

Meeting Agenda

Meeting Title: Market Advisory Committee

Date: Tuesday 20 November 2018

Time: 9:30 AM – 12:30 PM

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

Item	Item	Responsibility	Duration
1	Welcome	Chair	5 min
2	Meeting Apologies/Attendance	Chair	5 min
3	Minutes from Previous Meeting		
	(a) Minutes of Meeting 2018_09_12	Chair	5 min
	(b) Minutes of MAC Workshop on Constrained Off Payments 2018_10_24 (including the workshop slides for reference purposes)	Chair	5 min
4	Actions Items	Chair	5 min
5	MAC Market Rules Issues List	Chair	10 min
6	Update on the Network and Market Reform Program		
	(a) Status Update (verbal update – no paper)	PUO/AEMO	5 min
	(b) Market Design and Operation Working Group (MDOWG) Update (verbal update – no paper)	PUO	5 min
	(c) Power System Operation Working Group (PSOWG) Update (verbal update – no paper)	AEMO	5 min
7	AEMO Procedure Change Working Group Update	AEMO	5 min

Item	Item	Responsibility	Duration
8	Rule Changes		
	(a) Overview of Rule Change Proposals	Chair	10 min
	(b) Indicative Rule Change Proposal Work Program	Chair	5 min
	(c) PRC – Full Runway Allocation of Spinning Reserve Costs	PUO	20 min
	(d) PRC – Removal of constrained off compensation for Network Outages	PUO	20 min
	(e) Pre PRC – Adjusting Non-STEM Settlements Using Latest Available Data	AEMO	15 min
9	Treatment of Storage Technologies in other Jurisdictions	ERA	20 min
10	Review of the MAC Constitution and MAC Appointment Guidelines and the 2019 MAC Composition Review	RCP Support	25 min
11	MAC Schedule	Chair	5 min
12	General Business	Chair	5 min
	(a) TDL/NTDL status where BTM generation is present	Andrew Stevens	

Next Meeting: 5 February 2019

Please note, this meeting will be recorded.

Minutes

Meeting Title:	Market Advisory Committee (MAC)
Date:	12 September 2018
Time:	12:35 PM – 2:35 PM
Location:	Training Room No. 2, Albert Facey House 469 Wellington Street, Perth

Attendees	Class	Comment
Stephen Eliot	Chair	
Matthew Martin	Minister's Appointee – Small-Use Consumer Representative	
Martin Maticka	Australian Energy Market Operator (AEMO)	
Dean Sharafi	System Management	
Shibli Khan	Economic Regulation Authority (ERA) Observer	Proxy for Sara O'Connor
Will Bargmann	Synergy	
Kei Sukmadjaja	Network Operator	Proxy for Margaret Pырchla
Jacinda Papps	Market Generators	
Shane Cremin	Market Generators	
Andrew Stevens	Market Generators	From 12:55 PM
Wendy Ng	Market Generators	
Patrick Peake	Market Customers	
Geoff Gaston	Market Customers	
Erin Stone	Market Customers	Proxy for Steve Gould, from 12:50 PM

Apologies	Class	Comment
Sara O'Connor	ERA Observer	
Steve Gould	Market Generators	
Margaret Pырchla	Network Operator	
Peter Huxtable	Contestable Customers	

Also in attendance	From	Comment
Jenny Laidlaw	RCP Support	Presenter, Minutes
Richard Cheng	RCP Support	Presenter
Rebecca Banks	Kleenheat	Presenter, from 12:45 PM
Julian Fairhall	ERA	Observer, to 2:20 PM
Natalie Robins	ERA	Observer, to 2:20 PM
Denise Ooi	Kleenheat	Observer
Kate Ryan	Public Utilities Office (PUO)	Observer
Matthew Bowen	Jackson McDonald	Observer
Duncan MacKinnon	Australian Energy Council	Observer
Tim McLeod	Amanda Energy	Observer
Oscar Carlberg	Synergy	Observer
Noel Schubert		Observer
Rudi James	Western Power	Observer
Paul Arias	Bluewaters Power	Observer
Laura Koziol	RCP Support	Observer
Greta Khan	RCP Support	Observer

Item	Subject	Action
1	Welcome	
	The Chair opened the meeting at 12:35 PM and welcomed members and observers to the 12 September 2018 MAC meeting.	
2	Meeting Apologies/Attendance	
	The Chair noted the attendance as listed above.	
3	Minutes from Previous Meeting	
	Draft minutes of the MAC meeting held on 8 August 2018 were circulated on 27 August 2018. The Chair noted that the ERA and Ms Erin Stone had suggested changes to the draft minutes. The ERA's suggested changes were shown in the revised draft distributed in the meeting papers. Ms Stone's suggestion was as follows:	

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	<p>Page 13, Section 10, last dot point:</p> <ul style="list-style-type: none"> “...Ms Stone also expressed concerns about the <u>noted the proposed fees did not yet include the potential costs of reform implementation beyond 2018/19 or any the</u> transitional assistance for Generators that was discussed at the PUO’s industry forum on constrained network access reform on 3 August 2018.” <p>Subject to these changes, the MAC accepted the minutes as a true record of the meeting.</p>	
	<p>Action: RCP Support to amend the minutes of the 8 August 2018 meeting to reflect the agreed changes and publish on the Rule Change Panel’s (Panel) website as final.</p>	<p>RCP Support</p>
4	<p>Actions Arising</p> <p>The closed action items were taken as read.</p> <p>Action 19/2017: Open – to be progressed as part of the Wholesale Electricity Market (WEM) Reform Program.</p> <p>Action 33/2017: On hold until early 2019.</p> <p>Action 16/2018: Mr Martin Maticka advised that AEMO was scheduled to begin discussions with Market Participants on the proposed Outstanding Amount-related Market Procedure changes in the third quarter of 2018. In response to a question from Mr Geoff Gaston, Mr Maticka clarified that AEMO’s Reduction of Prudential Exposure Working Group was focussed on the IT system changes for implementation of RC_2017_06 (Reduction of the prudential exposure in the Reserve Capacity Mechanism). The MAC agreed that this item can be closed.</p> <p>Action 17/2018: The Chair noted that a request for interest in a MAC workshop for RC_2013_15 (Outage Planning Phase 2 – Outage Process Refinements) was circulated on 3 September 2018. The workshop was to be held on 17 September 2018. The MAC agreed that this item can be closed.</p> <p>Action 19/2018: Mr Maticka advised that about \$1 million of the \$3.6 million additional expenditure on rule changes reported in AEMO’s third supplementary AR4 submission related to the proposed changes to the Outstanding Amount calculation and not to Rule Change Proposals. Further expenditure on the Outstanding Amount calculation would be included in AEMO’s AR5 submission. The MAC agreed that this item can be closed.</p> <p>Action 20/2018: Mr Maticka noted that AEMO used a five-year depreciation period for any item with an expected asset life of five years or more. AEMO accelerated the depreciation of an item over</p>	

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	its expected asset life if this was shorter than five years. The MAC agreed that this item can be closed.	
5	MAC Market Rules Issues List Update	
	<p>The Chair noted the inclusion of a new Table 3 in the MAC Market Rules Issues List (Issues List). The new table lists the scheduled preliminary reviews and the broader issues associated with each review.</p> <p>In response to a question from Mr Will Bargmann, Ms Jenny Laidlaw clarified that issues will be removed from the Potential Rule Change Proposals list once a Pre-Rule Change Proposal addressing the issue is presented to the MAC.</p> <p>The Chair sought the views of the MAC on the preliminary urgency ratings for Potential Rule Change Proposals 45 (transfer of responsibility for setting document retention requirements) and 46 (transfer of responsibility for setting confidentiality statuses). The MAC recommended assigning a Low urgency rating to these two issues.</p> <p>The MAC agreed to remove Broader Issue 29 (regarding the need for greater clarity on the respective roles and responsibilities for each regulatory body) from the Issues List, on the basis that this is a PUO policy issue rather than a MAC-related issue.</p> <p>The Chair sought the MAC's views on how RCP Support should prioritise work on the preliminary discussions listed in Table 3 of the Issues List against work on Rule Change Proposals. The Chair noted that the next scheduled preliminary discussion would be on behind-the-meter issues, and is likely to have significant consequences for Market Participants. However, it will be a material piece of work to frame the issues for discussion, and the Chair questioned whether RCP Support should divert resources to these tasks or focus on the progression of Rule Change Proposals.</p> <p>Mr Maticka questioned the statutory role of the Panel in undertaking supplementary investigations. The Chair agreed that the Panel does not have a role to undertake broader market reviews, although the MAC does have a role in advising the Panel on the development of the market. The Chair noted that this limits how much the MAC can do in respect of the broader issues covered in the preliminary discussions.</p> <p>Mr Dean Sharafi considered that while RCP Support's primary role was to consider Rule Change Proposals, a gap still existed in the market's governance arrangements, and someone should have responsibility for looking at how the market should evolve.</p> <p>Mrs Jacinda Papps asked whether the recent work undertaken by AEMO and the Energy Networks Association (ENA) on behind-the-</p>	

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	<p>meter issues could be leveraged. There was some discussion about the significance of the behind-the-meter issues, how these issues could be addressed in a timely manner, and the need for greater coordination of the evolution of the market.</p> <p>Mr Matthew Bowen observed that whatever the MAC decided to progress would impact on the rule change process due to the limited resources available. Mr Bowen also suggested that under the current arrangements the MAC was the best-placed group help coordinate the evolution of the market, even though it did not have a formal legislative role. Mr Bowen considered that if the MAC did not progress the broader reviews then it should not assume the work would be picked up by another party, given the current workloads of the relevant agencies.</p> <p>Mr Matthew Martin noted that policy setting is the responsibility of government, but the PUO's full work program meant it was not likely to be able to work on these issues in the near future.</p> <p>Mr Andrew Stevens suggested that the PUO, AEMO and Western Power form a committee to undertake the required forward planning and advise the market on what policy settings needed to be changed. The market could then progress rule changes consistent with those policy settings. Mr Martin replied that part of the Minister's overarching program of work was to make clearer the various system, reliability standard and network planning responsibilities for the WEM.</p> <p>Mr Sharafi considered that a Rule Change Proposal to give AEMO the function of system planner should be progressed as a priority. Mr Shane Cremin agreed with Mr Stevens that the function should not be allocated solely to AEMO, and suggested that government should have the main responsibility, guided by some other body.</p> <p>Mr Cremin questioned whether a body such as the National Electricity Market's Energy Security Board (ESB) might be used to provide the necessary guidance. Mr Sharafi considered that the ESB was established because the Federal Government did not approve the last recommendation of the Finkel Review, and the WEM was in a better position in that there was only one government and one network operator involved.</p> <p>Mr Gaston asked whether a MAC Working Group (or similar working group) could be established to develop an issues paper on behind-the-meter issues for government consideration. Ms Laidlaw asked how much effort Market Participants were willing to contribute to the development of such a paper.</p> <p>Mr Cremin asked whether the ERA would be considering the governance structure issues in its annual report to the Minister on the effectiveness of the market. Dr Natalie Robins replied that during</p>	

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	<p>its previous review the ERA had consulted on whether an ESB was needed in the WEM, but had received little feedback on the question. Dr Robins could not comment on whether there would be a focus on the issue in the ERA's next review.</p> <p>Mr Noel Schubert noted that in the past an energy policy and planning bureau existed to perform this function; and considered there was a real gap in not having a body at a higher level than all of the individual stakeholder organisations.</p> <p>The Chair concluded that while there was general MAC agreement that behind-the-meter issues are highly important and RCP Support should progress the preliminary discussion as soon as it can, there was no suggestion that this work should take priority over the progression of Rule Change Proposals. Further, when RCP Support does pick up the behind-the-meter work, it should consider forming a Working Group to assist the development of an issues paper for government consideration.</p>	
6	<p>Update on the Network and Market Reform Program</p>	
	<p>Mr Martin noted that the PUO was holding an industry forum for the WEM Reform Program on 20 September 2018. The forum would build on previous presentations made to the MAC with regard to the overarching program; and would outline the works being delivered by the program, the proposed development tranches, the responsibilities of the PUO and AEMO, and some of the next steps.</p> <p>Mr Martin noted there was a need for ongoing industry consultation not just through the MAC but with other stakeholders. Mr Martin advised that details of the forum were available on the PUO's website and asked interested parties to register to attend by the following Monday.</p> <p>Mr Martin also noted that the PUO had extended the deadline for comments on its consultation paper "Proposed approach to implement constrained network access" until 21 September 2018. The PUO was still working towards the publication of EY's modelling report but the publication date was still uncertain. Mr Martin was also uncertain of the impact, if any, the delay would have on the overall project implementation dates.</p> <p>Mr Martin noted that stakeholders were invited to register for the new Power System Operation Working Group (PSOWG) and Market Design and Operation Working Group (MDOWG). The first meeting of the PSOWG was scheduled for the afternoon of 26 September 2018, and would focus on the work being undertaken on the future framework for ancillary services. The date of the first MDOWG was yet to be determined.</p> <p>Mr Martin advised that Mr Aden Barker of the PUO would start work as Project Director for the WEM Reform Program the following week.</p>	

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	Mr Barker's focus would be on the oversight of the reform program, looking at the external stakeholder relationships and making sure that the reform program was proceeding in a coordinated fashion.	
7	AEMO Procedure Change Working Group (APCWG) Update	
	Mr Sharafi noted that no meetings of the APCWG had been held since the last MAC meeting. However, during this period AEMO had undertaken further consultation with Western Power on outages, communication and control protocol requirements and several other matters.	
	The MAC noted the update on AEMO's Market Procedures.	
8(a)	Overview of Rule Change Proposals	
	The MAC noted the overview of Rule Change Proposals.	
	The Chair noted that the second submission period for RC_2014_06 (Removal of Resource Plans and Dispatchable Loads) was currently open, and invited stakeholders to provide their comments on the Draft Rule Change Report.	
	The Chair also noted that AEMO discussed RC_2017_02 (Implementation of 30-Minute Balancing Gate Closure) at its last WA Electricity Consultative Forum meeting on 21 August 2018, and in particular discussed the possibility of moving to a 90-minute Balancing Gate Closure.	
	The Chair noted that technically the discussion had no standing with the Panel, but RCP Support could consider the direction proposed by AEMO if Market Participants wanted. For RCP Support to recommend accepting RC_2017_02 in an amended form, it would need to look at all the options in front of it, which could include a 90-minute gate closure and 60-minute gate closure. However, the last feedback from the MAC indicated that priority should be given to the progression of RC_2014_06, RC_2013_15 and RC_2014_03 (Administrative Improvements to the Outage Process) ahead of RC_2017_02.	
	The following points were discussed regarding RC_2017_02:	
	<ul style="list-style-type: none"> <li data-bbox="320 1666 1222 1877">• Mr Patrick Peake indicated that he supported the change to a 90-minute gate closure if it could be done cheaply. Mr Maticka replied that AEMO's first period submission confirmed this would be the case, and suggested that the proposed amendments could be modified to give AEMO the ability to initially move to 90 minutes and then later potentially move to a tighter window. <li data-bbox="320 1899 1222 1995">• Mr Sharafi reiterated that AEMO could move to a 90-minute gate closure without system changes if that was what the MAC wanted it to do. AEMO could also look at providing forecasts 	

