2020, but the MAC agreed to keep this issue on the list until further information is available on how EPWA intends to develop and implement the actions from the DER Roadmap.</p>
39	Alinta Energy November 2017	<p>Commissioning Test Process</p> <p>The commissioning process within the Market Rules and PSOP works well for known events (i.e. the advance timings of tests). However, the Market Rules and PSOP do not work for close to real time events. There is limited flexibility in the Market Rules and PSOP to deal with the practical and operational realities of commissioning facilities.</p> <p>The Market Rules and PSOP require System Management to approve a Commissioning Test Plan or a revised Commissioning Test Plan by</p>	<p>To be considered in the preliminary review of the Commissioning Tests.</p>

Table 2 – Broader Issues

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

Wholesale Market Objective Assessment:

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

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

Table 2 – Broader Issues

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

Notes:

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

Table 3 – Preliminary Reviews

Review	Status
(1) Behind-the-meter issues	<p>Issues: 2, 16, 35.</p> <p>Status: Preliminary discussion is not yet scheduled.</p> <p>EPWA is working on its DER Roadmap, which will address behind-the-meter issues (amongst other things). A preliminary discussion of behind-the-meter issues is to be deferred until the DER Roadmap is published and then the MAC will consider whether a discussion is still required.</p> <p>The WA Government published the DER Roadmap on 5 April 2020, but the MAC agreed to keep this review on the list until further information is available on how EPWA intends to develop and implement the actions from the DER Roadmap.</p>
(2) Forecast quality	<p>Issues: 9.</p> <p>Status: Preliminary discussion is not yet scheduled.</p>
(3) Commissioning Tests	<p>Issues: 39.</p> <p>Status: Preliminary discussion is not yet scheduled.</p>
(4) The basis of allocation of Market Fees	<p>Issues: 2, 16, 23 and 35.</p> <p>Status: Preliminary discussion is not yet scheduled.</p>
(5) The Reserve Capacity Mechanism (excluding the pricing mechanism)	<p>Issues: 1, 3, 4, and 30.</p> <p>Status: Preliminary discussion is not yet scheduled. The preliminary discussion should address outstanding customer-side issues.</p>

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
7	Community Electricity November 2017	Improved definition of the quantity of LFAS (a) required and (b) dispatched.	On hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020), with potential input from work on RC_2017_02: Implementation of 30-Minute Balancing Gate Closure.
10	AEMO November 2017	<p>Review of participant and facility classes to address current and looming issues, such as:</p> <ul style="list-style-type: none"> • incorporation of storage facilities; • distinction between non-scheduled and semi-scheduled generating units; • reconsideration of potential for Dispatchable Loads in the future (which were proposed for removal in RC_2014_06); • whether to retain Interruptible Loads or to move to an aggregated facility approach (like Demand Side Programmes); and • whether to retain Intermittent Loads as a registration construct or to convert to a settlement construct. <p>Would support new entry, competition and market efficiency; particularly supporting the achievement of Wholesale Market Objectives (a) and (b).</p>	<p>On hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020).</p> <p>Treatment of storage facilities was considered under the preliminary review of the treatment of storage facilities in the market.</p>
11	AEMO November 2017	<p>Whole-of-system planning oversight:</p> <p>As explained in AEMO’s submission to the ERA’s review of the WEM, AEMO considers the necessity of the production of an annual, independent Integrated Grid Plan to identify emerging issues and opportunities for investment at different</p>	<p>This issue was initially flagged for consideration as part of the preliminary review of roles in the market.</p> <p>However, ETIU has advised that the issue will be covered as part of the ETS, so the issue has been put on hold until the regulatory changes for the Foundation</p>

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<p>locations in the network to support power system security and reliability. This role would support AEMO's responsibility for the maintenance of power system security and will be increasingly important as network congestion increases and the characteristics of the power system evolve in the course of transition to a predominantly non-synchronous future grid with distributed energy resources, highlighting new requirements (e.g. planning for credible contingency events, inertia, and fast frequency response).</p> <p>This function would support the achievement of power system security and reliability, in line with Wholesale Market Objective (a).</p>	<p>Regulatory Frameworks workstream are known (mid-2020).</p> <p>ETIU is currently developing a Whole of System Plan (WOSP) to be delivered to Government and published in mid-2020. ETIU has indicated that the intent is to develop and publish updated Whole of System Plans on an ongoing, regular basis. The MAC agreed to keep issue 11 open pending publication of the WOSP.</p>
12	AEMO November 2017	<p>Review of institutional responsibilities in the Market Rules.</p> <p>Following the major changes to institutional arrangements made by the Electricity Market Review, a secondary review is required to ensure that tasks remain with the right organisations, e.g. responsibility for setting confidentiality status (clause 10.2.1), document retention (clause 10.1.1), updating the contents of the market surveillance data catalogue (clause 2.16.2), content of the market procedure under clause 4.5.14, order of precedence of market documents (clause 1.5.2). This will promote efficiency in market administration, supporting Wholesale Market Objectives (a) and (d).</p>	<p>Potential changes to responsibilities for setting document retention requirements and confidentiality statuses have been listed as Potential Rule Change Proposals (issues 45 and 46). Potential changes to clause 4.5.14 have also been listed as a Potential Rule Change Proposal (issue 47).</p> <p>EPWA has advised that the remaining issues will be covered as part of the ETS, so the remaining issues have been put on hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020).</p>

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
14/36	Bluewaters and ERM Power November 2017	<p>Capacity Refund Arrangements:</p> <p>The current capacity refund arrangement is overly punitive as Market Participants face excessive capacity refund exposure. This refund exposure is well more than what is necessary to incentivise the Market Participants to meet their obligations for making capacity available. Practical impacts of such excessive refund exposure include:</p> <ul style="list-style-type: none"> • compromising the business viability of some capacity providers – the resulting business interruption can compromise reliability and security of the power system in the SWIS; and • excessive insurance premiums and cost for meeting prudential support requirements. <p>Bluewaters recommended imposing seasonal, monthly and/or daily caps on the capacity refund. Bluewaters considered that reviewing capacity refund arrangements and reducing the excessive refund exposure is likely to promote the Wholesale Market Objectives by minimising:</p> <ul style="list-style-type: none"> • unnecessary business interruption to capacity providers and in turn minimising disruption to supply availability; which is expected to promote power system reliability and security; and • unnecessary excessive insurance premium and prudential support costs, the saving of which can be passed on to consumers. 	<p>On 29 May 2018, the MAC agreed to place this issue on hold for 12 months (until June 2019) to allow time for historical data on dynamic refund rates to accumulate. On 29 July 2019, the MAC agreed that this issue has a low priority and should remain on hold for another 12 months.</p>