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	<p>with more frequency or in a shorter timeframe than the gate closure.</p>	
	<ul style="list-style-type: none"> <li data-bbox="320 360 1220 577">• Ms Laidlaw noted that the Panel needed to consider the costs and benefits of all the options, which included a change to a 60-minute gate closure. The Panel also needed to consider the issues raised by Synergy about its gate closure times. These were not trivial issues and so there was more work to be done on the proposal regardless of the eventual outcome. <li data-bbox="320 600 1220 891">• Mr Cremin considered that if the move to 90 minutes could be done simply then it should be progressed as quickly as possible. The Chair reiterated that under the Market Rules the Panel would need to form the view that a move to a 90-minute gate closure was a better option than that presented in the Rule Change Proposal, and also better than other alternatives such as a 60-minute gate closure. The Panel could not just decide to implement a 90-minute gate closure because it was easy. <li data-bbox="320 913 1220 1055">• There was some discussion about whether a separate Rule Change Proposal could be used to implement a 90-minute gate closure in the short term without affecting consideration of a shorter gate closure under RC_2017_02. <li data-bbox="320 1077 1220 1368">• Mr Maticka suggested that the Market Rules could be simply amended to reduce the lower limit on Balancing Gate Closure from two hours to 30 minutes. This would allow AEMO to implement a 90-minute gate closure in the short term, and then be able to reduce the gate closure further at its discretion. Mr Stevens agreed this would be a simple rule change. Mr Gaston agreed but considered the upper limit (currently six hours) should also be reduced. <li data-bbox="320 1391 1220 1682">• Mr Gaston noted that AEMO's alternative proposal did not address Synergy's concerns about its gate closure times. Mr Maticka replied that AEMO was neutral on this matter. Mr Bargmann indicated that Synergy would continue to raise its concerns in submissions on RC_2017_02 and any alternative proposal. There was some discussion about how Synergy's gate closure times should be affected by a change to Balancing Gate Closure. <li data-bbox="320 1704 1220 1771">• There was some discussion about who might take responsibility for developing any alternative Rule Change Proposal. <li data-bbox="320 1794 1220 1971">• The Chair noted that RCP Support would continue to progress the open Rule Change Proposals using the previously agreed prioritisation. If an alternative Rule Change Proposal was submitted then it would be assigned an urgency rating and prioritised in accordance with the Panel's framework for Rule 	

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	Change Proposal prioritisation and scheduling (prioritisation framework).	
8(b)	Update on Outage Rule Change Proposals (RC_2013_15 and RC_2014_03)	
	Ms Laidlaw confirmed that the proposed workshop for RC_2013_15 was scheduled for Monday 17 September 2018.	
	Ms Laidlaw advised that the slides for the workshop, which would be circulated in advance, would be used as a guide for the discussion rather than as a formal presentation. To save time, Ms Laidlaw asked stakeholders attending the workshop to review the Rule Change Proposal in advance due to the number and complexity of issues covered in the proposal.	
	Ms Laidlaw noted that AEMO was yet to advise when it could make resources available to consider the IT implementation options for RC_2014_03. AEMO had however contacted Western Power about exploring options to do minor work on the System Management Market Information Technology System (SMMITS) to support the implementation of RC_2013_15 before the transfer of SMMITS to AEMO as part of the System Management System Transfer project.	
	RCP Support intended to prioritise development of a call for further submissions for RC_2013_15, in the expectation that this would allow AEMO sufficient time to undertake the required investigation of IT options for RC_2014_03.	
9	Roles in the Market	
	The Chair noted that the MAC, as part of its work on the Issues List, commenced a preliminary review of roles in the market on 9 May 2018. In preparation for the review, MAC members and observers provided details of their issues to RCP Support for collation. The PUO subsequently reviewed these issues and identified those that will be covered by the WEM Reform Program.	
	Mr Richard Cheng led a review of the remaining issues submitted by MAC members and observers. The issues are listed in Table 1 of the meeting paper for this agenda item.	
	Issue 1 (responsibility for setting document retention requirements and confidentiality statuses):	
	<ul style="list-style-type: none"> Mr Cheng noted that these had already been included in the Issues List as Potential Rule Change Proposals (issues 44 and 45). 	
	Issue 2 – (Market Procedure for conducting the Long Term PASA (clause 4.5.14)):	

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	<ul style="list-style-type: none"> The MAC supported inclusion of the issue in the Issues List as a Potential Rule Change Proposal with an urgency rating of Low. Mrs Papps asked whether the obligation on AEMO under clause 4.5.14 to determine the ERA's process for conducting its reviews was a manifest error in the Market Rules. Ms Laidlaw replied that while the current arrangement might be a manifest error the solution was not manifestly obvious, as several different alternative arrangements were feasible. <p>Mr Maticka asked whether there was any suggestion of who might take the lead in developing Rule Change Proposals for the issues discussed. Ms Laidlaw replied that the original intention of the Issues List was to allow parties to "test the water" on ideas for rule changes, and also to provide an opportunity for parties to work together to develop Rule Change Proposals. However, to date there had been few volunteers offering to develop Rule Change Proposals. Ms Laidlaw noted there was no problem with the issues remaining on the Issues List until such time as a volunteer decided to progress them further.</p> <p>Issues 8 (new roles and functions such as those relating to Distribution System Operation and microgrids), 13 (responsibility for development of a road map for the market), 14 (Western Power role in grid transformation) and 20 (Western Power's role in grid transformation):</p> <ul style="list-style-type: none"> the MAC agreed to delete these issues as they were covered elsewhere in the Issues List and/or fell within the scope of the WEM Reform Program. <p>Issue 9 (whether agencies should be empowered, resourced and required to initiate and pursue any rule change they think proper):</p> <ul style="list-style-type: none"> the MAC agreed to delete the issue. Mr Martin noted that the underlying concern appeared to be about a lack of action to address issues raised in market reviews. Mr Martin considered the PUO had a responsibility to progress certain changes and noted that the ERA can also develop Rule Change Proposals. <p>Issue 16 (agility to respond to market reform drivers):</p> <ul style="list-style-type: none"> the MAC agreed to delete the issue, as there was little support for reducing the minimum consultation period for Procedure Change Proposals below 20 Business Days. 	
10	Constrained Off Payments	
	<p>The Chair noted that during the previous week Kleenheat representatives met with RCP Support about how to raise their concerns regarding recent high levels of constrained off payments. Following this discussion, Kleenheat acted on RCP Support's</p>	

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	<p>suggestion and submitted the letter included in the meeting papers for discussion by the MAC.</p> <p>Ms Laidlaw noted that the issue was not new and the former Independent Market Operator (IMO) had developed a Pre-Rule Change Proposal to prevent unwarranted constrained off payments. The IMO had not progressed the proposal further due to the previous Minister's freeze on the progression of Rule Change Proposals during the Electricity Market Review.</p> <p>Ms Laidlaw suggested that a central question for discussion was what level of compensation was appropriate to be paid to generators that are constrained off under different circumstances, e.g. system normal, in response to a network outage, or to resolve a system security issue; and whether the appropriate level of compensation was different under different circumstances.</p> <p>The Chair invited Ms Rebecca Banks to speak about Kleenheat's concerns. Ms Banks explained that Kleenheat was surprised by the very large constrained off costs in its March 2018 invoice, and was further surprised when its investigations determined the method used to calculate constrained off compensation amounts.</p> <p>Ms Banks described the compensation amounts as a "lotto win" for the generators involved, and considered the calculation method was inconsistent with the Wholesale Market Objectives. In particular, the resulting costs were inefficient and actively discouraged retail competition. Ms Banks considered that there was a very high potential, if the relevant constraints were to apply for a long period of time, for the costs to bankrupt a retailer or, if the payments are passed through, to bankrupt an end-customer.</p> <p>Ms Banks also noted that retailers received very little information or advance warning about these payments. Ms Banks considered that the payments should be able to be predicted by retailers in terms of quantum and certainty well before the amounts appear on a monthly invoice.</p> <p>The Chair invited comments from MAC members and observers on the issues raised by Kleenheat. The following points were discussed.</p> <ul style="list-style-type: none"> • Mr Sharafi agreed with Ms Banks that there was an issue that required resolution, and considered there were many ways to fix the problem. Mr Sharafi did not think it was necessary to determine the solution in the meeting, but did consider that the MAC needed to acknowledge there was an issue and that somebody needed to develop a Rule Change Proposal to resolve it. • In response to a question from Mr Cremin, Ms Laidlaw clarified that under the Market Rules a Non-Scheduled Generator would still receive constrained off compensation for out-of-merit 	

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	<p>dispatch even if it updated its Balancing Submissions to reduce its forecast output quantity. Mr Cremin suggested that this constituted a manifest error because there was clearly no intention to pay Intermittent Generators that are unable to generate due to a network constraint. Mr Gaston considered that the payments were excessive and agreed with Mr Cremin that the current arrangements were a manifest error in the Market Rules.</p>	
	<ul style="list-style-type: none"> • Ms Laidlaw commented that if a generator knew it would be fully curtailed by a network outage for a specific period of time, it was expected to report a Consequential Outage and not participate in the Balancing Market. However, there were often situations in which a generator knew it was likely to be curtailed to some extent over a period, but did not know exactly when, by how much and for how long it would be curtailed. These generators still needed to participate in the Balancing Market, which under the current Market Rules made them eligible to receive constrained off payments. • Mr Cremin considered that it could take a long time to resolve the issue using the rule change process due to the technical nature of the problem, and suggested the MAC consider what other options were available. As an example, Mr Cremin suggested that the ERA might consider whether the very low offer prices that were causing the large payments constituted a market power issue. Dr Robins replied that an ERA compliance investigation into low offer prices would not provide a quick solution to the problem, as the investigation would require assessment of matters such as good faith bidding, which would be a lengthy process to ensure it was done properly. Dr Robins considered that there were probably other, quicker ways to address the issue. • Ms Laidlaw noted that the payments were usually caused by System Management placing a constraint on an Intermittent Generator in the Real-Time Dispatch Engine because of a network outage. Ms Laidlaw questioned whether in these circumstances, where none of the generators involved had firm network access rights, the appropriate level of compensation that consumers should pay to a generator was an amount based on their short run marginal cost or zero. 	
	<p>Mr Cremin considered that any compensation in these circumstances should be covered by the commercial agreement between the generator and Western Power, not the market. Mr Stevens noted that Market Participants could protect themselves from the commercial impacts of being constrained off for extended periods through business interruption insurance. Mr Stevens considered that when Market Participants connected</p>	

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	<p>to the network they accepted that occasionally they would be constrained by a network outage and they would not receive any compensation for this. The current constrained off payments were not appropriate and not the intent of the market.</p>	
	<ul style="list-style-type: none"> • There was general agreement to include the issue in the Issues List as a Potential Rule Change Proposal with an urgency rating of High. • Ms Stone suggested that the IMO's Pre-Rule Change Proposal: Outages and the Application of Availability and Constraint Payments to Non-Scheduled Generators (PRC_2013_16) could be used as a starting point for the development of a Rule Change Proposal. Ms Laidlaw replied that while this was an option PRC_2013_16 involved extensive changes to AEMO's IT systems, and in the current circumstances it would be quicker and cheaper if an option could be found that avoided the need for IT changes. • Ms Laidlaw asked who would be interested in helping to develop a Rule Change Proposal to address the issue. Mr Bargmann noted that he was advised by Mr Ben Williams that the problem will be addressed in part by an open Rule Change Proposal, i.e. when there is certainty about the duration of outages and a Non-Scheduled Generator is required to nominate down to zero. Ms Laidlaw replied that RCP Support would be interested in discussing the matter with Mr Williams; and Mr Bargmann agreed to facilitate this discussion. • Mr Cremin suggested that the relevant generators could do the right thing during network outages and not bid at -\$1000/MWh. Mr Bargmann replied that Synergy had in fact changed its behaviour with respect to one of its solar farms for precisely that reason, increasing its offer price on the basis that -\$1000/MWh was gouging and inconsistent with the Wholesale Market Objectives. • In response to a question from Mr Sharafi, Mr Bargmann advised that Synergy would consider developing a Rule Change Proposal to address the issue. • Mr Martin asked whether a rule change would create implementation issues. Ms Laidlaw considered it possible that a simple option could be found that did not require any IT system changes. • Ms Laidlaw suggested that details of monthly constrained on and off payments should be published in the interests of transparency, and asked what restrictions if any existed to prevent the publication of this information. Mr Maticka agreed to report back to the MAC on what information could be published 	

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	<p>under the Market Rules. There was some discussion about the need to report the payments by individual generator, but general agreement that at least the monthly totals should be made available to Market Participants.</p> <ul style="list-style-type: none"> • Ms Banks reiterated her concern that retailers received no warning of upcoming constraint payments before receiving the relevant invoice from AEMO. Mr Maticka offered to investigate and report back to the MAC on what information could be provided to Market Participants early to allow them to predict the size of, and budget for, their constraint payment obligations. There was some discussion about how quickly the information needed to estimate constraint payment amounts could be made available. • Mr Shibli Khan observed that if Western Power was to pay constrained off compensation then the payments would still be funded by the public. There was further discussion about whether any compensation should be provided to a Market Participant by either Western Power or the market when a generator was dispatched down out-of-merit due to a network outage. • In response to a question from Mr Sharafi, Mr Bargmann clarified that the only action he could commit to at the time was to facilitate a discussion with RCP Support and Mr Williams about the extent to which the issue would be resolved by Rule Change Proposals that are currently under development. • The Chair agreed to a request from Mr Gaston to update the MAC once the planned discussion between Synergy and RCP Support had taken place. Ms Laidlaw considered that depending on the outcomes of the discussions with Synergy it might be helpful for RCP Support to organise a workshop with interested stakeholders to discuss the options for the development of a Rule Change Proposal. 	
	<p>Action: Synergy to facilitate a discussion between RCP Support and Synergy representatives, including Mr Ben Williams, regarding Mr Williams' views on the extent to which the issue raised by Kleenheat at the 9 September 2018 MAC meeting regarding excessive constrained off payments will be resolved by Rule Change Proposals that are currently under development.</p>	Synergy
	<p>Action: AEMO to provide clarification to the MAC on what information AEMO is permitted to publish regarding constrained on and constrained off payment amounts under the Market Rules.</p>	AEMO

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	Action: AEMO to investigate and report back to the MAC on what information could be provided to Market Participants early to allow them to predict the size of, and budget for, their constraint payment obligations.	AEMO
	Action: RCP Support to provide an update to MAC members and observers on the outcomes of the proposed discussion between RCP Support and Synergy about the constrained off payment issue raised by Kleenheat at the 9 September 2018 MAC meeting.	RCP Support
11	RCP Support KPIs	
	The MAC noted the update on RCP Support's performance against its KPIs and the results of its stakeholder satisfaction survey for 2017/18.	
	The Chair noted that the survey results indicated general satisfaction with the quality of the rule change and consultation processes, but concerns about the timeliness of RCP Support's processes. The Chair noted that RCP Support was in the process of engaging some additional resources, which would be used to help clear the backlog of Rule Change Proposals and enable the team to be much more responsive on Rule Change Proposals as they are submitted, and also to ensure it was capable of engaging fully with the WEM Reform Program.	
	The Chair also noted that, based on some comments received, there still appeared to be some confusion about how the Panel's prioritisation framework worked. The Panel intended to conduct a review of the prioritisation framework during 2018/19 and would consult with the MAC and the Gas Advisory Board as part of that review. The intention was to publish the prioritisation framework on the Panel's website following the conclusion of this review.	
12	MAC Schedule	
	After some discussion, the MAC agreed that in future MAC meetings should be held every six weeks on a Tuesday morning, starting at 9:30 AM.	
	Action: RCP Support to circulate an updated schedule for MAC meetings for the remainder of 2018/19.	RCP Support

Item	Subject	Action
13	MAC Composition	
	<p>Mr Cheng advised that Mr Simon Middleton resigned from the MAC on 20 August 2018. Mr Middleton's resignation meant that his Market Customer representative position, which was due to expire in February 2019, is now vacant.</p> <p>Mr Cheng explained that the Panel could undertake an appointment process to fill the position or wait until the annual MAC composition review that was scheduled to begin at the end of November 2019. Mr Cheng advised that filling the position early would, assuming the new six-weekly meeting cycle, allow the successful applicant to attend three MAC meetings.</p> <p>The Chair asked whether the MAC wanted RCP Support to run a two-month process to appoint a member for three meetings, or to wait until the next annual MAC composition review. The MAC agreed that the appointment process for Mr Middleton's position should be delayed until the next annual MAC composition review.</p>	
14	General Business	
	<p>The Chair noted that the Panel had requested that he ask MAC members whether there was any interest in the MAC meeting with the Panel itself. The purpose of such a meeting would be to allow MAC members to raise issues directly with the Panel members in an open forum.</p> <p>MAC members did not identify any issues they wished to discuss with the Panel, but indicated they would be happy to attend a meeting with the Panel if one was arranged.</p>	

The meeting closed at 2:35 PM.