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
17	Bluewaters November 2017	<p>Under clause 3.21.7 of the Market Rules, a Market Participant is not allowed to retrospectively log a Forced Outage after the 15-day deadline; even if the Market Participant is subsequently found to be in breach of the Market Rules for not logging the Forced Outage on time.</p> <p>This can result in under reporting of Forced Outages, and as a consequence, use of incorrect information used in WEM settlements.</p> <p>Bluewaters recommend a rule change to enable Market Participants to retrospectively log a Forced Outage after the 15-day deadline. If a Market Participant is found to be in breach of the Market Rules by not logging the Forced Outage by the deadline, it should be required to log the outage.</p> <p>Accurately reporting outages will enable the WEM to function as intended and will help meet the Wholesale Market Objectives.</p>	On hold pending a final decision on RC_2014_03: Administrative Improvements to the Outage Process.
18	Bluewaters November 2017	<p>The Spinning Reserve procurement process does not allow Market Participants to respond to the draft margin values determination by altering its Spinning Reserve offer.</p> <p>Bluewaters recommended amending the Market Rules to allow Market Participants to respond to the draft margin values determination by altering its Spinning Reserve offer.</p> <p>Allowing a Market Participant to respond to the draft margin values determination, can serve as a price signal to enable a price discovery process for Spinning Reserve capacity. This</p>	On hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020).

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		is expected to lead to a more efficient economic outcome and in turn promote the Wholesale Market Objectives.	
19	Bluewaters November 2017	<p>The Spinning Reserve margin values evaluation process is deficient for the following reasons:</p> <ul style="list-style-type: none"> • shortcomings in the process for reviewing assumptions; • inability to shape load profile; • lack of transparency: <ul style="list-style-type: none"> (a) modelling was a “black box”; (b) confidential information limits stakeholders’ ability to query the results; and • lack to retrospective evaluation of spinning reserve margin values. <p>As a result, the margin values have been volatile, potentially inaccurate and not verifiable.</p> <p>Recommendation: conduct a review on the margin values evaluation process and propose rule changes to address any identified deficiencies.</p> <p>Addressing the deficiencies in the margin values evaluation process can promote the Wholesale Market Objectives by enhancing economic efficiency in the WEM. This can be achieved through:</p> <ul style="list-style-type: none"> • promoting transparency – better informed Market Participants would be able to better respond to Spinning Reserve requirement in the WEM; and 	<p>On hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020).</p> <p>Also, AEMO and the ERA to consider whether any options exist to improve transparency of the current margin values process.</p>

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<ul style="list-style-type: none"> allowing a better-informed margin values determination process, which is likely to give a more accurately priced margin values to promote an efficient economic outcome. 	
22	Bluewaters November 2017	<p>Prudential arrangement design issue: clause 2.37.2 of the Market Rules enables AEMO to review and revise a Market Participant's Credit Limit at any time. It is expected that AEMO will review and increase Credit Limit of a Market Participant if AEMO considers its credit exposure has increased (for example, due to an extended plant outage event).</p> <p>In response to the increase in its credit exposure, clause 2.40.1 of the Market Rules and section 5.2 of the Prudential Procedure allow the Market Participant to make a voluntary prepayment to reduce its Outstanding Amount to a level below its Trading Limit (87% of the Credit Limit).</p> <p>Under the current Market Rules and Prudential Procedure, AEMO can increase the Market Participant's Credit Limit (hence increasing its prudential support requirement) despite that a prepayment has already been paid (it is understood that this is AEMO's current practice).</p> <p>The prepayment would have already served as an effective means to reduce the Market Participant's credit exposure to an acceptable level. Increasing the Credit Limit in addition to this prepayment would be an unnecessary duplication of prudential requirement in the WEM.</p>	<p>This issue was on hold pending completion of AEMO's 'Reduction of Prudential Exposure 2' project, which is now complete.</p> <p>AEMO noted that Credit Support and prepayment are important, but different prudential instruments:</p> <ul style="list-style-type: none"> Credit Support must be provided to the level of the determined Credit Limit. Credit Support is a secured instrument and is held for use in a suspension or default event. A Market Participant's Trading Limit is set at 87% of the Credit Support provided. Prepayments are voluntary and may be provided by a Market Participant at any time. They are applied to reduce the Market Participant's Outstanding Amount, and thereby increasing its Trading Margin; and are applied to amounts payable by the Market Participant to AEMO for the next Settlement Statement. Prepayments are exhausted or consumed as a Market Participant receives STEM and NSTEM payable invoices. The direction is irrevocable. <p>AEMO agrees that it is possible that a Market Participant could be in a situation where their Credit Limit is increased, requiring additional Credit Support, when they already have a prepayment balance vested with AEMO.</p>

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<p>This unnecessary duplication is likely to give rise to higher-than-necessary prudential cost burden in the WEM; which creates economic inefficiency that is ultimately passed on the end consumers.</p> <p>Recommendation: amend the Market Rules and/or procedures to eliminate the duplication of prudential burden on Market Participants.</p> <p>The resulting saving from eliminating this unnecessary prudential burden can be passed on to end consumers. This promotes economic efficiency and therefore the Wholesale Market Objectives.</p>	<p>If this were to occur, it would be economically inefficient. AEMO expects that prepayments would be exhausted over time as a Market Participant receives STEM and NSTEM payable invoices. However, there may be circumstances where a prepayment is not exhausted in a timely fashion.</p> <p>An earlier version of the Prudential Requirements Market Procedure (v5.0) suggested that there may be a 'reconciliation of accounts' and that a prepayment may be returned. This was removed in APEC_2019_03 when this section was updated to reflect new prudential instrument templates.</p> <p>To address this potential economic inefficiency, the Prepayment Direction and/or Market Procedure could be changed to allow for an on request 'reconciliation of accounts' and return of a Market Participant's prepayment if this does not create a Trading Margin breach. An initial investigation would need to occur if a Rule Change is needed or if this could be done in a Market Procedure.</p>
27/54	<p>Kleenheat November 2017 MAC August 2018</p>	<p>Review what should constitute a Protected Provision of the Market Rules, to provide greater clarity over the role of the Minister for Energy.</p> <p>A review of the Protected Provisions in the Market Rules is required to identify any that they no longer need to be Protected Provisions. This is because shifting the rule change function to the Panel has removed some of the potential</p>	<p>On hold pending the outcome of an EPWA review of the current Protected Provisions in the Market Rules, with timing dependent on ETS.</p> <p>EPWA and RCP Support are to develop principles for identifying which rules should be Protected Provisions for presentation and discussion by the MAC.</p>