Minutes

Meeting Title:	MAC Workshop on Constrained Off Payments
Date:	24 October 2018
Time:	1:30 PM – 2:45 PM
Location:	Training Room 1, Albert Facey House 469 Wellington Street, Perth

Attendees	Class	Comment
Jenny Laidlaw	RCP Support	
Stephen Eliot	RCP Support	
Laura Koziol	RCP Support	
Jake Flynn	Economic Regulation Authority (ERA)	
Shibli Kahn	ERA	
Matthew Martin	Public Utilities Office (PUO)	
Kate Ryan	PUO	From 1:45 PM
Aden Barker	PUO	
Martin Maticka	Australian Energy Market Operator (AEMO)	
Mark Katsikandarakis	AEMO	
Matthew Fairclough	AEMO	
Rebecca Banks	Kleenheat	
Oscar Carlberg	Synergy	
Ben Williams	Synergy	
Paul Arias	Bluewaters Power	
Daniel Kurz	Bluewaters Power	
Patrick Peake	Perth Energy	
William Street	Market Generators (Alinta Energy)	
Steve Gould	Community Electricity	

Slide	Subject	Action
3	Issues with Constrained Off Payments	
	Attendees agreed that the issue to be addressed in this workshop is unpredictable and excessive constrained payments, as experienced in March/April 2018.	

Slide	Subject	Action
	Mr Ben Williams noted that Synergy was of the opinion that the desired outcome should also result in equitable constrained off payments for all Facilities.	
4-5	<p data-bbox="320 416 687 443">Constrained Off Payments</p> <p data-bbox="320 472 1174 719">Ms Jenny Laidlaw clarified that, where a participant knew in advance when and by how much its Facility would be constrained due to an outage of an item of Network equipment (Network Outage), it would usually not bid the constrained capacity into the Balancing Market. However, the participant could not take such action if the timing of the Network Outage or the magnitude of the constraint is uncertain.</p> <p data-bbox="320 748 1139 848">Mr Williams noted that errors by System Management were an additional reason for constrained off payments. Mr Matthew Fairclough clarified that this happened very rarely.</p> <p data-bbox="320 878 1091 936">Attendees agreed that the high constrained off payments in March/April 2018 were related to Network Outages.</p>	
6-8	<p data-bbox="320 981 839 1008">When is Compensation Appropriate?</p> <p data-bbox="320 1037 1193 1104">Attendees agreed that Facilities have no firm network access rights during periods when they are affected by a Network Outage.</p> <p data-bbox="320 1133 1182 1339">Mr Williams noted that, if System Management constrained a Facility off due to a Network Outage, the constrained quantity may be larger than the physical constraint of the Network Outage. There was some discussion about the effect of inaccuracies in System Management's dispatch process on the magnitude of constraints during Network Outages.</p> <p data-bbox="320 1368 1187 1426">Mr Patrick Peake considered that there should be more pressure on Western Power to make Network Outages as short as possible.</p> <p data-bbox="320 1456 1139 1556">Mr Peake noted that, where compensation for constrained off dispatch was found reasonable, the amount could be restricted based on short run marginal costs.</p> <p data-bbox="320 1585 1163 1686">Mr Peake also expressed his opinion that Western Power should not be allowed to connect Facilities so that multiple Facilities together become the largest contingency.</p>	
9	<p data-bbox="320 1731 842 1758">How to Achieve the Desired Outcome</p> <p data-bbox="320 1787 1182 1955">Ms Laidlaw considered that a Rule Change Proposal focusing on removing constrained off payments related to Network Outages could be progressed relatively quickly, but the inclusion of additional issues in that proposal could significantly slow down the rule change process.</p>	

Slide	Subject	Action
10	Options Considered	
	Ms Laidlaw noted that RCP Support had asked attendees for any additional options when sending out the slide pack but no alternatives had been provided.	
11	Option 1 – Consequential Outage	
	Attendees agreed that Option 1 would require significant rule and system changes and therefore should not be further considered.	
12	Option 2 – Change Non-Scheduled Generator output estimate	
	There was some discussion whether a Scheduled Generator that was dispatched down due to a Network Outage is required to log a Consequential Outage. Ms Laidlaw indicated that this was not clear for cases where the Facility was affected indirectly by the Network Outage.	
13	Option 3 – Operating Instruction	
	Mr Paul Arias asked if AEMO's systems were currently able to issue Operating Instructions retrospectively. Mr Fairclough confirmed that this was the case.	
	Mr Arias and Mr William Street noted that it would be important to avoid imposing any unnecessary administrative burden on Market Participants for this solution (e.g. participants currently have to respond to Operating Instructions via email, which would not make sense for retrospective Operating Instructions). Ms Laidlaw agreed that this should be avoided.	
	Mr Mark Katsikandarakis confirmed that AEMO would only need to make minor systems changes to implement this solution.	
14	Additional Options	
	Attendees did not raise any additional options to address the issue.	
15	Making Constrained Off Payments More Predictable	
	Mr Katsikandarakis noted that the only information related to constrained off payments that is currently available to Market Participants is published in Dispatch Advisories. AEMO is considering publishing the Theoretical Energy Schedule for each Market Participant, but would need to first consult with Market Participants and other stakeholders.	
	Ms Laidlaw asked if AEMO intended to estimate constrained off payments <u>as part of the broader changes proposed by AEMO to the to determine Market Participants' Outstanding Amounts calculation</u> , and if this information could be used to publish estimates of constrained off payments earlier. Mr Katsikandarakis	

Slide	Subject	Action
	<p>confirmed this was the case and that the Outstanding Amount calculations should provide participants with a good estimate of their upcoming constrained off payment liabilities. Ms Laidlaw noted that this would solve the problem of predictability of constrained off payments, but suggested it would still be valuable to assess what other information about constrained off payments could be published to inform participants. However, the cost and practicality of any such measures would need to be assessed, given that the improvements to the Outstanding Amount calculation would also solve the problem.</p> <p><u>Mr Katsikandarakis noted AEMO would revert to the MAC with a response to its action on this matter.</u></p>	
16	<p>Summary and Next Steps</p> <p>Attendees agreed that:</p> <ul style="list-style-type: none"> • a Rule Change Proposal should be developed to remove constrained off payments to Market Generators that are dispatched down by System Management because of a Network Outage; • Option 3 is the preferred solution to achieve this outcome; and • the other issues related to constrained off compensation should be included in the MAC Market Rules Issues List. <p>Mr Matthew Martin volunteered for the PUO to develop a Rule Change Proposal to implement Option 3 and attendees supported this approach. Mr Stephen Eliot noted that the most efficient way to progress the proposal would be to discuss it as a Pre-Rule Change Proposal with the MAC, as this would allow the MAC to identify and address any issues with the proposal before its formal submission. Mr Martin advised that the PUO would aim to provide a Pre-Rule Change Proposal for the MAC meeting scheduled for 20 November 2018.</p> <p>Action: PUO to develop a Pre-Rule Change Proposal for consultation with the MAC.</p> <p>There was some discussion about Market Participants' bidding behaviour and whether it would be appropriate to alter this behaviour until a Rule Change Proposal could be implemented.</p> <p><u>There was also some discussion about whether it was appropriate to discuss bidding behaviour at this workshop.</u></p>	PUO

The workshop ended at 2:45 PM.

Workshop on Constrained Off Payments for Potential Rule Change Proposal

24 October 2018

Workshop aims

Discuss and agree on

- The issue to be addressed
- The scope of a potential Rule Change Proposal
- Options for the proposed solution and the preferred option
- Next steps

Issues with constrained off payments

Issue: unpredictable and excessive constrained off payments

Desired outcome:

- Remove the potential for excessive constrained off payments
- Make constrained off payments more predictable

There are different reasons for constrained off payments, maybe not all issues can be addressed

Constrained off payments

Constrained off payments

= Constrained quantity * (Balancing Price - offer price)

Due to:

- Network outages
- Forecast errors
- Security/network constraint under system normal conditions

Constrained off payments

High constrained off payments in March/April related to constrained off dispatch due to network outages

- With negative prices down to $-\$1,000$, payments can get very high
- Payments don't necessarily reflect appropriate compensation

Government reform program is likely to remove constrained off payments with introduction of constrained network access and ex-ante pricing

But: Problem is of a sufficient scale to warrant resolution prior to the introduction of constrained access

When is compensation appropriate?

Network outage (system non-normal conditions)

Affected Facilities have no firm access rights

There appears to be no reason why consumers should pay for compensation to Generators under these circumstances

Removal of constrained off compensation under these circumstances

- Consistent with direction of WEM Reform Program
- No conflict with current Government policy
- Appears consistent with Wholesale Market Objectives

When is compensation appropriate?

Forecasting error

Constrained off compensation appears reasonable given ex-post pricing

- How much compensation is reasonable is more complex to assess and changes may require policy direction
- Justification for constrained off compensation will disappear with ex-ante pricing

When is compensation appropriate?

Network and security constraints not due to a network outage

- Grey area because of interaction with firm access
 - More complex to assess if compensation is appropriate and any rule changes may require policy direction
- Where compensation is appropriate, separate question of how much compensation is reasonable
 - More complex to assess what is reasonable and any rule changes may require policy direction
- Issue likely to increase if generators connect in a way affecting Spinning Reserve Requirements (several generators form largest contingency)
- Justification for constrained off compensation will disappear with constrained network access

How to achieve desired outcome

Main issue appears to be constrained off compensation due to network outage

- Rule Change Proposal focusing on this main issue can be progressed relatively quickly and at minimum cost

Additional issues: various compensations under system normal conditions

- Addressing these issues may significantly delay rule change process
- Suggest not progressing as part of the same Rule Change Proposal

Options considered

AEMO, the PUO and RCP Support have considered 3 main options to remove constrained off payments caused by network outages

Option 1 – Consequential Outage

Option 2 – Change NSG output estimate

Option 3 – Operating Instruction

Option 1 – Consequential Outage

Involves two components

- Requiring logging of Consequential Outage or Forced Outage for constrained off dispatch due to network outage
- Change TES calculation for NSGs to account for outages, similar to Scheduled Generator TES calculation

Would require

- Significant rule change development work
- Significant system changes

Option 2 – change NSG output estimate

Require that AEMO's estimate of NSG generation does not exceed the actual output of the Facility for NSGs that are constrained off due to network outage

Would reduce constrained off compensation to zero

Would require

- Medium rule change development work
- No system changes

Problem with this option

- Addresses issue only for NSGs, not for Scheduled Generators

Option 3 – Operating Instruction

AEMO to issue an Operating Instruction if Facility is constrained off due to network outage

- No constrained off payments if Facility received Operating Instruction (for the relevant Trading Interval)
- Minor Rule change development work
- Minimal system changes expected (AEMO to confirm)
- Addresses issue for NSGs and Scheduled Generators

AEMO, the PUO and RCP Support agree that this is a workable option and the best of the three considered

Additional Options

RCP Support is interested in any additional options that stakeholders may identify

If you have an additional option please provide us with details via email so we can circulate them to attendees before the meeting

Making constrained off payments more predictable

AEMO has open MAC action items to investigate and report on

- Options to provide early warning to Market Customers of their constraint payment costs
- What information can be published about constraint payments under the current Market Rules

Removing the main source of high constraint payments reduces the need for advance warning

Complex publication requirements could delay implementation of a Rule Change Proposal

Summary and next steps

Do attendees agree on the scope of a Rule Change Proposal?

If so, do the attendees have a preferred option?

Agree on responsibility for development of the Rule Change Proposal and timeframe

- RCP support is available to provide advice
- AEMO will be available to assess system impact

If desired to expedite

- MAC meeting on 20 November 2018 – can discuss status or Pre-Rule Change Proposal
- Pre-Rule Change Proposal can also be circulated to MAC out of session

Agenda Item 4: MAC Action Items

Meeting 2018_11_20

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

Item	Action	Responsibility	Meeting Arising	Status
19/2017	The PUO to consult with AEMO and RCP Support on how to address the concerns raised by MAC members about the 2017/03 Amending Rules and develop a proposal for consideration at the next MAC meeting.	PUO/ AEMO/ RCP Support	August 2017	Open To be progressed as part of the WEM Reform Program.
33/2017	The PUO to review the current list of Protected Provisions in the Market Rules to determine if any of the provisions no longer need to be Protected Provisions.	PUO	November 2017	Open Held over to early 2019.

Item	Action	Responsibility	Meeting Arising	Status
16/2018	AEMO to provide an update to the MAC on the timelines for the Procedure Change Process to modify the Outstanding Amount calculation.	AEMO	August 2018	Closed AEMO provided a response at the 12 September 2018 MAC meeting.
17/2018	RCP Support to liaise with MAC members and observers about their availability for a workshop to review the proposed amendments in the Rule Change Proposal: Outage Planning Phase 2 – Outage Process Refinements (RC_2013_15); and to hold that workshop as soon as practicable.	RCP Support	August 2018	Closed MAC workshops were held on 17 September 2018, and 7 November 2018.
19/2018	AEMO to provide clarification to the MAC on the components of the additional \$3.6 million expenditure on rule changes reported in its third supplementary AR4 submission.	AEMO	August 2018	Closed AEMO provided a response at the 12 September 2018 MAC meeting.
20/2018	AEMO to provide clarification to the MAC on the depreciation timeframe for the proposed additional 2018/19 capital expenditure in its third supplementary AR4 submission.	AEMO	August 2018	Closed AEMO provided a response at the 12 September 2018 MAC meeting.
21/2018	RCP Support to amend the minutes of the 8 August 2018 meeting to reflect the agreed changes and publish on the Rule Change Panel's website as final.	RCP Support	September 2018	Closed The revised minutes were published on 13 September 2018.

Item	Action	Responsibility	Meeting Arising	Status
22/2018	Synergy to facilitate a discussion between RCP Support and Synergy representatives, including Mr Ben Williams, regarding Mr Williams' views on the extent to which the issue raised by Kleenheat at the 9 September 2018 MAC meeting regarding excessive constrained off payments will be resolved by Rule Change Proposals that are currently under development.	Synergy	September 2018	Closed Synergy and RCP Support met on 9 October 2018, and agreed that the Pre-Rule Change Proposal that Synergy was thinking of (PRC_2013_16) would involve fairly extensive IT changes that are likely to make its progression problematic at this time.
23/2018	AEMO to provide clarification to the MAC on what information AEMO is permitted to publish regarding constrained on and constrained off payment amounts under the Market Rules.	AEMO	September 2018	Open
24/2018	AEMO to investigate and report back to the MAC on what information could be provided to Market Participants early to allow them to predict the size of, and budget for, their constraint payment obligations.	AEMO	September 2018	Open
25/2018	RCP Support to provide an update to MAC members and observers on the outcomes of the proposed discussion between RCP Support and Synergy about the constrained off payment issue raised by Kleenheat at the 9 September 2018 MAC meeting.	RCP Support	September 2018	Closed RCP Support provided an update by email on 10 October 2018.

Item	Action	Responsibility	Meeting Arising	Status
26/2018	RCP Support to circulate an updated schedule for MAC meetings for the remainder of 2018/19.	RCP Support	September 2018	Closed A revised schedule for MAC meetings is provided at Agenda Item 11.
27/2018	PUO to develop a Pre-Rule Change Proposal regarding constrained off compensation for Network Outages for consultation with the MAC	PUO	MAC workshop 24 October 2018	Closed The PUO developed the Pre-Rule Change Proposal which is tabled for discussion at the 2018_11_20 MAC meeting – see Agenda Item 8(d).