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		conflicts of interest that led to the original classification of some Protected Provisions.	
28	Kleenheat November 2017	Appropriate rule changes to allow for battery storage. Consultation to decide how the batteries will be treated and classified as generators or not, whether batteries can apply for Capacity Credits and the availability status when the batteries are charging.	On hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020).
33	ERM Power November 2017	<p>Logging of Forced Outages</p> <p>The market systems do not currently allow Forced Outages to be amended once entered. This can have the distortionary effect of participants not logging an Outage until it has absolute certainty that the Forced Outage is correct, hence participants could take up to 15 days to submit its Forced Outages.</p> <p>If a participant could cancel or amend its Forced Outage information, it will likely provide more accurate and transparent signals to the market of what capacity is really available to the system. This should also assist System Management in generation planning for the system.</p>	On hold pending a final decision on RC_2014_03: Administrative Improvements to the Outage Process.
42	ERA November 2017	<p>Ancillary Services approvals process</p> <p>Clause 3.11.6 of the Market Rules requires System Management to submit the Ancillary Services Requirements in a report to the ERA for audit and approval by 1 June each year, and System Management must publish the report by 1 July each year. The ERA conducted this process for the</p>	On hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020).

Table 4 – Issues on Hold

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

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		more rigour is added to the process, provide economic benefits (Wholesale Market Objectives (a) and (d)).	
49	MAC November 2018	Should the method used to calculate constrained off compensation be amended to better reflect the actual costs incurred by Market Generators?	The Amending Rules from RC_2018_07 commenced on 1 July 2019. The MAC agreed to keep this issue on hold until 1 July 2020 to see if the issue requires further consideration.
51	MAC November 2018	There is a need to provide Market Customers with timely advance notice of their upcoming constraint payment liabilities.	The MAC agreed to place this issue on hold pending implementation of AEMO's proposed changes to the Outstanding Amount calculation in 2019.
53	MAC August 2018	<p>MAC members have identified the following issues with the provisions relating to generator models that were Gazetted by the Minister on 30 June 2017 in the <i>Wholesale Electricity Market Rules Amending Rules 2017 (No. 3)</i>:</p> <ul style="list-style-type: none"> • The provisions allow for System Management, where it deems that the performance of a Generator does not conform to its models, to request updated models from Western Power and constrain the output of the Generator until these were provided, placing the Generator on a new type of Forced Outage and making it liable for Capacity Cost Refunds. • Western Power is only required to comply with a request from System Management for updated models “as soon as reasonably practicable”, leaving a Market Generator potentially subject to a Forced Outage for an extended period with no control over the situation. 	<p>On hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020).</p> <p>AEMO agreed to provide an update to the MAC on the proposed arrangements for generator performance models proposed as part of the ETS.</p>

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<ul style="list-style-type: none"> The generator model information is assigned a confidentiality status of System Management Confidential, so that System Management is not permitted under the Market Rules to tell the Network Operator what model information it needs or explain the details of its concerns to the Market Generator. 	
57	MAC October 2019	<p>Identification of services subject to outage scheduling</p> <p>The Market Rules do not clearly define the ‘services’ that should be subject to outage scheduling (e.g. what services are provided by different items of network equipment, Intermittent Load facilities, dual-fuel Scheduled Generators, etc), and how the ‘availability’ of these services should be measured for each Outage Facility. This can lead to ambiguity about what constitutes an Outage for certain Outage Facilities.</p> <p>Additionally, if a Facility or item of network equipment can provide multiple services that require outage scheduling, then this concept should be clearly reflected in the Market Rules.</p> <p>The Amending Rules for RC_2013_15 clarified that a Scheduled Generator or Non-Scheduled Generator that is subject to an Ancillary Service Contract is required to schedule outages in respect of both sent out energy and each contracted Ancillary Service but did not seek to address the broader issue.</p> <p>(See section 7.2.2.5 of the Final Rule Change Report for RC_2013_15.)</p>	The MAC agreed that this issue should be placed on hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020).

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
58	MAC October 2019	<p>Outage scheduling for dual-fuel Scheduled Generators</p> <p>'0 MW' outages are currently used to notify System Management when a dual-fuel Scheduled Generator is unable to operate on one of its nominated fuels. There is no explicit obligation in the Market Rules or the Power System Operation Procedure: Facility Outages to request/report outages that limit the ability of a Scheduled Generator to operate using one of its fuels. In terms of the provision of sent out energy (the service used to determine Capacity Cost Refunds), it is questionable whether this situation qualifies as an outage at all.</p> <p>More generally, the Market Rules lack clarity on the nature and extent of a Market Generator's obligations to ensure that its Facility can operate on the fuel used for its certification, what (if anything) should occur if these obligations are not met, and the implications for outage scheduling and Reserve Capacity Testing.</p> <p>(See section 7.2.2.5 of the Final Rule Change Report for RC_2013_15.)</p>	The MAC agreed that this issue should be placed on hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020).
59	MAC October 2019	<p>Ancillary Service outage scheduling anomalies</p> <p>Currently Registered Facilities that provide Ancillary Services under an Ancillary Service Contract must be included on the Equipment List. This creates the following potential anomalies:</p> <ul style="list-style-type: none"> • some Ancillary Service Contracts may include outage reporting provisions that are specific to the service and 	The MAC agreed that this issue should be placed on hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020).

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<p>may differ from the standard outage scheduling provisions for Equipment List Facilities;</p> <ul style="list-style-type: none"> • Market Participants are not required to schedule outages in relation to the availability of their LFAS Facilities to provide LFAS; • Synergy is not required to schedule outages in relation to the availability of its Facilities to provide uncontracted Ancillary Services; and • a contracted Ancillary Service may not always be provided by a Registered Facility. <p>A review of the outage scheduling requirements relating to Ancillary Services may be warranted to resolve any anomalies and ensure that the obligations on Rule Participants to schedule outages for Ancillary Services are appropriate and consistent.</p> <p>(See section 7.2.2.5 of the Final Rule Change Report for RC_2013_15.)</p>	
60	MAC October 2019	<p>Outage scheduling obligations for Interruptible Loads</p> <p>The Market Rules require all Registered Facilities that are subject to an Ancillary Service Contract to be included on the Equipment List. This includes the Interruptible Loads that are used to provide Spinning Reserve Service. However, the Market Rules do not explicitly state who is responsible for outage scheduling for Interruptible Loads.</p> <p>This is a problem because the counterparty to an Interruptible Load Ancillary Service Contract may be an Ancillary Service</p>	The MAC agreed that this issue should be placed on hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020).

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<p>Provider, and not the Market Customer (usually a retailer) to whom the Interruptible Load is registered. An Ancillary Service Provider is not subject to obligations placed on a 'Market Participant or Network Operator', while the retailer for an Interruptible Load may not have any involvement with the Interruptible Load arrangement or the management of outages for that Load.</p> <p>(See section 7.2.3.1 of the Final Rule Change Report for RC_2013_15.)</p>	
61	MAC October 2019	<p>Direction of Self-Scheduling Outage Facilities</p> <p>An apparent conflict exists in the Market Rules between clauses that appear to allow System Management to reject or recall Planned Outages of Self-Scheduling Outage Facilities (e.g. clauses 3.4.3(a), 3.4.3(b), 3.4.4 and 3.5.5(c)) and clauses that appear to exempt Planned Outages of Self-Scheduling Outage Facilities from rejection or recall, such as:</p> <ul style="list-style-type: none"> • clause 3.18.2A, which explicitly exempts Self-Scheduling Outage Facilities from obligations under section 3.20; • clause 3.19.5, which allows System Management to reject an approved Scheduled Outage or Opportunistic Maintenance but fails to mention Planned Outages of Self-Scheduling Outage Facilities (which are neither Scheduled Outages nor Opportunistic Maintenance); and • clause 3.19.6(d), which sets out a priority order for System Management to consider when it determines which previously approved Planned Outage to reject but 	The MAC agreed that this issue should be placed on hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020).

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<p>does not include any reference to Planned Outages of Self-Scheduling Outage Facilities.</p> <p>(See section 7.2.3.2 of the Final Rule Change Report for RC_2013_15.)</p>	
62	MAC October 2019	<p>Outage scheduling obligations for non-intermittent Non-Scheduled Generators</p> <p>Under the Market Rules:</p> <ul style="list-style-type: none"> • a non-intermittent generation system with a rated capacity between 0.2 MW and 10 MW may be registered as a Non-Scheduled Generator; and • a non-intermittent generation system with a rated capacity less than 0.2 MW can only be registered as a Non-Scheduled Generator. <p>To date, no non-intermittent generation systems have been registered as Non-Scheduled Generators. However, if a non-intermittent Non-Scheduled Generator was registered it would be able to apply for Capacity Credits, and if assigned Capacity Credits would also be assigned a non-zero Reserve Capacity Obligation Quantity (RCOQ).</p> <p>While this would make the Non-Scheduled Generator subject to the same RCOQ-related Scheduling Day obligations as a Scheduled Generator, the Non-Scheduled Generator's Balancing Market obligations are more uncertain and were not considered in the development of RC_2013_15. The Balancing Submissions for a Non-Scheduled Generator comprise a single Balancing Price-Quantity Pair with a MW</p>	The MAC agreed that this issue should be placed on hold until the regulatory changes for the Foundation Regulatory Frameworks workstream are known (mid-2020).

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<p>quantity equal to the Market Generator’s “best estimate of the Facility’s output at the end of the Trading Interval”. There is no clear obligation to make the Facility’s RCOQ available for dispatch or to report an outage for capacity not made available, because new section 7A.2A, which will clarify these obligations for Scheduled Generators, does not apply to Non-Scheduled Generators.</p> <p>The need to cater for non-intermittent, Non-Scheduled Generators also affects the determination of capacity-adjusted outage quantities and outage rates and is likely to increase IT costs and the complexity of the Market Rules.</p> <p>(See section 7.2.3.4 of the Final Rule Change Report for RC_2013_15.)</p>	

Notes:

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

MARKET ADVISORY COMMITTEE MEETING, 2 FEBRUARY 2021

FOR NOTING

SUBJECT: UPDATE ON AEMO'S MARKET PROCEDURES

AGENDA ITEM: 7

1. PURPOSE

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

2. AEMO PROCEDURE CHANGE WORKING GROUP (APCWG)

	Most recent meeting	Next meeting
Date	30 November 2020	TBC
Market Procedures for discussion	<p>Market Procedure: Settlements (consequential changes required in relation to RC_2019_04: Administrative Improvements to Settlement).</p> <p>Market Procedure: Facility Registration, De-registration and Transfer (minor administrative changes and formatting improvements).</p>	TBC

3. AEMO PROCEDURE CHANGE PROPOSALS

The status of AEMO Procedure Change Proposals is described below, current as at 2 February 2021. 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_2020_01 Revisions to BMO tie-break methodology: <ul style="list-style-type: none"> • Market Procedure: Balancing Facility Requirements • Market Procedure: Balancing Market Forecast 	The proposed amendments to the BMO tie-break methodology will assist AEMO manage the security of the power system during periods of low demand by enabling Facilities to offer minimum generation quantities as a separate tranche at the Minimum STEM Price.	On hold.	Procedure Change Report	TBA

Agenda Item 8(a): Overview of Rule Change Proposals (as at 25 January 2021)

Meeting 2021_02_02

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

Indicative Rule Change Panel Activity Until the Next MAC Meeting

Reference	Title	Events	Indicative Timing
RC_2014_03	Administrative Improvements to the Outage Process	Publication of the Final Rule Change Report	26/02/2021
RC_2019_03	Method used for the assignment of Certified Reserve Capacity to Intermittent Generators	Close of first submission period	11/02/2021