Agenda Item 5: MAC Market Rules Issues List Update

20 November 2018

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

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

Recommendation:

RCP Support recommends that the MAC:

- note the updates to the Issues List;
- consider whether issue 11 should be either closed or placed on hold pending the outcomes of the Minister's WEM reform program;
- consider whether issue 12 should be closed;
- note that issues 20/38 and 44 will be closed;
- note that issue 48 will be closed;
- consider whether the following issues should be included in the Issues List, as proposed at the 24 October 2018 MAC workshop on constrained off payment issues, and if so, whether they should be included as potential Rule Change Proposals or issues on hold:
 - whether the method used to calculate constrained off compensation should be amended to better reflect the actual costs incurred by Market Generators;
 - whether the Minimum STEM Price (currently $-\$1,000/\text{MWh}$) should be increased to reduce the potential magnitude of constrained off compensation (e.g. by restoring the former practice of setting the Minimum STEM Price to the Maximum STEM Price multiplied by -1); and
 - how to manage potential future scenarios in which multiple generating units that are connected to the same line constitute the largest credible contingency, without imposing excessive constraint payment costs on Market Customers; and
- after taking into account AEMO's advice on action item 24/2018, consider whether an issue should be included in the Issues List about the provision of timely advance notice to Market Customers of their upcoming constraint payment liabilities.

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

20 November 2018

Table 1 – Potential Rule Change Proposals

Id	Submitter/Date	Issue	Urgency and Status
20/38	Bluewaters and ERM Power November 2017	<p>Spinning Reserve Cost Allocation Model – block changes</p> <p>Appendix 2 of the Market Rules deals with Spinning Reserve cost allocation. The boundary between Block 1 and 2 is set at 200 MW. This, in conjunction with the sizes of the existing generating units in the WEM, creates a perverse incentive for some generating units to not make capacity available above 200 MW, because doing so is likely to subject the generating units to a substantial increase in Spinning Reserve costs.</p> <p>Bluewaters recommended reviewing the value of the boundary between Block 1 and 2 of the Spinning Reserve cost allocation model. Bluewaters considered that addressing the perverse incentive is likely to give a more efficient dispatch outcome. This is likely to give downwards pressure to wholesale electricity prices, hence promoting economic efficiency, and in turn promoting the Wholesale Market Objectives.</p> <p>As an alternative, the MAC indicated support for considering a full runway Spinning Reserve cost allocation model (see issue 44).</p>	<p>Panel rating: Medium, but likely to be parked pending progression of the preferred full runway model by the PUO (i.e. issue 44).</p> <p>MAC ratings:</p> <p>Do Not Progress: Alinta, Peter Huxtable Prefer full runway: AEMO Low: Geoff Gaston High: Bluewaters</p> <p>Status:</p> <p><u>The PUO has submitted a Pre-Rule Change Proposal (PRC) regarding this issue for consideration by the MAC – see Agenda Item 8(c). As a result, Issue 20/38 will be closed.</u></p>
31	Synergy November 2018	<p>LFAS Report</p> <p>Under clauses 7A.2.9(b) and 7A.2.9(c) of the Market Rules, Synergy is obligated to compile and send the LFAS weekly report to AEMO based on the LFAS data for each Trading Interval supplied to Synergy by System Management. Given that System Management is now part of AEMO, it seems reasonable to remove this obligation on Synergy to</p>	<p>Panel rating: Low, but OK to progress using the Fast Track Rule Change Process</p> <p>MAC ratings:</p> <p>Low: Alinta, Bluewaters</p>

Table 1 – Potential Rule Change Proposals

Id	Submitter/Date	Issue	Urgency and Status
		reduce administrative burden. This rule change supports Wholesale Market Objective (a).	Medium: Geoff Gaston, AEMO High: Peter Huxtable Status: This issue has not been progressed.
44	MAC November 2017	Full Runway Spinning Reserve Cost Allocation Model Implementation of a full runway model for Spinning Reserve cost allocation (as an alternative solution to the option proposed in issue 20/38).	Panel rating: Medium MAC ratings: Medium: Alinta, Peter Huxtable High: AEMO Status: The PUO has submitted a PRC regarding this issue for consideration by the MAC – see Agenda Item 8(c). As a result, Issue 44 will be closed.
45	AEMO May 2018	Transfer of responsibility for setting document retention requirements 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.	Panel rating: Low MAC ratings: Low Status: Waiting on the ERA to provide its position on the proposal, but this is a low priority issue for the ERA.
46	AEMO May 2018	Transfer of responsibility for setting confidentiality statuses AEMO suggested that responsibility for setting confidentiality statuses (clauses 10.2.1 and 10.2.3 of the Market Rules) should move from	Panel rating: Low MAC ratings: Low

Table 1 – Potential Rule Change Proposals

Id	Submitter/Date	Issue	Urgency and Status
		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.	Status: Waiting on the ERA to provide its position on the proposal, but this is a low priority issue for the ERA.
47	AEMO September 2018	<p><u>Market Procedure for conducting the Long Term PASA (clause 4.5.14)</u></p> <p><u>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.</u></p> <p><u>AEMO considers that its Market Procedure should not cover the ERA’s review, and the ERA should be able to independently scope the review. As such, AEMO recommends removing this requirement from the head of power in clause 4.5.14 of the Market Rules.</u></p>	<p><u>Panel rating:</u> Low</p> <p><u>MAC ratings:</u> Low</p> <p><u>Status:</u> <u>This issue has not been progressed.</u></p>
48	Kleenheat September 2018	<p><u>Constrained Off Payments</u></p> <p><u>Kleenheat has identified a flaw in the Market Rules that allows Non-Scheduled Generators to earn large constrained off payments. Concerns relate to:</u></p> <ul style="list-style-type: none"> <u>• the method used to calculate constrained off payments; and</u> <u>• the lack of information available to Market Customers to enable them to forecast the expected cost of constrained off payments.</u> <p><u>Kleenheat raised its concerns in a letter to the MAC that was discussed at the 12 September 2018 MAC meeting.</u></p>	<p><u>Panel rating:</u> High</p> <p><u>MAC ratings:</u> High</p> <p><u>Status:</u> <u>The MAC held a workshop to discuss this issue on 24 October 2018 – see the minutes under Agenda Item 3(b).</u> <u>The PUO has submitted a PRC regarding this issue for consideration by the MAC – see Agenda Item 8(d). As a result, Issue 48 will be closed.</u></p>

Notes:

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

Table 2 – Broader Issues

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

Table 2 – Broader Issues

Id	Submitter/Date	Issue	Urgency and Status
11	AEMO November 2017	<p>Whole-of-system planning oversight:</p> <p>As explained in AEMO’s submission to the ERA’s review of the WEM, AEMO considers the necessity of the production of an annual, independent Integrated Grid Plan to identify emerging issues and opportunities for investment at different locations in the network to support power system security and reliability. This role would support AEMO’s responsibility for the maintenance of power system security and will be increasingly important as network congestion increases and the characteristics of the power system evolve in the course of transition to a predominantly non-synchronous future grid with distributed energy resources, highlighting new requirements (e.g. planning for credible contingency events, inertia, and fast frequency response).</p> <p>This function would support the achievement of power system security and reliability, in line with Wholesale Market Objective (a).</p>	<p><u>This issue was initially flagged for consideration as part of the preliminary review of roles in the market.</u></p> <p><u>However, the PUO has since advised that the issue will be covered as part of the Minister’s WEM reform program.</u></p> <p><u>The MAC is asked to consider whether the issue should be closed or placed on hold pending the outcomes of the Minister’s WEM reform program.</u></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). <u>Potential changes to clause 4.5.14 have also been listed as a Potential Rule Change Proposal (issue 47).</u></p> <p><u>The remaining issues were not raised for inclusion in the preliminary review of roles in the</u></p>

Table 2 – Broader Issues			
Id	Submitter/Date	Issue	Urgency and Status
			<p><u>market completed by the MAC in September 2018.</u></p> <p><u>The MAC is asked to consider whether this issue should be closed.</u></p>
16	Bluewaters November 2017	<p>Behind the Meter (BTM) generation is treated as reduction in electricity demand rather than actual generation. Hence, the BTM generators are not paying their fair share of the network costs, Market Fees and ancillary services charges.</p> <p>Therefore, the non-BTM Market Participants are subsidizing the BTM generation in the WEM. Subsidy does not promote efficient economic outcome.</p> <p>Rapid growth of BTM generation will only exacerbate this inefficiency if not promptly addressed.</p> <p>Bluewaters recommends changes to the Market Rules to require BTM generators to pay their fair share of the network costs, Market Fees and ancillary services charges.</p> <p>This is an example of a regulatory arrangement becoming obsolete due to the emergence of new technologies. Regulatory design needs to keep up with changes in the industry landscape (including technological change) to ensure that the WEM continues to meet its objectives.</p> <p>If this BTM issue is not promptly addressed, there will be distortion in investment signals, which will lead to an inappropriate generation facility mix in the WEM, hence compromising power system security and in turn not promoting the Wholesale Market Objectives.</p>	To be considered in the preliminary reviews of behind-the-meter issues and the basis for allocation of Market Fees.

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.
29	Kleenheat November 2017	<p>Provide greater clarity on the respective roles and responsibilities for each regulatory body (PUO, Rule Change Panel, ERA and AEMO) as they relate to and impact the operation and application of the Market Rules. Greater clarity is required to ensure no conflicts of interest arise (perceived or real) and the risk of costs as well as duplicated roles and responsibilities is minimised.</p> <p>As an example, the time involved in enforcing the Market Rules, such as the Vinalco investigation - the Market Rules are compromised if their enforcement is not efficient and timely.</p>	<u>Closed – the MAC agreed to close this issue at its 12 September 2018 meeting.</u>

Table 2 – Broader Issues			
Id	Submitter/Date	Issue	Urgency and Status
30	Synergy November 2017	<p>Reserve Capacity Mechanism</p> <p>Synergy would like to propose a review of Market Rules related to reserve capacity requirements and reserve capacity capability criteria to ensure alignment and consistency in determination of certain criteria. For instance:</p> <ul style="list-style-type: none"> • assessment of reserve capacity requirement criteria, reserve capacity capability and reserve capacity obligations; • IRCR assessment; • Relevant Demand determination; • determination of NTDL status; • Relevant Level determination; and • assessment of thermal generation capacity. <p>The review will support Wholesale Market Objectives (a) and (d).</p>	To be considered in the preliminary review of the Reserve Capacity Mechanism.
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 day time 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</p>	To be considered in the preliminary reviews of behind-the-meter issues and the basis for allocation of Market Fees.

Table 2 – Broader Issues

Id	Submitter/Date	Issue	Urgency and Status
		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.	
39	Alinta Energy November 2017	<p>Commissioning Test Process</p> <p>The commissioning process within the Market Rules and PSOP works well for known events (i.e. the advance timings of tests). However the Market Rules and PSOP do not work for close to real time events. There is limited flexibility in the Market Rules and PSOP to deal with the practical and operational realities of commissioning facilities.</p> <p>The Market Rules and PSOP require System Management to approve a Commissioning Test Plan or a revised Commissioning Test Plan by 8:00 AM on the Scheduling Day on which the Commissioning Test Plan would apply.</p> <p>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. 	To be considered in the preliminary review of the Commissioning Tests.

Specific Issues:

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.

Examples for improvements are:

- 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.

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).

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

Table 2 – Broader Issues

Id	Submitter/Date	Issue	Urgency and Status
		<p>management of commissioning processes, timeframes and costs in turn promotes the economically efficient production and supply of electricity.</p> <ul style="list-style-type: none"> • 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): <ul style="list-style-type: none"> ○ 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. ○ Impacts on economic efficiency and efficient entry of new competitors (as outlined above) will potentially lead to the minimisation of the long term cost of electricity supplied. 	

Notes:

- Some issues require further discussion/review before specific Rule Change Proposals can be developed. For these issues, the MAC will:
 - group the issues together where appropriate;
 - determine the order of priority for the grouped Broader Issues;
 - conduct preliminary reviews to scope out the Broader Issues; and
 - refer the Broader Issues to the appropriate body for consideration/development.

- RCP Support will aim to schedule preliminary reviews at the rate of one per MAC meeting, unless competing priorities prevent this.
- Broader Issues will be closed (or moved onto another sub-list) following the completion of the relevant preliminary review and any agreed follow-up discussions on the issue.
- The current list of preliminary reviews is shown in Table 3.

Table 3 – Preliminary Reviews

Review	Status
(1) Review of roles in the market	Issues: 11 and 12. Status: Closed pending final decisions from the MAC on issues 11 and 12 (see table 2).
(2) Behind-the-meter issues	Issues: 2, 16, 35. Status: Preliminary discussion is not yet scheduled.
(3) Forecast quality	Issues: 9. Status: Preliminary discussion is not yet scheduled.
(4) Commissioning Tests	Issues: 39. Status: Preliminary discussion is not yet scheduled. However, on 22 May 2018 AEMO held a workshop on Commissioning Test issues in connection with its proposed changes to the Power System Operation Procedure: Commissioning and Testing.
(5) The basis of allocation of Market Fees	Issues: 2, 16, 23 and 35. Status: Preliminary discussion is not yet scheduled.
(6) The Reserve Capacity Mechanism (excluding the pricing mechanism)	Issues: 1, 3, 4, and 30. Status: Preliminary discussion is not yet scheduled.

Table 4 – Issues on Hold			
Id	Submitter/Date	Issue	Urgency and Status
5	Community Electricity November 2017	Improved definition of SRMC.	On hold pending development of ERA Balancing Market Offer Guidelines.
6	Community Electricity November 2017	Improved definition of Market Power.	On hold pending development of ERA Balancing Market Offer Guidelines.
7	Community Electricity November 2017	Improved definition of the quantity of LFAS (a) required and (b) dispatched.	On hold pending the outcome of the Minister's WEM reform program, 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>On hold pending the outcome of the Minister's WEM reform program.</p> <p>Treatment of storage facilities was considered under the preliminary review of the treatment of storage facilities in the market.</p>

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		Would support new entry, competition and market efficiency; particularly supporting the achievement of Wholesale Market Objectives (a) and (b).	
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. 	On 9 May 2018 the MAC agreed to place this issue on hold for 12 months (until 9 May 2019) to allow time for historical data on dynamic refund rates to accumulate.

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
15/34	Bluewaters and ERM Power November 2017	<p>An interpretation of clause 3.18.7 of the Market Rules is that System Management will not approve a Planned Outage for a generator unless it was available at the time the relevant Outage Plan was submitted. This gives rise to the following issues:</p> <ul style="list-style-type: none"> Operational inefficiency for the generators – it is not uncommon for minor problems to be discovered during a Planned Outage, and addressing these problems may require the Planned Outage period to be marginally extended (by submitting an additional Outage Plan). However, System Management has taken an interpretation of clause 3.18.7 that it is not allowed to approve the Planned Outage period extension because the relevant generator was not available at the time the extension application was submitted. To meet this rules requirement, the generator will need to bring the unit online, apply for a Planned Outage while the unit is online, and subsequently take the unit off-line again only to address the minor problems. Such operational inefficiency could have been avoided if System Management can approve such Planned Outage extension (as long as there is sufficient reserve margin available in the power system during the extended Planned Outage period). Driving perverse incentives in the WEM and compromising market efficiency – to get around the issue discussed above, generators are likely to overestimate their Planned Outage period requirements in their outage applications. This results in higher than necessary projected plant unavailability, which does not promote accurate price signals for guiding trading decisions. This 	On hold pending a final decision on RC_2013_15: Outage Planning Phase 2 – Outage Process Refinements

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<p>misinformation is expected to lead to an inefficient outcome which in turn does not promote the Wholesale Market Objectives.</p> <p>Bluewaters recommendation: clarify in the Market Rules so that System Management can approve a Planned Outage extension application.</p>	
17	Bluewaters November 2017	<p>Under clause 3.21.7 of the Market Rules, a Market Participant is not allowed to retrospectively log a Forced Outage after the 15 day deadline; even if the Market Participant is subsequently found to be in breach of the Market Rules for not logging the Forced Outage on time. This can result in under reporting of Forced Outages, and as a consequence, use of incorrect information used in WEM settlements.</p> <p>Bluewaters recommend a rule change to enable Market Participants to retrospectively log a Forced Outage after the 15 day deadline. If a Market Participant is found to be in breach of the Market Rules by not logging the Forced Outage by the deadline, it should be required to log the outage.</p> <p>Accurately reporting outages will enable the WEM to function as intended and will help meet the Wholesale Market Objectives.</p>	On hold pending a final decision on RC_2014_03: Administrative Improvements to the Outage Process.
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>	On hold pending the outcomes of the ancillary services review being undertaken as part of the Minister's WEM reform program.