Rule Change Proposals Commenced since the Report presented at the last MAC Meeting

Reference	Submitted	Proponent	Title	Commenced
RC_2017_02	04/04/2017	Perth Energy	Implementation of 30-Minute Balancing Gate Closure	01/12/2020

Rule Change Proposals Awaiting Commencement

Reference	Submitted	Proponent	Title	Commencement
None				

Rule Change Proposals Rejected since Report presented at the last MAC Meeting

Reference	Submitted	Proponent	Title	Rejected
None				

Rule Change Proposals Awaiting Approval by the Minister

Reference	Submitted	Proponent	Title	Approval Due Date
None				

Formally Submitted Rule Change Proposals

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
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Fast Track Rule Change Proposals with Consultation Period Closed

None						
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Fast Track Rule Change Proposals with Consultation Period Open

None						
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Standard Rule Change Proposals with Second Submission Period Closed

RC_2014_03	27/11/2014	IMO	Administrative Improvements to the Outage Process	High	Publication of Final Rule Change Report	26/02/2021
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Standard Rule Change Proposals with Second Submission Period Open

None						
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Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
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Standard Rule Change Proposals with First Submission Period Closed

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	30/06/2021
RC_2018_03	01/03/2018	Collgar Wind Farm	Capacity Credit Allocation Methodology for Intermittent Generators	Medium	Publication of Draft Rule Change Report	30/06/2021
RC_2019_01	21/06/2019	Enel X	The Relevant Demand calculation	Medium	Publication of Draft Rule Change Report	30/06/2021

Standard Rule Change Proposals with the First Submission Period Open

RC_2019_03	17/12/2020	ERA	Method used for the assignment of Certified Reserve Capacity to Intermittent Generators	High	Close of first submission period	11/02/2021
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Pre-Rule Change Proposals

Reference	Proponent	Description	Next Step	Date
RC_2020_04	Panel	Balancing Facility Loss Factor Adjustment	Consult with the MAC on the Pre-Rule Change Proposal	TBD
TBD	Perth Energy	Issues with Reserve Capacity Testing	Submit Pre-Rule Change Proposal	TBD

Rule Changes Made by the Minister

Gazette	Date	Title	Commencement
20201/17	18/01/2021	Wholesale Electricity Market Amendment (Governance) Rules 2021	<ul style="list-style-type: none"> Schedule A will commence on 01/02/2021 Schedule B will commence on 01/07/2021 Schedule C will commence immediately after the commencement of the Amending Rules in clauses 50 and 62 of Schedule C of the Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020
2020/214	24/12/2020	Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020	<ul style="list-style-type: none"> Schedule A commenced on 01/01/2021 Schedule B will commence on 01/02/2021 Schedule C will commence at a time specified by the Minister in a notice published in the Gazette
2020/196	24/11/2020	Wholesale Electricity Market Amendment (Tranche 1 Amendments) Rules 2020	<ul style="list-style-type: none"> Schedule A commenced on 25/11/2020 Schedule B, Part 1 commenced on 01/01/2021 Schedule B, Part 2 will commence on 01/02/2021 Schedule C will commence on 01/10/2021
2020/108	26/06/2020	Wholesale Electricity Market Amendment (Technical Rules Change Management) Rules 2020	<ul style="list-style-type: none"> The Amending Rules commenced on 01/01/2021
2020/24	21/02/2020	Wholesale Electricity Market Amendment (Reserve Capacity Pricing Reforms) Rules 2019	<ul style="list-style-type: none"> The first tranche commenced 22/02/2020 The second tranche will commence on 01/10/2021

Review of the Minimum STEM Price

MAC Presentation

2 February 2021

D224409



Economic Regulation Authority

WESTERN AUSTRALIA

Agenda Item 9(a)

Agenda

01

Background

02

Review process

03

Preliminary timeline

04

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Background

The first balancing market floor price event occurred in October 2019. Following this event, a rule change proposal (RC_2019_05) was submitted seeking an interim floor price and a process to annually review the floor price.

The Market Rules were amended on 7 August 2020 and gave the ERA the responsibility of reviewing the Minimum STEM Price (floor price) annually.

- The first review has commenced.
- Covers the period from 1 October 2019 to 31 January 2021.

Review process

Minimum STEM Price review is a two-step process:

- **Step 1:** ERA to determine if the Minimum STEM Price is appropriate, with regard to the criteria in the Market Rules.
- **Step 2:** If the Minimum STEM Price is found to not be appropriate, a new price must be calculated in accordance with the process in the Market Rules.

Preliminary Timeline*

Milestone	Estimated Delivery
Commence review	February**
Issues Paper	March
- Stakeholder consultation period	4 weeks (early April)
Draft Report	June
- Stakeholder consultation period	6 weeks (mid-July)
Final Report	August/September
Commencement (if new Minimum STEM Price is required)	September

*Timeline subject to change

** The Market Rules require the first review to commence by 1 February 2021

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Thank you

Ask any questions



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2020 review on two market rules intended to incentivise availability of generators

Final report findings and developing a Rule Change Proposal –
MAC Meeting 2 Feb 2021

D224410



Economic Regulation Authority

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Purpose of this Presentation

Summary of the ERA's Final Report and recommendations from the 2020 review on two market rules intended to incentivise availability of generators.

The ERA is beginning its consultation with the MAC to develop a Rule Change Proposal to implement the review's recommendations (slide 10).

Background of the reviews

The ERA was required to review:

- The reserve capacity reduction clause (4.11.1(h)) and the outage thresholds (4.11.1D).
- The Refund Exempt Planned Outage (REPO) clause (4.26.1C) limit.

Conducted in consultation with AEMO.

No direct overlap with the Energy Transformation Strategy or reforms. This review has greater significance given the introduction of the Network Access Quantity regime.

Final report published on 29 Dec 2020.

What the clauses do – 4.11.1(h)

Clause 4.11.1(h) – reserve capacity reduction clause

- Is part of the process to determine the certified reserve capacity (CRC) of a generator, which represents the expected contribution to meeting the reliability planning criterion.
- Any generators with outage rates above the thresholds in 4.11.1D can have a lesser CRC assigned to them.