Table 4 – Issues on Hold			
Id	Submitter/Date	Issue	Urgency and Status
		Allowing a Market Participant to respond to the draft margin values determination, can serve as a price signal to enable a price discovery process for Spinning Reserve capacity. This is expected to lead to a more efficient economic outcome and in turn promote the Wholesale Market Objectives.	
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>	<p>On hold pending the outcome of the Minister’s WEM reform program.</p> <p>Also, AEMO and the ERA to consider whether any options exist to improve transparency of the current margin values process.</p>

Table 4 – Issues on Hold

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

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<p>This unnecessary duplication is likely to give rise to higher-than-necessary prudential cost burden in the WEM; which creates economic inefficiency that is ultimately passed on the end consumers.</p> <p>Recommendation: amend the Market Rules and/or procedures to eliminate the duplication of prudential burden on Market Participants.</p> <p>The resulting saving from eliminating this unnecessary prudential burden can be passed on to end consumers. This promotes economic efficiency and therefore the Wholesale Market Objectives.</p>	
27	Kleenheat November 2017	Review what should constitute a Protected Provision of the Market Rules, to provide greater clarity over the role of the Minister for Energy.	On hold pending the outcome of a PUO review of the current Protected Provisions in the Market Rules.
28	Kleenheat November 2017	Appropriate rule changes to allow for battery storage. Consultation to decide how the batteries will be treated and classified as generators or not, whether batteries can apply for Capacity Credits and the availability status when the batteries are charging.	On hold pending the outcomes of the Minister's WEM reform program.
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</p>	On hold pending a final decision on RC_2014_03: Administrative Improvements to the Outage Process.

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		of what capacity is really available to the system. This should also assist System Management in generation planning for the system.	
41	IMO November 2017	<p>On 1 September 2017, the Electricity Review Board (Board) published its decision and its reasons for decision regarding the IMO's Application No. 1 of 2016 against Vinalco Energy Pty Ltd (Vinalco) (http://www.edawa.com.au/reviews/12016).</p> <p>Even though the Board found that Vinalco breached clause 7A.2.17 of the Market Rules during the relevant periods and ordered Vinalco to pay two nominal penalties, the Board was sympathetic to the argument that 'constrained-on' dispatch through the Balancing Market was not the most appropriate mechanism in Vinalco's circumstances.</p> <p>The IMO considers that further work is required to consider what changes are required to the Market Rules to mitigate the risk of a similar situation arising again, and what the next steps may be to progress those changes.</p>	On hold pending development of ERA Balancing Market Offer Guidelines
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 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; 	On hold pending the outcome of the Minister's WEM reform program.

Table 4 – Issues on Hold

Id	Submitter/Date	Issue	Urgency and Status
		<ul style="list-style-type: none"> • 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 more rigour is added to the process, provide economic benefits (Wholesale Market Objectives (a) and (d)).</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, 20 NOVEMBER 2018

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	7 August 2018	Nov 2018 (date TBA)
Market Procedures for discussion	<ul style="list-style-type: none"> PSOP: Outages 	Likely agenda <ul style="list-style-type: none"> PSOP: Medium Term PASA PSOP: Short Term PASA PSOP: Commissioning Tests

3. AEMO PROCEDURE CHANGE PROPOSALS

The status of AEMO Procedure Change Proposals is described below, current as at 13 November 2018. Changes since the previous MAC meeting are in **red text**. A procedure change is removed from this report after its commencement has been reported or a decision has been taken not to proceed with a potential Procedure Change Proposal.

ID	Summary of changes	Status	Next steps	Date
AEPC_2018_01: Monitoring and Reporting Protocol	The new Monitoring and Reporting Protocol details how AEMO implements its obligations to support the ERA's monitoring of compliance with the Market Rules.	Submissions closed 26 Feb 2018. Four submissions received.	Prepare Procedure Change Report for ERA consideration	TBA

ID	Summary of changes	Status	Next steps	Date
AEPC_2018_03: PSOP: Communications and Control Systems	The proposed amendments will update the procedure in line with current AEMO standards and add content previously placed in the IMS Market Procedure.	Submissions closed 21 May 2018. One submission received.	Publish further proposed amendments for consultation	Dec 2018/ Jan 2019
AEPC_2018_04: PSOP: Outages	The proposed amendments seek to revise the Procedure in line with current standards and ensure the Procedure complies with obligations.	Submissions closing 12 Nov 2018. Three submissions received.	Prepare Procedure Change Report	Jan 2019
AEPC_2018_05: IMS Interface	The proposed amendments are consequential, arising from the amendment to the PSOP: Communications and Control Systems	Submissions closed 21 May 2018. One submission received.	Prepare Procedure Change Report	Dec 2018/ Jan 2019
AEPC_2018_06: PSOP: Commissioning Tests	The proposed amendments seek to revise the Procedure in line with current standards and ensure the Procedure complies with obligations.	Stakeholder workshop on commissioning issues held 22 May	Further consideration of proposal by APCWG	Dec 2018
PSOP: Medium Term PASA (Procedure Change Proposal number yet to be assigned)	The proposed amendments seek to revise the Procedure in line with current standards and ensure the Procedure complies with obligations.	Considered by APCWG 20 Apr 2018.	Consideration of revised procedure at future APCWG meeting	Dec 2018
PSOP: Short Term PASA (Procedure Change Proposal number yet to be assigned)	The proposed amendments seek to revise the Procedure in line with current standards and ensure the Procedure complies with obligations.	Considered by APCWG 20 Apr 2018.	Consideration of revised procedure at future APCWG meeting	Dec 2018

Agenda Item 8(a): Overview of Rule Change Proposals (as at 13 November 2018)

Meeting 2018_11_20

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

Rule Change Proposals Commenced since the last MAC Meeting

Reference	Submitted	Proponent	Title	Commenced
RC_2018_04	20/08/2018	Rule Change Panel	Manifest Error in the Deferral of Dates for the 2018 Reserve Capacity Cycle	18/10/2018

Approved Rule Change Proposals Awaiting Commencement

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

Rule Change Proposals Rejected since the last MAC Meeting

Reference	Submitted	Proponent	Title	Rejected
None				

Rule Change Proposals Awaiting Approval by the Minister

Reference	Submitted	Proponent	Title	Approval Due Date
RC_2014_06	28/01/2015	IMO	Removal of Resource Plans and Dispatchable Loads	26/11/2018

Formally Submitted Rule Change Proposals

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
Fast Track Rule Change Proposals with Consultation Period Closed						
None						
Fast Track Rule Change Proposals with Consultation Period Open						
None						
Standard Rule Change Proposals with Second Submission Period Closed						
RC_2014_07	22/12/2014	IMO	Omnibus Rule Change	Low	Publication of Final Rule Change Report	05/12/2018 ¹
Standard Rule Change Proposals with Second Submission Period Open						
None						
Standard Rule Change Proposals with First Submission Period Closed						
RC_2013_15	24/12/2013	IMO	Outage Planning Phase 2 – Outage Process Refinements	Medium	Publication of call for further submissions	5/12/2018
RC_2014_03	27/01/2014	IMO	Administrative Improvements to the Outage Process	High	Publication of Draft Rule Change Report	TBD

¹ The deadline for the Final Rule Change Report for RC_32014_07 is 31/12/2018

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
RC_2014_05	02/12/2014	IMO	Reduced Frequency of the Review of the Energy Price Limits and the Maximum Reserve Capacity Price	Medium	Publication of Draft Rule Change Report	TBD
RC_2014_09	13/03/2015	IMO	Managing Market Information	Low	Publication of call for further submissions	5/12/2018
RC_2015_01	03/03/2015	IMO	Removal of Market Operation Market Procedures	Low	Publication of Draft Rule Change Report	7/12/2018
RC_2015_03	27/03/2015	IMO	Formalisation of the Process for Maintenance Requests	Low	Closure of call for further submissions	13/11/2018
RC_2017_02	04/04/2017	Perth Energy	Implementation of 30-Minute Balancing Gate Closure	Medium	Publication of Draft Rule Change Report	TBD
RC_2018_03	01/03/2018	Collgar Wind Farm	Capacity Credit Allocation Methodology for Intermittent Generators	Medium	Publication of Draft Rule Change Report	TBD

Standard Rule Change Proposals with the First Submission Period Open

RC_2018_05	27/09/2018	ERA	ERA access to market information and SRMC investigation process	Medium	Closure of First Submission Period	21/11/2018
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Pre-Rule Change Proposals

Reference	Proponent	Description	Next Step	Submitted
RC_2018_06	PUO	Full Runway Allocation of Spinning Reserve Costs	MAC discussion of Pre-Rule Change Proposal	13/11/2018
RC_2018_07	PUO	Removal of constrained off compensation for Network Outages	MAC discussion of Pre-Rule Change Proposal	13/11/2018

Agenda Item 8(b): Indicative Rule Change Proposal Work Program

Meeting 2018_11_20

The Rule Change Panel (**Panel**) currently has:

- 10 open Rule Change Proposals (**Proposals**) for the Market Rules;¹
- 3 Pre-Rule Change Proposals (**PRCs**) that have been submitted or may be submitted in the near future; and
- 1 open Proposal for the GSI Rules.

RCP Support has developed an indicative work program for these 14 current and potential new Proposals, and the Panel has endorsed this program. RCP Support has discussed the indicative work program with AEMO and the Public Utilities Office (**PUO**), who have agreed to work towards the timelines to the best of their abilities.

RCP Support believes that the timelines in the indicative work program can be met, but there may be delays to one or more Proposals if:

- Market Participants raise significant issues during the submission periods for a Proposal;
- the PUO requires time to formulate policy advice;
- AEMO faces resourcing constraints in providing:
 - assistance to RCP Support in assessing implementation options for a Proposal; and/or
 - assessments of the cost and practicality of implementing a Proposal.

A copy of the indicative work program is provided to the MAC for its information, noting that timing in the work program is subject to change.

Note the following in interpreting the indicative work program:

- dates shown in **blue font** are completed items, and in **red font** are still to be completed;
- CFFS means call for further submissions; and
- RWM means Resolution without Meeting.²

¹ An eleventh Proposal for the Market Rules is nearing completion – the Final Rule Change Report for RC_2014_06 (Removal of Resource Plans and Dispatchable Loads) was published on 29 October 2018. The Amending Rules were sent to the Minister for Approval on 29 October 2018, and the deadline for the Minister to approve the Amending Rules is 26 November 2018 (subject to extension).

² The Panel can approve a CFFS, Draft Rule Change Reports, or Final Rule Change Report outside of meetings via a RWM, but this is generally only appropriate for simple and non-controversial decisions.

Indicative Rule Change Proposal Work Program (13/11/2018)

Reference	Item	Proponent	Process	Urgency	Other Steps / Notes	Proposal		First Consultation	Draft Rule Change Report			Second Consultation	Final Rule Change Report			Protected Provisions		
						Submitted	Published		To Panel	Panel Meeting	Publish		To Panel	Panel Meeting	Publish	Y/N	To Minister	Approval
RC_2013_15	Outage Planning Phase 2 - Outage Process Refinements - Clarify obligations around the outage planning process to provide greater flexibility and transparency.	IMO	Standard	3	MAC workshop: 7/11/2018 Panel: 29/11/2018 CFFS: 5/12/2018 Response: 11/01/2019 31/12/2018 deadline to be extended, likely to 01/04/2019	24/12/2013	24/12/2013		15/02/2019	21/02/2019	22/02/2019	29/03/2019 (5 weeks)	3/05/2019	9/05/2019	10/05/2019	N		
RC_2014_03	Administrative improvements to outage process - Streamline the consequential outage process to make it more transparent and provide greater certainty to market participants on their obligations.	IMO	Standard	2	Workshop: 17/01/2018 AEMO to advise when can assign resources to RC_2014_03 (likely not until February 2019) 31/12/2018 deadline to be extended, likely to 31/12/2019	27/01/2014	27/01/2014		TBD	TBD	TBD	TBD	TBD	TBD	TBD	N		
RC_2014_05	Reduced Frequency of the Review of Energy Price Limits and the Maximum Reserve Capacity Price - Remove the Energy Price Limits (EPL) and Maximum Reserve Capacity Price (MRCP) to a 5 year review and index the EPL (monthly and quarterly) and MRCP (annually) between reviews.	IMO	Standard	3	On hold pending ERA reviews 31/12/2018 deadline to be extended, likely to 31/12/2019	2/12/2014	2/12/2014		TBD	TBD	TBD	TBD	TBD	TBD	TBD	Y	TBD	TBD
RC_2014_07	Omnibus Rule Change - Correct language and punctuation, correct redundant references and titles, and correct clause numbering.	IMO	Standard	4	CFFS: 12/10/2018 Response: 9/11/2018	22/12/2014	22/12/2014				16/03/2015		22/11/2018	29/11/2018	5/12/2018	Y	5/12/2018	4/01/2019
RC_2014_09	Managing Market Information - Introduce a more practical approach to managing market information with a focus on maximising the number of parties to which information is available.	IMO	Standard	4	To Panel: 23/11/2018 Panel: 29/11/2018 CFFS: 05/12/2018 Response: 14/01/2019 31/12/2018 deadline to be extended, likely to 01/03/2019	13/03/2015	13/03/2015		25/01/2019 (RWM)	1/02/2019	6/02/2019	4/03/2019	15/03/2019	21/03/2019	25/03/2018	Y	25/03/2019	26/04/2019
RC_2015_01	Removal of Market Operations Market Procedures - Update a number of market operations Market Procedures to reflect the current arrangements, and to consolidate and streamline documentation.	IMO	Standard	4	To Panel: 12/10/2018 Panel: 18/10/2018 CFFS: 22/10/2018 Response: 09/11/2018	3/03/2015	3/03/2015		22/11/2018	29/11/2018	7/12/2018	30/01/2019	15/02/2019	21/02/2019	25/02/2018	N		
RC_2015_03	Formalisation of the Process for Maintenance Requests - Formalise the process for a Market Customer to apply to AEMO to replace or disregard a period unrepresentative of a Load for determining the Relevant Demand for a Demand Side Program, or assessing a Load's status as Non-Temperature Dependant Load. - An application fee is proposed.	IMO	Standard	4	To Panel: 12/10/2018 Panel: 18/10/2018 CFFS: 23/10/2018 Response: 13/11/2018	27/03/2015	27/03/2015		22/11/2018	29/11/2018	5/12/2018	30/01/2019	15/02/2019	21/02/2019	25/02/2018	Y	28/02/2019	28/03/2019
RC_2017_02	Implementation of a 30-Minute Balancing Gate Closure Proposal to reduce the Balancing Gate Closure period from 2 hours to no more than 30 minutes to allow market participants to better react to forecast changes and bid as accurately as possible.	Perth Energy	Standard	3	31/12/2018 deadline to be extended, likely to 01/07/2019	4/07/2017	12/07/2017	12/06/2017	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N		
RC_2018_03	Capacity Credit Allocation Methodology for Intermittent Generators - Replace the use of peak Load for Scheduled Generation Trading Intervals in the Relevant Level Methodology with use of actual system peak Trading Intervals.	Collgar	Standard	3	On hold pending ERA reviews	1/03/2018	7/03/2018		TBD	TBD	24/04/2019	TBD	TBD	TBD	TBD	N		
RC_2018_05	Market data access and use restrictions and SRMC investigation process - Changes to give the ERA access to additional information, remove restrictions on its use of information, and provide it with authority to bring proceedings to the ERB following an investigation under clause 2.16.9B.	ERA	Standard	3	Achievability of this timeline depends on the nature of submissions The 19/12/2018 deadline for the Draft Rule Change Report will likely need to be extended, likely to 01/03/2019	27/08/2018	3/10/2018	21/11/2018	22/11/2018	29/11/2018	19/12/2018	14/01/2019	25/01/2019 (RWM)	6/02/2019	19/02/2019	Y	19/02/2019	20/03/2019
RC_2018_06	Full Runway Allocation of Spinning Reserve Costs - Replace the current modified runway approach to allocate spinning reserve costs with a full runway approach.	PUO	Standard	3	PRC: 13/11/2018 MAC: 20/11/2018 Timeline TBD following the 20/11/2018 MAC meeting											N		
RC_2018_07	Removal of constrained off compensation for Network Outages Concerns relate to: - the method used to calculate constrained off payments; and - the lack of information available to Market Customers to enable them to forecast the expected cost of constrained off payments.	PUO	Standard	2	MAC Workshop: 24/10/2018 PRC: 13/11/2018 MAC: 20/11/2018 Timeline TBD following the 20/11/2018 MAC meeting	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N		
TBD	Adjusting Non-STEM Settlement Statements using latest available data	AEMO	TBD	TBD	Discussion of PRC at MAC 20/11/2018 prior to formal submission of PRC	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N		
GRC_2018_01	GBB Zones - Remove Zones from the GSI Rules and instead specify them in the Procedures.	AEMO	Standard	4	Panel discussion: 18/10/2018	6/07/2018	16/07/2018		22/11/2018	29/11/2018	30/11/2018	3/01/2019	21/01/2019 (RWM)	25/01/2019	1/02/2019	N		