OUTAGE RATE LIMIT TABLE

For AEMO decisions related to the Capacity Cycle	Forced Outage rate greater than	Combined Planned Outage rate and Forced Outage rate greater than
Prior to 2015	15%	30%
2015	14%	28%
2016	13%	26%
2017	12%	24%
2018	11%	22%
2019 onwards	10%	20%

What the clauses do – 4.26.1C

Clause 4.26.1C – REPO clause limit

- Only applies to Scheduled Generators.
- The REPO Count is the equivalent number of trading intervals that a generator has been on planned outages.
- If the Refund Exempt Planned Outage (REPO) Count is over 8,400 – the REPO count limit – then a generator's planned outage is liable for refunds. If not, then the generator's planned outage is exempt from refunds.
- The REPO Count is calculated over a rolling 1,000 trading day period prior to the next planned outage for that generator.

Generator availability findings

- Between 2 to 5 generators a year are above the 4.11.1D outage thresholds.
- No generator has been assigned lesser CRC under clause 4.11.1(h).
- The REPO clause (4.26.1C) was introduced in 2017, with only 4 generators having breached the REPO count limit.
- No noticeable change to the availability of the WEM's Scheduled Generator fleet with the changes to these clauses.

Other issues identified

- Reducing a generator's CRC under clause 4.11.1(h) risks a 'double count' of outages already accounted for in the Reserve Margin.
 - The double count of outages occurs where a generator is reduced CRC to account for outages but does not compensate for the level of outages already built into the Reserve Margin.
 - The 2012 review of the Planning Criterion set the Reserve Margin at 7.6 per cent. This incorporated outages of:
 - 11.6 per cent for coal generators
 - 10.9 per cent for gas
 - 16.2 per cent for dual fuel generators

Other issues identified continued

- Inconsistency between certifying Reserve Capacity and the Capacity Cost Refund mechanism.
 - If a generator is reduced CRC (and thus Capacity Credits) under 4.11.1(h) due to a generator's outage rate, the refund mechanism still requires capacity refunds for any forced outage or planned outage above REPO.
 - This is an inconsistent treatment of a generator's outages as that generator has already received less CRC to account for its expected outage rate.

Other issues identified continued

- Inconsistency between the assignment of Capacity Credits under the RCM and meeting the Planning Criterion reliability requirement.
 - Examined in Appendix 9 of the Final Report.
 - By not accounting for a generator's EFORd when certifying capacity, it is over-estimating that generator's likely expected capacity contribution during times of system stress.
 - This could mean that not enough expected capacity is being procured to meet the reliability requirement of the Planning Criterion (see slide 11).

Final Report Recommendations

1. No change to the REPO count calculation or limit.
2. No change to the operation of clause 4.11.1(h).
3. Change the thresholds associated with clause 4.11.1(h) to zero (4.11.D).
4. Provide guidance to AEMO on how to use its discretion under clause 4.11.1(h).

These recommendations reinforce the link between a generator's CRC and Capacity Credits to its contribution to system adequacy.

Final Report Recommendations - Rationale

- Ensure that enough expected capacity contribution is being procured to meet the reliability requirement in the Planning Criterion.

Table 19: 2019 reserve capacity accounting for fleet EFOR¹⁵⁸

	2019
Reserve Capacity Target (MW)	4,660
Total capacity credits procured (MW)	4,888
Total expected capacity credits (based on historical EFOR) (MW)	4,561
Expected capacity shortfall ¹⁵⁹ (MW)	(99)
Level of excess (deficit) capacity	(2.1%)

Source: ERA analysis of market data

Final Report Recommendations - Rationale

- Changes will allow AEMO greater flexibility to consider any generator when assessing outages.
- Benefits to consumers of not over-paying for capacity contribution that is not subsequently delivered.
- Guidance will give the process greater transparency and inform Market Participants on how clause 4.11.1(h) will be applied.

Interaction of recommendations with the reform program

Clause 4.11.1(h) is an input into the Network Access Quantities (NAQ) process. If CRC is reduced, this corresponds to a loss of NAQ.

The recommendations of this review are consistent with the NAQ principle of not protecting under performing generators since generators can be assigned CRC based on their contribution to system reliability.

$$\textit{Certified Reserve Capacity} = \textit{rated capacity at 41 C} \times (1 - \textit{EFORd})$$

EFORd = Equivalent demand forced outage rate

As AEMO can assess all generators and account for their forced outages, under performing generators will be assigned less CRC which reduces their NAQ, freeing up capacity in that part of the network.

Rule Change Proposal

To commence development of a Rule Change Proposal to implement the review's recommendations, the ERA must consult with the MAC – clause 2.5.1B.

The requirements of clause 2.5.1B for a Rule Change Proposal are:

- (a) What matters are being addressed;
- (b) Options to resolve these matters;
- (c) ERA's estimated costs of developing the Rule Change Proposal;
- (d) Whether and when the ERA should develop the Rule Change Proposal; and
- (e) Whether/how the MAC will be consulted during development of the Rule Change Proposal.

Matters in the Rule Change Proposal

- Reducing the outage thresholds to zero for reserve capacity certification.
- Guidance to AEMO on using their discretion under cl 4.11.1(h):
 - Aim: Base a generator's CRC on its forecast expected contribution to meeting the reliability requirement in the Planning Criterion

Certified Reserve Capacity = rated capacity at 41 $C \times (1 - EFORd)$

- Use of EFORd (or equivalent) to calculate outage rates
- How outages in the Reserve Margin will be accounted for
- Assess the inconsistency with the Capacity Cost Refund mechanism
- Implications for Reserve Capacity Obligation Quantities
- Align with the NAQ and proposed Relevant Level Method

Estimated costs of the Rule Change Proposal

Estimated six to nine months to develop the Rule Change Proposal as many parts of the WEM Rules are affected.

Interactions between the different parts of the RCM will need to be assessed to ensure consistent application and accounting of outages.

Need to ensure consistency with the EPWA's changes to the WEM Rules.

Estimate of the cost will be developed with the Rule Change Proposal and will be a mix of internal ERA resources, consultants and legal review as appropriate.

Whether and when the ERA should develop the rule change

The ERA intends to develop this rule change proposal as soon as possible but recognises:

- Energy Policy WA and AEMO are working on the reform program.
- Stakeholders are engaged with the reform program.