Agenda Item 8(c): PRC – Full Runway Allocation of Spinning Reserve Costs

Meeting 2018_11_20

1. The Proposal

The Public Utilities Office (**PUO**) has submitted a Pre-Rule Change Proposal (**PRC**) titled Full Runway Allocation of Spinning Reserve Costs. The PUO submitted this PRC following discussions by Market Advisory Committee (**MAC**) regarding allocation of spinning reserve costs as documented in Issues 20/38 and 44 in the MAC Market Rules Issues List (see Agenda Item 5). A copy of the PRC is attached to this paper for review and consideration by the MAC.

2. Recommendation

RCP Support recommends that any Rule Change Proposal stemming from this PRC be progressed using the Standard Rule Change Process.

It is recommended that the MAC discuss the PUO's PRC, including:

- the scope of the proposal;
- the proposed solution;
- the proposed rule change drafting;
- the recommended high urgency rating; and
- the recommendation to progress the subsequent Rule Change Proposal using the Standard Rule Change Process.



Wholesale Electricity Market Rule Change Proposal

Rule Change Proposal ID: RC_2018_06
Date received: *[to be filled in by the RCP]*

Change requested by:

Name:	Zaeen Khan
Phone:	08 6551 4661
Email:	Zaeen.Khan@treasury.wa.gov.au
Organisation:	Public Utilities Office, Department of Treasury
Address:	David Malcolm Justice Centre, 28 Barrack Street, Perth WA 6000
Date submitted:	13 November 2018
Urgency:	High
Rule Change Proposal title:	Full Runway Allocation of Spinning Reserve Costs
Market Rule(s) affected:	Appendix 2

Introduction

Clause 2.5.1 of the Wholesale Electricity Market (WEM) Rules (Market Rules) provides that any person may make a Rule Change Proposal by completing a Rule Change Proposal form that must be submitted to the Rule Change Panel.

This Rule Change Proposal can be sent by:

Email to: rcp.secretariat@rcpwa.com.au

Post to: Rule Change Panel
 Attn: Executive Officer
 C/o Economic Regulation Authority
 PO Box 8469
 PERTH BC WA 6849

The Rule Change Panel will assess the proposal and, within 5 Business Days of receiving this Rule Change Proposal form, will notify you whether the Rule Change Proposal will be further progressed.

In order for the proposal to be progressed, all fields below must be completed and the change proposal must explain how it will enable the Market Rules to better contribute to the achievement of the Wholesale Market Objectives.

The objectives of the market are:

- (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;
- (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;
- (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
- (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and
- (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.

Details of the Proposed Rule Change

1. Describe the concern with the existing Market Rules that is to be addressed by the proposed rule change:

The Australian Energy Market Operator (AEMO) dispatches a number of Ancillary Services to support the safe and reliable operation of the Wholesale Electricity Market (WEM) in Western Australia. Spinning Reserve is one of these Ancillary Services and is provided by generators (synchronised to the system) held in reserve to help arrest any frequency drop due to sudden loss of generation on the system.

In general, AEMO maintains sufficient spinning reserve at any time to cover the greater of 70% of the output of the largest generator synchronised to the system and the maximum load ramp expected in the next 15 minutes. During the period 1 May 2017 to 30 April 2018 the average spinning reserve amount enabled was 290 MW during Peak Trading Intervals and 257 MW during Off-Peak Trading Intervals¹. The corresponding annual cost for this ancillary service was reported by AEMO as \$22.2 million for the period 1 April 2017 – 31 March 2018².

The amount of Spinning Reserve enabled is directly related to the size of the largest synchronised generation unit on the system as more generation must be held in reserve to arrest frequency drops caused by the sudden loss of larger generators. The loss of smaller units may also impact on frequency and the spinning reserve service may be utilised, but not to the full capacity available.

The cost of providing the Spinning Reserve Ancillary Service is currently recovered from all generators with output of at least 10 MW synchronised to the system in a given Trading Interval. The current cost recovery methodology for Spinning Reserve is contained in Appendix 2 of the WEM Rules wherein costs are allocated based on a system of predetermined blocks with increasing costs for each block. Generators with output of less than 10 MW do not contribute towards Spinning Reserve costs.

¹ See page 10 of the Ancillary Services Report 2018/19, System Management, June 2018 available from <https://www.aemo.com.au/-/media/Files/Electricity/WEM/Data/System-Management-Reports/2018/2018-Ancillary-Services-Report.pdf>

² Ibid, page 13

All generators with output of more than 10 MW contribute in equal shares towards the cost of the first 45 MW of Spinning Reserve costs. All generators with output in excess of 45 MW contribute in equal shares towards the cost of Spinning Reserve costs for the next 20 MW (cut-off at 65 MW). This pattern is replicated for a total of five different blocks with the last block consisting of generators with output more than 200 MW. This methodology is sometimes referred to as the “modified runway” approach and ensures that large generators contribute more towards the cost than smaller generators, to reflect the different levels of cost associated with providing Spinning Reserve to cover the loss of different sized generators.

The Public Utilities Office considers the current modified runway approach can be improved to provide better cost reflectivity for the allocation of Spinning Reserve costs and proposes to replace the modified runway approach with a “full runway” approach.

Under the “full runway” approach, it is proposed that each generator will pay for its full share of Spinning Reserve costs with a more dynamic approach applied to the concept of the value of holding a marginal MW of Spinning Reserve. The concept of blocks is proposed to be replaced with a calculation that will effectively provide an individual value for each generator synchronised to the system with output in excess of 10 MW. The approach is more granular and has the ability to more accurately reflect additional cost to the system for holding an additional MW of Spinning Reserve, as opposed to the current approach where cost differences within a block are averaged across all generators in that block, leading to some paying more and some paying less than the actual cost they are imposing on the system.

Full details of the proposed algorithm to implement the change are provided in section 3 of this Rule Change Proposal.

2. Explain the reason for the degree of urgency:

The Public Utilities Office suggests this Rule Change proposal be progressed with a high urgency rating as the proposal:

- Ensures the cost of providing Spinning Reserve more accurately reflects each generator’s additional cost to the system, thus applying a causer-pays principle to cost allocation.
- Is consistent with the current Wholesale Electricity Market reform program and will provide early benefits by reducing any cross-subsidies inherent in the existing approach.
- Responds to concerns raised by members of the Market Advisory Committee indicating a high degree of support for a more granular approach to the allocation of Spinning Reserve costs.

3. Provide any proposed specific changes to particular Market Rules: *(for clarity, please use the current wording of the rules and place a ~~striketrough~~ where words are deleted and underline words added)*

The Public Utilities Office considers that the proposed changes can be implemented via amendments to Appendix 2 of the WEM Rules only. The proposed amendments are as follows:

Appendix 2: Spinning Reserve Cost Allocation

This Appendix determines the value of SR_Share (p,t) of the Spinning Reserve service payment costs in Trading Interval t to be borne by Market Participant p.

In this Appendix the relevant Market Participant p is the Market Participant to whom a facility is registered, with the exception that in the case of unregistered generation systems serving Intermittent Loads, the relevant Market Participant p is the Market Participant to whom the Intermittent Load is registered.

The calculations in this Appendix are based on data for a set of applicable facilities (indexed by f) where this set comprises all Scheduled Generators and all Non-Scheduled Generators registered during Trading Interval t, except those Intermittent Generators exempted under clause 2.30A.2. This set also includes all unregistered generation systems serving Intermittent Loads.

Step 1: For the purpose of determining the SR_Share (p,t) values, each applicable facility f has an applicable capacity associated with it for Trading Interval t.

- If facility f is an Intermittent Generator with an interval meter then this is double the MWh average interval meter reading for the Trading Month containing Trading Interval t.
- If facility f is a Scheduled Generator with an interval meter then this is double the MWh interval meter reading for Trading Interval t.
- If facility f is a Scheduled Generator that is the sum of more than one aggregated Facility, each with an interval meter and each injecting energy at an individual network connection point to the South West interconnected system, then each individual Facility is treated as an individual Scheduled Generator under Appendix 2.
- If facility f is a Synergy Intermittent Generator without an interval meter then this is double the average monthly MWh sent out generation of that facility based on SCADA data over the Trading Month containing Trading Interval t.
- If facility f is a Synergy Scheduled Generator without an interval meter or an unmetered generation system serving Intermittent Load then this is double the MWh sent out generation of that facility based on SCADA data for Trading Interval t.

The applicable capacity value is set to zero if:

1. facility f was not synchronised to the SWIS during the whole Trading Interval t, or
2. the applicable capacity value for facility f resulting from the process described in the bullet points in this Step 1 is less than or equal to 10.

Step 2: For each Trading Interval t, rank all facilities f in ascending order from the facility with the lowest applicable capacity to the facility with the highest applicable capacity, as

determined in accordance with Step 1. If two or more facilities have the same applicable capacity in Trading Interval t, these facilities are ranked in random order by AEMO.

STEP 3: For each facility f determine the Facility Spinning Reserve Share for Trading Interval t as:

$$FSRS(f, t) = \frac{\sum_{i=1}^{rank(f)} \frac{MW(i) - MW(i-1)}{MW(n) \times (n+1-i)}}{1}$$

Where:

i is the ranking number of facility f determined in Step 2.

n is the total number of applicable facilities.

rank(f) is the rank of facility f as determined under Step 2.

MW(i) is the applicable capacity associated with facility f at rank i.

MW(i - 1) is the applicable capacity associated with the facility ranked immediately prior to facility ranked i. Where i=1, the value of MW(i - 1) is zero.

MW(n) is the applicable capacity associated with the facility at rank n.

Step 4: For each Trading Interval t, calculate the SR_Share(p,t) value for each Market Participant as:

$$SR_Share(p, t) = \sum_{f \in F} FSRS(f, t)$$

Where:

F is the set of applicable facilities belonging to Market Participant p.

f is a member of the set in F.

FSRS(f,t) is the Facility Spinning Reserve Share for facility f in Trading Interval t calculated in Step 3.

The methodology makes use of the data in Table 1.

Block Number	Block Range (MW)	Block Size (MW)
1	>200	100
2	>125 and ≤ 200	75
3	>65 and ≤ 125	60
4	>45 and ≤ 65	20

5	>10 and ≤ 45	35
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Table 1: Data for Determine Reserve_Share(p,t)

For each Block, indicated by block number b , in Table 1, the Reserve Block Share is:

If $\text{Sum}(f(i \leq)) > 0$

$$\text{RBS}(b) = [\text{Block Size}(b) / \text{Sum}(i, \text{Block Size}(i))] / \text{Sum}(f(i \leq), \text{TIS}(f))$$

If $\text{Sum}(f(i \leq)) = 0$

$$\text{RBS}(b) = 0$$

Where

$\text{Block Size}(i)$ is the size of the Block with block number i listed in Table 1.

$f(i \leq)$ is the subset of applicable facilities that had applicable capacities for Trading Interval t lying within the block range of any Block with a block number value of b or less.

$\text{TIS}(f)$ is 1 if the applicable facility f was synchronised to the SWIS during Trading Interval t , and is zero otherwise.

For each Block b in Table 1, the Reserve Generator Share is:

$$\text{RGS}(b) = \text{Sum}(i \geq, \text{RBS}(i))$$

Where

$i \geq$ is the set of Blocks listed in Table 1 that have a block number i greater than or equal to b .

For each Market Participant p , its unadjusted share of the Spinning Reserve service payment costs for the Trading Interval is:

$$\text{USHARE}(p) = \text{Sum}(f(p), \text{RGS}(b(f)) \times \text{TIS}(f))$$

Where

$f(p)$ is the set of applicable facilities for the Market Participant p that have applicable capacities within one of the block ranges listed in Table 1.

$b(f)$ is the block number of the Block in Table 1 that has a block range that corresponds to the applicable capacity of the applicable facility f .

$\text{TIS}(f)$ is 1 if the applicable facility f was synchronised to the SWIS during Trading Interval t , and is zero otherwise.

For each Market Participant p , its adjusted share of the Spinning Reserve services payment costs for Trading Interval t is:

$$\text{SR_Share}(p,t) = \text{USHARE}(p) / \text{sum}(q, \text{USHARE}(q))$$

Where

q is the index of the set of all Market Participants.

4. Describe how the proposed rule change would allow the Market Rules to better address the Wholesale Market Objectives:

- (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;**

The proposed changes will provide more cost reflective signals to generators in relation to the costs of the Spinning Reserve service associated with different loading levels for the generator. A more accurate input for the Spinning Reserve component is likely to lead to more efficient decisions with respect to bidding and dispatch of individual facilities, as it will reduce inefficient incentives for a generating unit to fall within a particular block for Spinning Reserve costs. Transparency and accuracy in reflecting the Spinning Reserve cost share to Market Participants is likely to lead to more efficient outcomes in all aspects of the WEM, including the Short Term Energy Market (STEM) and in the Balancing Market.

- (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;**

The improved cost reflectivity is likely to positively impact on generator competition as any inherent cross-subsidies within the current block system will be removed and a more level playing field will be enabled. For investors, the improved and more accurate cost allocation is likely to lead to more appropriate decisions on plant configurations as inefficient incentives to fit capacity “into a particular block” will be removed. This in turn will lead to investment decisions aligned with economic principles and more timely generator entry.

- (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;**

The Public Utilities Office does not consider the proposed changes will impact on this Market Objective.

- (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and**

The proposed amendment to the cost allocation methodology should lead to better cost reflectivity of Spinning Reserve costs and remove any incentives for sub-optimal generation designs and bidding or dispatch behaviour to fit into certain blocks. This will lead to more efficient investments in a suitable generation mix for the South West Interconnected System, with reduced costs and improve power supply reliability for end use consumers over the longer term.

- (e) **to encourage the taking of measures to manage the amount of electricity used and when it is used.**

The Public Utilities Office does not consider the proposed changes will impact on this Market Objective.

5. Provide any identifiable costs and benefits of the change:

Preliminary estimates from AEMO indicate that approximately \$250,000 will be incurred to implement the associated system changes.