The ERA wants to ensure that the Proposal will achieve the intended outcomes, be beneficial to consumers and meet the objectives of the WEM. To achieve this the ERA wants to develop the Proposal by engaging with stakeholders.

Delaying development of the Rule Change Proposal risks under-procuring reserve capacity in the future which risks future system reliability.

Consultation with the MAC

The ERA is seeking to consult with the MAC on:

- The development of the Rule Change Proposal (current meeting);
- Development/discussion of concepts in the Rule Change Proposal;
- Feedback on the pre-rule change proposal.

Other consultation (e.g. one-on-one meetings) may be required during the development of the Rule Change Proposal.

The ERA Secretariat welcomes meetings with stakeholders on the development of this Rule Change Proposal.

Thank you

Ask any questions



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Increase in Spinning Reserve Requirement for Distributed PV Tripping

AEMO System Management
January 2021

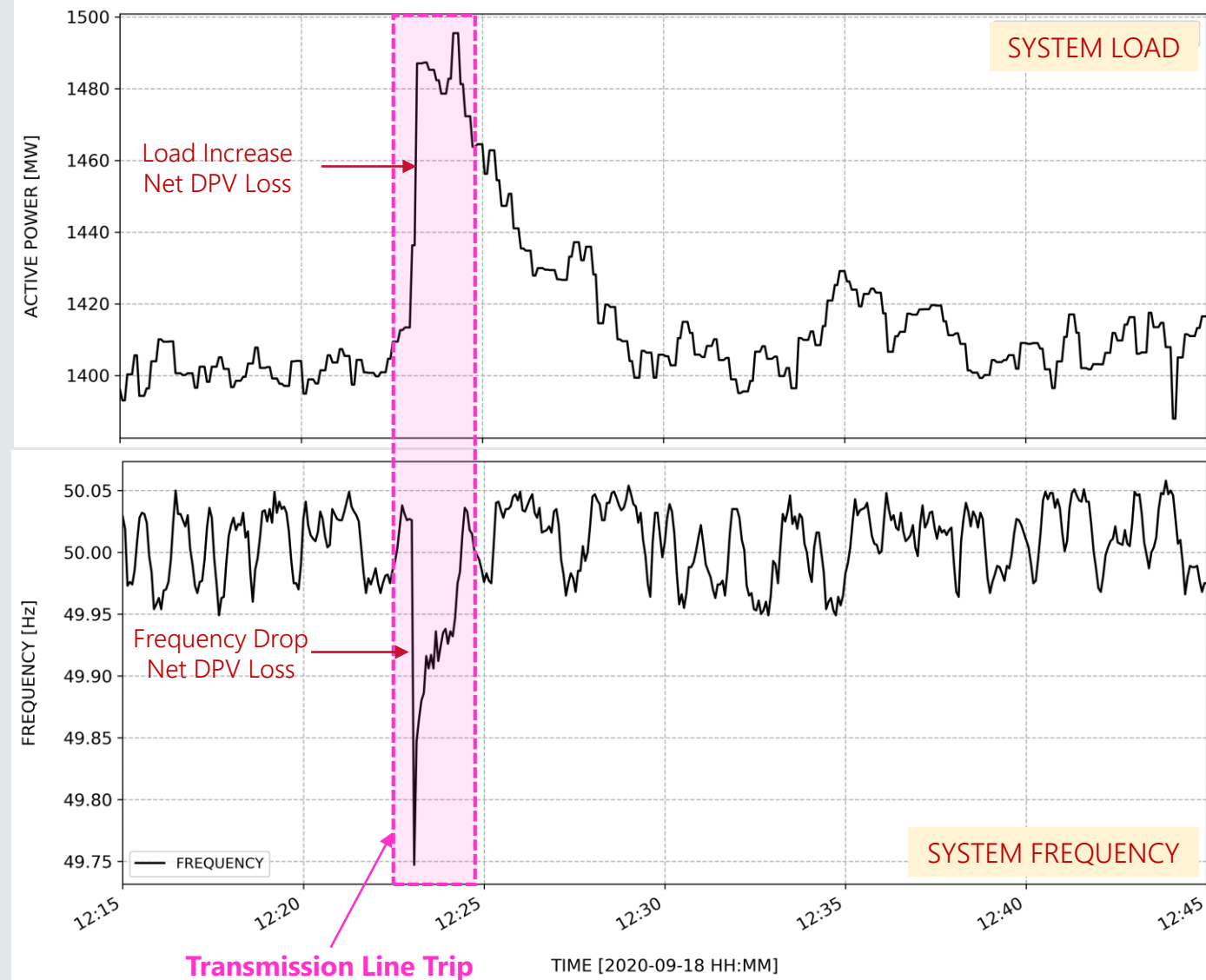
Background

- The South West Interconnected System (SWIS) is experiencing continued rapid growth of distributed energy resources (DER) with the installation of rooftop photovoltaic (PV) systems known as distributed PV (DPV). There is now more than 1,500 MW of DPV installed behind the meter (on consumers' premises) in the distribution networks.
- As the levels of installed DPV grow, an emerging system security risk is increasing in the SWIS. While not a new issue, the impact is growing and has materialised on a number of occasions.
- During a fault, both load and PV trip and disconnect from the power system. As the magnitude of installed DPV grows, the net change on the system is effectively loss of generation at certain points in the day.
- The outcomes of AEMO's preliminary investigations indicate that, to date this consequential impact has occasionally resulted in a net-loss of generation MW in the system in the order of 70-130 MW as observed from the analysis of events – refer to next page (line trip) and appendix (line & generation trip) for two real cases.
- The aim of the slide deck is to present AEMO's approach to address this issue in the short term and to share current work being done to better estimate the impacts.

Background

Real Event Example (Line Contingency)

- On 18th September 2020, there was a transmission line trip in the SWIS at around noon, which resulted in load increase (~100MW) and, in turn, a frequency drop in the system – please see the graphs shown in front.
- In the past, such an event (i.e., line trips) caused load drop and over-frequency conditions due to losing loads more than DPV (less DPV installed, hence generation excess).
- Nowadays, the outcome is exactly opposite during daytime or high PV times as the amount of DPV loss is higher than load loss as can be observed here.
- This event indicates the importance of DPV loss for line trips, which exacerbate the frequency drop if it coincides with generation loss – refer to Appendix for a real event.