Agenda Item 8(d): PRC – Removal of constrained off compensation for Network Outages

Meeting 2018_11_20

1. The Proposal

The Public Utilities Office (**PUO**) has submitted a Pre-Rule Change Proposal (**PRC**) titled Removal of constrained off compensation for Network Outages. The PUO submitted this PRC following discussions on constrained off payments at the Market Advisory Committee (**MAC**) meeting held on 12 September 2018 and the MAC workshop on constrained off payments held on 24 October 2018. A copy of the PRC is attached for review and consideration by the MAC.

2. Recommendation

RCP Support recommends that any Rule Change Proposal stemming from this PRC be progressed using the Standard Rule Change Process.

It is recommended that the MAC discuss the PUO's PRC, including:

- the scope of the proposal;
- the proposed solution;
- the proposed rule change drafting;
- the recommended high urgency rating; and
- the recommendation to progress the subsequent Rule Change Proposal using the Standard Rule Change Process.



Wholesale Electricity Market Rule Change Proposal

Rule Change Proposal ID: RC_2018_07
Date received: *[to be filled in by the RCP]*

Change requested by:

Name:	Zaeen Khan
Phone:	(08) 6551 4661
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Organisation:	Public Utilities Office, Department of Treasury
Address:	David Malcolm Justice Centre, 28 Barrack Street, Perth WA 6000
Date submitted:	13 November 2018
Urgency:	2 – High
Rule Change Proposal title:	Removal of constrained off compensation for Network Outages
Market Rule(s) affected:	Clauses 6.16A.2, 7.6.1B, 7.7.3A, 7.11.5 and 7.11.6, and the Glossary of the WEM Rules

Introduction

Clause 2.5.1 of the Wholesale Electricity Market (WEM) Rules (Market Rules) provides that any person may make a Rule Change Proposal by completing a Rule Change Proposal form that must be submitted to the Rule Change Panel.

This Rule Change Proposal can be sent by:

Email to: rcp.secretariat@rcpwa.com.au

Post to: Rule Change Panel
 Attn: Executive Officer
 C/o Economic Regulation Authority
 PO Box 8469
 PERTH BC WA 6849

The Rule Change Panel will assess the proposal and, within 5 Business Days of receiving this Rule Change Proposal form, will notify you whether the Rule Change Proposal will be further progressed.

In order for the proposal to be progressed, all fields below must be completed and the change proposal must explain how it will enable the Market Rules to better contribute to the achievement of the Wholesale Market Objectives.

The objectives of the market are:

- (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;
- (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;
- (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
- (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and
- (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.

Details of the Proposed Rule Change

1. Describe the concern with the existing Market Rules that is to be addressed by the proposed rule change:

This rule change proposal contains proposed amendments to deliver a low cost, administrative solution to remove constrained off compensation payments resulting from Network Outages.

Background

Under the Wholesale Electricity Market (**WEM**) Rules, Market Generators must make Balancing Submissions for each Trading Interval, specifying prices and quantities at which their Facilities may be dispatched. Market Generators schedule their Facilities¹ by varying prices and quantities in their Balancing Submissions in response to market forecasts.

The Australian Energy Market Operator (**AEMO**) uses these Balancing Submissions to form the Balancing Merit Order (**BMO**) – the order in which Facilities must be dispatched to ensure economically efficient market outcomes. AEMO, in its capacity as System Management, then determines the expected operational load for the relevant Trading Interval and dispatches Facilities, in economic order, to meet that demand.

In dispatching Facilities to meet operational load, AEMO may only depart from the BMO if it is necessary to maintain system security and reliability. In this regard, AEMO may decide to issue Dispatch Instructions to Facilities out of sequence with the BMO or ‘Out of Merit’.

Where a Facility is dispatched Out of Merit, either upwards or downwards, the WEM Rules provide that the Market Generator is eligible to be paid compensation to cover the cost, or foregone revenue, associated with the required change in volume of electricity generated.

¹ With the exception of the Synergy Balancing Portfolio which is scheduled by System Management.

These are known as constrained on (when dispatched upwards) and constrained off (downwards) compensation payments, or constraint payments. Constraint payments are calculated for each Trading Interval by multiplying the constrained quantity by the difference between the Balancing Price and offer price. Constraint payments are paid by Market Customers to Market Generators, pro-rated based on volumes consumed during the relevant Trading Interval.

Issue

On 4 September 2018, Kleenheat wrote to the Rule Change Panel (**RCP**) to raise concerns about the high and unexpected level of constrained off compensation payments in recent Trading Months. Kleenheat was concerned about:

- the method used to calculate constrained off payments in the WEM; and
- the lack of information available to Market Customers to enable them to forecast the expected cost of constrained off compensation payments.

At the 12 September 2018 Market Advisory Committee (**MAC**) meeting, Kleenheat raised its concerns² and members discussed the issue broadly. MAC members noted that the total amount of constraint payments had increased, and that constrained off compensation payments had been excessive over recent months.

Figure 1.1 shows the quarterly amount of constrained off compensation since Q2 2017.

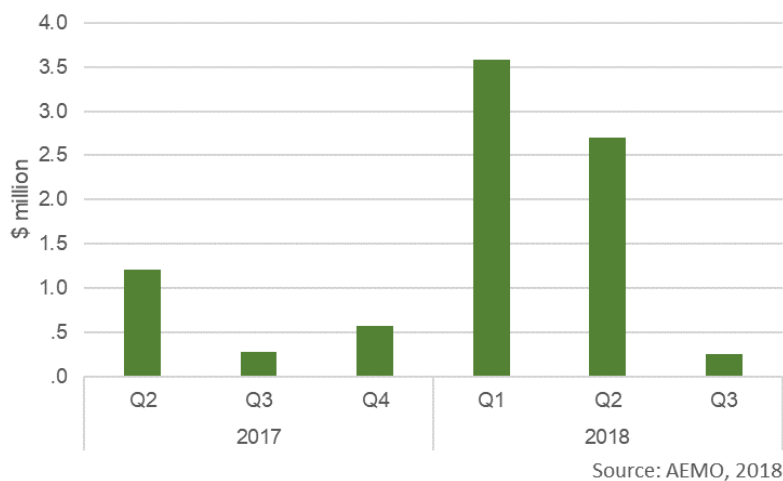


Figure 1.1: Historical constrained off compensation payments

Kleenheat highlighted the constrained off payments were excessive, noting that payments often reach more \$1,000 per megawatt hour due to the minimum price able to be offered in the WEM (the Minimum STEM Price) of -\$1,000 per megawatt hour.

MAC members noted they had been aware of the issue for some time, and the former Independent Market Operator (**IMO**) had developed a pre-rule change proposal in 2013 to prevent unwarranted constrained off compensation payments (**RC_2013_16**)³.

² Agenda item 10 of MAC compiled papers, available at: https://www.erawa.com.au/cproot/19436/2/MAC%202018_09_12%20--%20Compiled%20Papers.pdf, RCP, 12 September 2018.

³ The pre-rule change proposal: Outages and the Application of Availability and Constraint Payments to Non-Scheduled Generators (RC_2013_16) was discussed with the MAC on several occasions, most recently at the 19 March 2014 MAC

However, due to the proposed implementation costs associated with RC_2013_16 (\$430,000), coupled with the fact the former Government's electricity reform program was underway, it was considered prudent to defer the rule change.

At the September 2018 MAC meeting, members noted that while a rule change proposal such as RC_2013_16 would largely address the constraint payments issue, it remains undesirable to spend any significant amount of money to amend systems that would likely be replaced as part of the current Government's reform program. However, MAC members agreed the issue should be addressed as a priority and that a more targeted, lower cost solution was required.

Participants acknowledged that Network Outages are the largest contributor to the quantity of electricity being constrained off⁴. At a subsequent MAC workshop⁵, participants identified that removing the ability for a Market Generator to receive constrained off compensation payments due to a Network Outage would largely resolve the issue raised by Kleenheat. The Public Utilities Office agreed to develop the necessary rule change.

The Public Utilities Office considers that the proposed amendments to the WEM Rules contained in this rule change proposal provide a low cost, administrative solution to remove constrained off compensation payments directly related to a Network Outage.

Network Outages as a cause of constrained off compensation

Where a Market Participant with a Scheduled Generator is not available to deliver⁶ its contracted capacity, it must advise AEMO and the market of this unavailability by logging an Outage⁷. The Market Participant is then required to update Balancing Submissions to accurately reflect the availability of the Facility as soon as the impact of the Outage is known. Market Participants with Non-Scheduled Generators do not have the same obligation to ensure their Balancing Submissions are accurate.

Market Generators usually have sufficient information to ensure any internal constraints are reflected in Balancing Submissions. However, where a Facility is affected by an external constraint such as a Network Outage, it is not always possible to make accurate Balancing Submissions (and for Non-Scheduled Generators it is not required). In these circumstances, Balancing Submissions and therefore the BMO does not accurately reflect the availability of a Facility or number of Facilities.

Where the BMO does not reflect the availability of Facilities (including where the BMO has not been updated to reflect the impact of a Network Outage), AEMO may be required to dispatch Facilities Out of Merit, which results in constraint payments, particularly constrained off compensation payments.

meeting. Agenda item 5b of MAC compiled papers, available at:

<https://www.erawa.com.au/cproot/15302/2/MAC%20Meeting%2069%20Papers.pdf>, IMO, 19 March 2014.

⁴ AEMO also noted this in its Quarterly Energy Dynamics Report for Q2 2018, where it stated the increase in constrained off compensation "was due to planned network outages in the North Country region of the South West Interconnected System occurring over March and April 2018. In Q2 2018, there were 12 consecutive days of planned network outage impacting six generation facilities in the region."

⁵ On 24 October 2018, the RCP facilitated a workshop to discuss the issue further and consider options for development of a rule change proposal. The workshop included representatives from the RCP, AEMO, the Public Utilities Office, ERA, Kleenheat, Synergy, Bluewaters Power, Perth Energy, Alinta Energy and Community Electricity. Draft minutes of the workshop were distributed to workshop attendees for review on 7 November 2018. These minutes will be published on the RCP website on 13 November 2018 and finalised at the MAC meeting on 20 November 2018.

⁶ For a generator, this includes an inability to produce electricity, or export the electricity that is produced.

⁷ Similarly, Western Power as the Network Operator must advise AEMO when one or more of the critical network elements is unavailable. The critical network elements are those that affect system security and reliability and are included on the equipment list published in accordance with clause 3.18.2(a) of the WEM Rules.

The Public Utilities Office considers that, in these circumstances, the payment of constrained off compensation is unwarranted. It should be highlighted that:

- Western Power does not, nor should it be required to, provide 100% reliable network services to Facilities as part of its connection agreement. This means Market Generators accept a certain level of unavailability of their Facilities as a result of Network Outages and consistent with this should not be paid constrained off compensation by the market in these circumstances.
- The WEM notionally operates on an unconstrained basis⁸. However, a number of network constraints have not been addressed and now impose limitations on certain Facilities. The Market Generators with these Facilities have non-standard connection agreements, such as post-contingent runback schemes,⁹ and accept a higher level of unavailability of their Facilities as a result of Network Outages. Consistent with this arrangement Market Generators should not be paid constrained off compensation in these circumstances.

Despite this, under current market arrangements, Market Generators are paid constrained off compensation whenever a Network Outage occurs. This is because, for settlement, AEMO calculates constrained off compensation by comparing the quantity of actual energy generated by a Facility (and the Balancing Portfolio as a whole) to the theoretical amount that should have been dispatched (the theoretical energy schedule). The theoretical energy schedule is calculated using a Schedule Generator's Balancing Submission, and AEMO's estimate of the maximum amount that would have been generated for a Non-Scheduled Generator, both of which may not accurately reflect a Facility's availability during a Network Outage.

The Public Utilities Office proposes to remove the impact of constraint payments arising from a Network Outage by allowing AEMO to issue an Operating Instruction. This will have the effect of excluding the associated quantities from the volumes used to calculate the theoretical energy schedule.

This rule change proposal is consistent with the electricity sector reforms currently being progressed, which includes the transition to a constrained network access framework by 2022, under which all Facilities will be security constrained. Constrained off compensation payments will not exist once firm access rights are removed.

The Public Utilities Office considers the recent significant and potential ongoing financial impact of the issue is of sufficient scale to warrant resolution prior to the implementation of the broader reforms.

Proposed solution

As previously noted, the IMO had developed a pre-rule change proposal that addressed this issue, however, it was not progressed because it involved a significant cost and significant changes to AEMO's systems, including the settlement and outages systems.

At the September 2018 MAC meeting and the subsequent MAC workshop, participants agreed that a lower cost, administrative solution was preferable. Three possible solutions were considered:

⁸ That is, under system normal conditions, every Facility is able to export into the network its maximum generation output at any time.

⁹ These provide the ability for AEMO or Western Power to curtail the amount of electricity exported to the network in real time in certain circumstances.

1. requiring the Market Generator to log a Consequential Outage and changing the theoretical energy schedule for Non-Scheduled Generators;
2. changing AEMO's estimate of the output of a Non-Scheduled Generator where it is constrained off due to a Network Outage; and
3. requiring AEMO to issue an Operating Instruction where a Facility is constrained off due to a Network Outage.

Option 1 would require significant rule change development work and system changes.

Option 2 would require significant rule change development work and would only resolve the issue for Non-Scheduled Generators, not Scheduled Generators.

Option 3 was considered the best option as it would require minor rule change development work, minimal system changes and addresses the issue for all generators.

The Public Utilities Office has progressed the development of Option 3 in this rule change proposal and proposes to:

- amend clauses 7.6.1B and 7.7.3A and the definition of Operating Instruction to allow AEMO (acting as System Management) to issue an Operating Instruction to a Market Generator with a Facility that will be, or has been constrained off due to a Network Outage;
- amend clause 6.16B.2 to state that the Portfolio Downwards Out of Merit Generation is zero where System Management issues an Operating Instruction to Synergy with respect to the Balancing Portfolio that will be, or has been constrained off due to a Network Outage under clause 7.6.1B; and
- amend clauses 7.11.5 and 7.11.6 to continue to require System Management to issue a Dispatch Advisory where it expects Out of Merit dispatch, but where the direction is made under an Operating Instruction as opposed to a Dispatch Instruction.

The associated proposed amending rules are provided in section 3.

2. Explain the reason for the degree of urgency:

The former IMO proposed changes to address the issue in 2013 in particular due to the increase in constrained off compensation payments to Market Generators with Non-Scheduled Generators. However, the rule change proposal was deferred due to the associated cost and potential redundancy of the system changes as a result of the electricity sector reforms.

The issue will ultimately be resolved with the proposed adoption of security constrained, economic dispatch in the WEM in 2022 as part of the current electricity sector reform program. However, due to the potential financial impact on Market Customers, the Public Utilities Office considers the proposed low cost, administrative solution (Option 3 listed in the previous section) should be progressed with high urgency.

The MAC agreed at its meeting on 12 September 2018 that this issue should have a high urgency rating.

3. Provide any proposed specific changes to particular Market Rules: (for clarity, please use the current wording of the rules and place a ~~strikethrough~~ where words are deleted and underline words added)

6.16A.2. The Downwards Out of Merit Generation in a Trading Interval for a Balancing Facility equals:

- (a) subject to clause 6.16A.2(b), the Minimum Theoretical Energy Schedule less the Sent Out Metered Schedule; or
- (b) zero if:
 - i. the Economic Regulation Authority has notified AEMO under clause 7.10.8 that the relevant Market Participant has not adequately or appropriately complied with a Dispatch Instruction;
 - ii. the Facility was undergoing a Test or complying with an Operating Instruction;
 - iii. the Minimum Theoretical Energy Schedule less the Sent Out Metered Schedule is less than the sum of:
 - 1. any Downwards LFAS Enablement and, if the Facility is a Stand Alone Facility, any Downwards Backup LFAS Enablement, which the Facility was instructed by System Management to provide, divided by two so that it is expressed in MWh; and
 - 2. the applicable Settlement Tolerance; or
 - iv. the Balancing Facility is a Non-Scheduled Generator and System Management has not determined a MWh quantity for the Facility and the Trading Interval under clause 7.13.1(eF).