AEMO's Action

AEMO's Action Outcome of Analysis

- Significant work has been done in the NEM in an attempt to better understand and be able to model the behaviour of DPV, particularly in relation to its ability to ride through disturbances and the subsequent impact on the system.
- Estimates have been developed of the amount of load and DPV that would trip for various fault severities, and considering the location of the fault relative to DPV installations.
- The complexity of this analysis is further challenged by the limited ability to interrogate actual response of devices behind the meter, although a limited data set is currently being assessed.
- This knowledge has been used, together with the outcome of local incidents, to determine the validity of using similar assumptions in the SWIS.
- Various case studies of actual transmission faults have shown the responses to be similar to that estimated through the modelling.
- Ongoing analysis is being done to improve the modelling capability, as well as better understand any differences behind the assumptions required for the SWIS specifically.
- While this analysis continues, AEMO is taking action to reduce the risk associated with specific contingencies. These actions will evolve as better understanding of the technical responses is established.

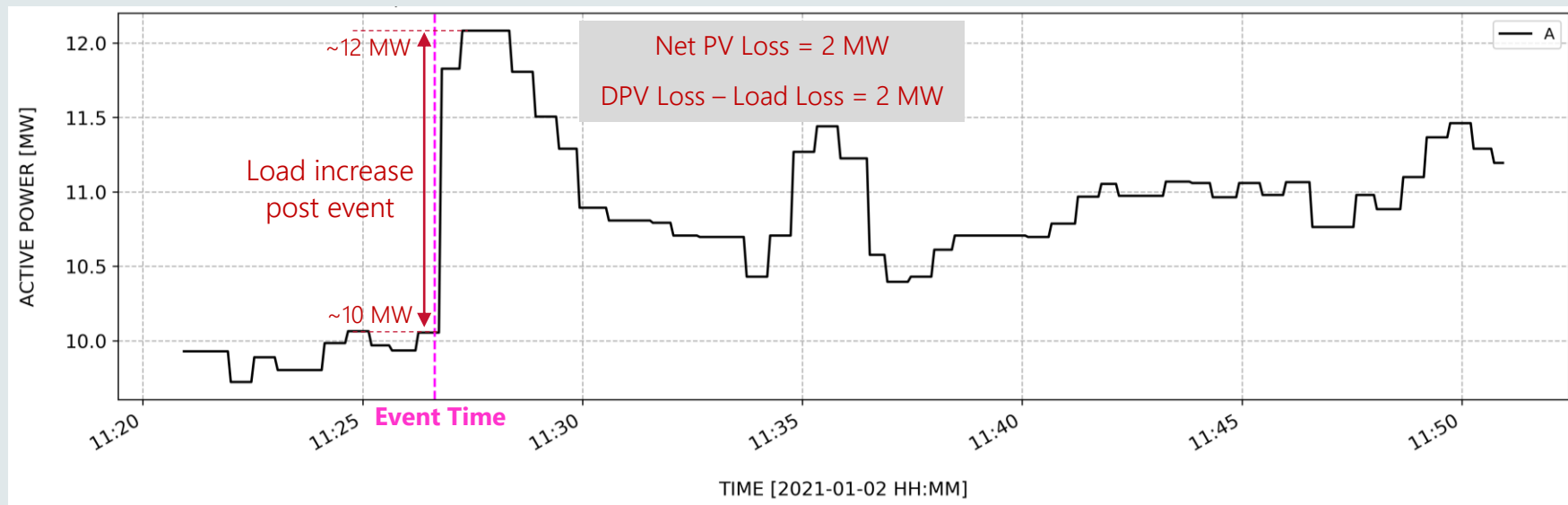
AEMO's Action Increase in Spinning Reserve Requirement

- To manage Power System Security, AEMO will incorporate the estimated net MW loss of DPV, which is consequentially lost for certain contingencies, in the calculation of Spinning Reserve Ancillary Service (SRAS) requirement where applicable.
- Ensuring adequate SRAS is necessary to prevent an UFLS event for a single credible contingency.
- While the net loss of PV may happen for any fault, when considered in addition to the loss of generation on a particular part of the network, this is likely to become the largest contingency event.
- As a result, AEMO will immediately increase the SRAS requirement, in specific Trading Intervals. The Trading Interval subjected to this change are when the combination of a credible network contingency and estimated consequential net DPV loss forms the largest generation contingency, which mostly happens during high DPV times (i.e. daytime).
- The credible network contingency of a fault on the North Country 330 kV transmission line, which causes both generation loss and voltage depression will be initially considered. The amount of generation loss due to this network contingency includes the tripping of Yandin and Warradarge wind farms as they are connected to a 330V single line.
- AEMO deems that considering consequential net DPV loss in the calculation of the SRAS requirement does not change the approved Ancillary Service requirement for the Spinning Reserve Service, which in 2020/21 is at least the maximum of:
 - 70% of the largest generator, and
 - 70% of the largest contingency event that would result in generation loss.

Appendix

Real Event Example (Line + Generation Trip) Network Contingency on 2021-01-02

- At 11:26:38 (AWST) on Saturday 02 January 2021, a short-circuit fault on the North Country 330 kV line triggered the protection relay to open the 330kV line, which, in turn, led to losing Yandin and Warradarge wind farms. The total generation contingency size considered for the calculation of the SRAS requirement prior to the event was formed by Yandin and Warradarge, and it was around 250 MW. However, the trip resulted in a net generation loss of ~320 MW considering all load, generation and DPV losses.
- From the analysis of the event, it was identified that around 120 MW of DPV (net MW with the consideration of underlying load disconnection) consequentially tripped. This phenomenon can be observed by checking the load response of each substation before and after the trip. The chart below shows the output of one substation.



Real Event Example (Line + Generation Trip) Network Contingency on 2021-01-02

- Excluding the amount of DPV loss into the SRAS requirement calculation might lead to failing to arrest the frequency post generation loss in the system as lower SRAS will be provisioned due to lower SRAS requirement.
- For this event, below figure shows the frequency measurement during the event and, also the outcome of the real-time frequency stability (RTFS) tool, which AEMO is using in the control room to monitor frequency excursions for largest generation loss in real time. The tool shows a good alignment with the measured frequency when the DPV loss is considered, which proves that the amount of DPV loss should be reflected in the calculation of the SRAS requirement.