...

6.16B.2. The Portfolio Downwards Out of Merit Generation in a Trading Interval for the Balancing Portfolio equals:

- (a) subject to clause 6.16B.2(b), the Minimum Theoretical Energy Schedule less the sum of any Sent Out Metered Schedules for Facilities in the Balancing Portfolio; or
- (b) zero if:
 - i. the Economic Regulation Authority has notified AEMO under clause 7.10.8 that Synergy has not adequately or appropriately complied with a Dispatch Order; ~~or~~
 - ii. the Minimum Theoretical Energy Schedule of the Balancing Portfolio less the sum of any Sent Out Metered Schedules for Facilities in the Balancing Portfolio is less than the sum of:

1. any reduction in sent out energy due to a Network Control Service Contract which System Management instructed a Facility within the Balancing Portfolio to provide;
 2. if Facilities within the Balancing Portfolio were instructed by System Management to provide LFAS, the sum of the Downwards LFAS Enablement plus the Downwards LFAS Backup Enablement, both divided by two so that they are expressed in MWh;
 3. if a Load Rejection Reserve Event has occurred, any Load Rejection Reserve Response Quantity; and
 4. the Portfolio Settlement Tolerance; or
- iii. the Facility was complying with an Operating Instruction.

...

7.6.1B. In seeking to meet the Dispatch Criteria, System Management may issue an Operating Instruction in priority to any Dispatch Instruction provided the Operating Instruction is also ~~in accordance with~~:

- (a) in accordance with a Network Control Service Contract;
- (b) in accordance with an Ancillary Service Contract;
- (c) in accordance with these Market Rules in connection with a Test; ~~or~~
- (d) in accordance with a Supplementary Capacity Contract; or
- (e) in response to an Outage of any Network equipment, and directs a Balancing Facility or Facility in the Balancing Portfolio to reduce its output Out of Merit, to maintain Power System Security and Power System Reliability.

...

7.7.3A. Each Operating Instruction must contain the following information:

- (a) details of the Registered Facility to which the Operating Instruction relates;
- (b) the time the Operating Instruction was issued;
- (c) the time at which the response to the Operating Instruction is required to commence and an estimate of when the Operating Instruction will cease to apply;
- (d) if applicable, the required level of sent out generation or consumption; and
- (e) whether the Operating Instruction relates to a Network Control Service Contract, an Ancillary Service Contract, a Test ~~or~~ a Supplementary Capacity Contract, or an Outage of any Network equipment.

...

7.11.5. System Management must release a Dispatch Advisory in the event of, or in anticipation of situations where:

...

(g) System Management expects to issue a Dispatch Instruction Out of Merit including, for the purpose of this clause, issuing a Dispatch Order to the Balancing Portfolio in accordance with clause 7.6.2, which will result in Out of Merit dispatch of the Balancing Portfolio;

(gA) System Management expects to issue an Operating Instruction to a Balancing Facility, or Facility in the Balancing Portfolio under clause 7.6.1B(e);

...

7.11.6. Subject to clause 7.11.6A, a Dispatch Advisory must contain the following information:

...

(dA) where System Management is to release a Dispatch Advisory under clauses 7.11.5(g) or 7.11.5(gA), details of the estimated Out of Merit quantities, reasons for the deviation from the BMO and all relevant information about the deviation;

...

...

Operating Instruction: Means an instruction issued by System Management requiring a Facility to increase or decrease its output or decrease its consumption ~~to meet the requirements of:~~

- (a) to meet the requirements of a Network Control Service Contract;
- (b) to meet the requirements of an Ancillary Service Contract;
- (c) to meet the requirements of a Test under these Market Rules;
- (d) to meet the requirements of a Supplementary Capacity Contract; ~~or~~
- (e) to provide Ancillary Services, other than LFAS but including LFAS Backup Enablement, to be provided by Facilities other than Facilities in the Balancing Portfolio; ~~or~~ or
- (f) under clause 7.6.1B(e) in response to an Outage of any Network equipment.

4. Describe how the proposed rule change would allow the Market Rules to better address the Wholesale Market Objectives:

The WEM Rules as a whole, if amended to reflect the proposed amending rules above will not only be consistent with the Wholesale Market Objectives but also generally allow the

WEM Rules to better achieve Wholesale Market Objectives (a), (c) and (d).

- (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;**

The Public Utilities Office considers the proposed amendments will remove the impact of any constraint resulting from a Network Outage by excluding the associated quantities from the volumes used to calculate the theoretical energy schedule. This will have the effect of removing unwarranted constrained off compensation and avoiding a significant wealth transfer between Market Customers and Market Generators.

- (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;**

The Public Utilities Office does not consider the proposed changes will impact on this Market Objective.

- (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;**

The proposed changes will align the compensation for Non-Scheduled Generators with those that apply for Scheduled Generators.

- (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and**

The Public Utilities Office considers that the proposed amendments will:

- reduce the time and effort in relation to the investigation of the merit of constrained off compensation payments, thereby reducing the long-term compliance cost overall;
- avoid potential increases in prudential obligations as a result of unwarranted constrained off compensation payments; and
- reduce the risk of paying constrained off compensation payments, which cannot be hedged, and which is typically passed through to the end customer.

- (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.**

The Public Utilities Office does not consider the proposed changes will impact on this Market Objective.

5. Provide any identifiable costs and benefits of the change:

The amendments if implemented as proposed will resolve a long-standing issue that has resulted in significant unwarranted payments to Market Generators as a result of Network Outages.

In the MAC workshop, AEMO indicated that some system changes may be required to data flows into the settlement system, but that it was likely that these changes will be minor.

The WEM Rules already set the Out of Merit quantity to zero if a Balancing Facility is subject to an Operating Instruction. As such, minimal changes to processes and systems are expected (in particular, to the settlement calculations), with the only changes expected being in the issue of Operating Instructions and in the preparation of data to provide for settlements.

The Public Utilities Office expects there will also be changes to sections 5.4 and 5.7 of the Power System Operation Procedure: Dispatch.

Agenda Item 8(e): PRC – Adjusting Non-STEM Settlement Statement Using Latest Available Data

Meeting 2018_11_20

1. Background

Under clause 2.5.1A of the Market Rules, AEMO must, before commencing development of a Rule Change Proposal (**Proposal**), consult with the Market Advisory Committee (**MAC**) on:

- (a) the matters to be addressed by the Proposal;
- (b) the options to resolve the matters to be addressed by the Proposal;
- (c) AEMO's estimated costs for developing the Proposal;
- (d) whether and when AEMO should develop the Proposal; and
- (e) whether and how the MAC should be consulted during development of the Proposal.

AEMO must take into account any comments provided by the MAC in deciding whether, how, and when to develop a Proposal.

2. The Proposal

AEMO has identified two issues in the non-STEM Settlement Adjustment Process that it considers should be addressed by a change to the Market Rules. AEMO has developed a slide pack to lay out the issue and address the matters required under clause 2.5.1A of the Market Rules – see the attachment to this paper. AEMO will develop a Proposal to address these matters pending discussions by the MAC.

3. Discussion

The MAC is asked to:

- review the slides provided by AEMO in the attachment to this paper;
- discuss the matters required under clause 2.5.1A of the Market Rules; and
- if it is agreed that the AEMO should develop a Proposal for this matter, make a recommendation on the urgency rating for the Proposal.¹

¹ The urgency ratings used by the Rule Change Panel include:

1. Essential: Legal necessity, unacceptable market outcomes, or a serious threat to power system security and reliability.
2. High: Compelling proposal, and either large benefit or necessary to avoid serious perverse market outcomes.
3. Medium: Net benefit may be:
 - large, but needs more analysis to determine; or
 - material, but not large enough to warrant a High rating.
4. Low: Minor net benefit (e.g. reduced administration costs).
5. Housekeeping: Negligible market benefit (e.g. improves readability of the rules).



Adjusting Non-STEM Settlement Statements using latest available data

MAC – 20 November 2018

Context

- There are two main limitations in the Non-STEM Settlement Adjustment Process
- **Issue 1** – The WEM Rules limit the factors that AEMO can consider in the Adjustment Process. Specifically, AEMO cannot address incorrect input data except for metering data.
- **Issue 2** – The Notice of Disagreement process in the WEM Rules may be unnecessarily restrictive for Market Participants.
- These issues may:
 - Lead to incorrect settlement outcomes in the market; OR
 - Lead to AEMO knowingly breaching the rules to ensure correct settlement outcomes, leading to increased administrative overhead from a compliance perspective;
- This issue has arisen twice in the 2017-18 Audit Period. On both occasions, AEMO incurred a “consequential breach” by using updated data in the Adjustment Process.¹
- AEMO has been asked by the Market Auditors to “consider a rule change proposal to extend the list of data changes that can trigger a settlement adjustment.”

Issue 1 – Adjustment Requirements

Problem:

Section 9.19 of the WEM Rules allows AEMO to undertake the Adjustment Process for Settlements, taking into account:

- Meter Data;
- Non-Balancing Dispatch Instruction Payments;
- Non-Compliance of Constrained Payments;
- Market Fee rates;
- GST;
- Latest version of the Settlement Calculation Software; and
- Actions arising from a Notice of Disagreement or Dispute

Impact:

- The specified list does not include all input data used for Settlements.
- For example:
 - Market data such as administered parameters.
 - System Management data such as Outage information, Ancillary Services information.
- If the incorrect data is identified by AEMO (i.e. not subject to a Notice of Disagreement), AEMO may not be able to include this information in the Adjustment Process leading to incorrect settlement outcomes.

Issue 1 – Adjustment Requirements

Recommendation:

AEMO considers the Adjustment Process should recalculate Settlement Statements using the best data available to AEMO at the time of recalculation.

Detail:

It is recommended that the Adjustment Process should not recalculate any value that has been published publicly or impacts multiple participants.

Eg:

- Balancing Price
- Load Following Up/Down Price
- Reserve Capacity Price
- DSM Reserve Capacity Price
- Max/Min Theoretical Energy Schedules
- Capacity Credit Allocations
- Energy Bilateral Contracts

Issue 2 – Notice of Disagreement Timeline

Problem:

1. Rule/Market Participants may only issue a Notice of Disagreement in relation to an NSTEM Statement by the specified deadline:
 - MR 9.16.2(f): Within 20 Business Days of the issued NSTEM Statement
2. A Rule/Market Participant may only issue a Notice of Disagreement in respect of the most recently issued NSTEM Statement, where the information differs from the previously issued NSTEM Statement. (MR 9.19.6)

Impact:

- The tight deadline is often too restrictive for participants to effectively validate all of the information within the Settlement Statement.
- Within a 20 day period a participant might receive 4 STEM and 4 NSTEM invoices. A considerable amount of data for even the most sophisticated of participants.
- If an issue is not identified prior to the issuance of the next Settlement Statement the rules preclude this issue from being resolved.

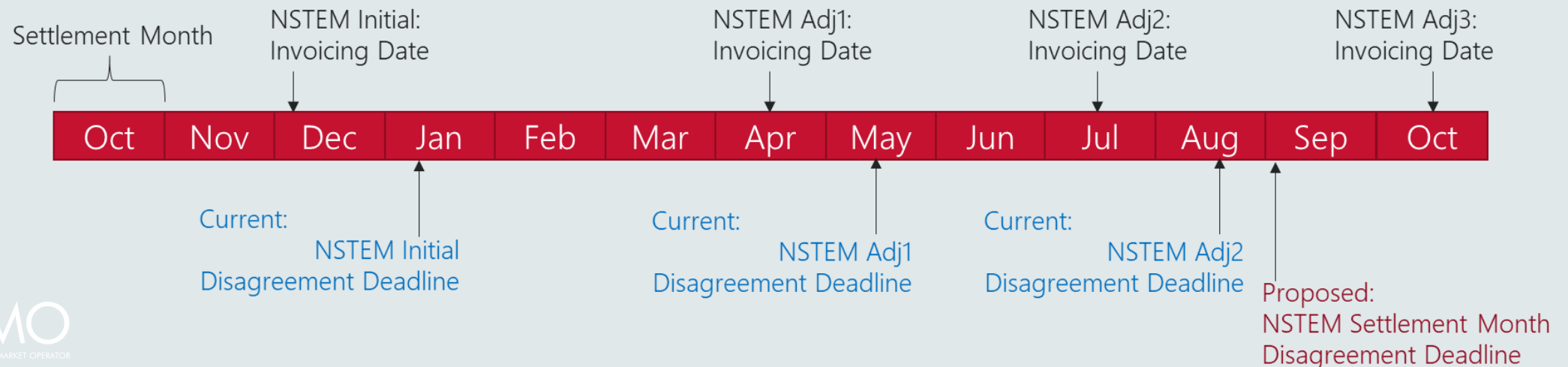
Issue 2 – Notice of Disagreement Timeline

Recommendation:

Any **Rule Participant** should be permitted to submit a Notice of Disagreement in relation to a Settlement Period. This used in conjunction with the recommendation from Issue 1 would allow AEMO to resolve any Settlement Disagreement in any subsequent Adjustment (i.e. allowing time to assess and correct the issue).

Detail:

1. NSTEM: The Notice of Disagreement deadline should be specified as 5pm on the first business day 10 months after the Settlement Month.
2. STEM: The Notice of Disagreement deadline should remain as current; 5pm on the 20th Business Day following the date of invoice.



Supporting Changes

As part of the proposed Rule Change AEMO recommends the following changes be included to support the Notice of Disagreement process:

Clause	Current Circumstance	Proposed Circumstance	Reason
9.20.1	A Notice of Disagreement must be submitted to AEMO in writing and may be mailed, sent by facsimile, e-mailed or submitted electronically to AEMO.	Changing the submission requirements of a Notice of Disagreement to be in the manner prescribed by AEMO in a Market Procedure.	Multiple methods of submitting a Notice of Disagreement places administration overhead on the collection and management process.
9.20.3	If AEMO does not confirm receipt a Rule Participant must follow up.	Streamlining the notification and confirmation process to require only AEMO to confirm receipt.	Requiring the Rule Participant to follow up on their own submission seems redundant in the current world of automated systems.
9.20.4	A Notice of Disagreement must include specific information and reasons when submitted by the Rule Participant.	The form and format of a Notice of Disagreement should be prescribed by AEMO in a Market Procedure.	Participants do not adhere to this guideline anyway. Allowing AEMO to prescribe the format in a Market Procedure will reduce the administrative overhead.
9.20.5	AEMO is required to notify the Metering Data Agent or Network Operator within 5 Business Days, specifying a date not later than 60 days after, if the Notice of Disagreement relates to data provided by their service.	Remove the requirement on AEMO to notify a third party in relation to a Notice of Disagreement.	This requirement is an unnecessary compliance obligation on AEMO. AEMO will manage the process as required to meet its obligation to respond within the overall deadline.
9.20.7	AEMO must respond to the Rule Participant within 3 months indicating any corrective actions taken.	<ol style="list-style-type: none"> 1. Reduce the timeline for AEMO to respond with corrective actions to within 20 Business Days. 2. Provide a method for AEMO to extend the response deadline providing reasoning for the extension and new proposed deadline. 	<ol style="list-style-type: none"> 1. Reduce the timeline to ensure AEMO can successfully action all Notice of Disagreements before issuance of Adjustment 3 invoice. 2. Allowance for AEMO to extend the timeline if the revision to the settlement system is required.

Impact on AEMO

- The proposed changes will have minimal impact on AEMO in terms of effort and cost.
- It is expected that AEMO can accommodate the required changes within it's current operational budget.
- Changes would be expected to the following published documents:
 - Market Procedure: Settlements
 - Notice of Disagreement Form
 - Settlement Cycle Timeline

	Effort
System	None
Public Documents	XS
Internal Processes	S

- Changes would be required to AEMOs internal processes:
 - Settlement Adjustments
 - Settlement Disagreements
 - Settlement Administration

Questions and Next Steps

In line with WEM Rule 2.5.1A., AEMO is seeking the MAC's views on whether and when AEMO should develop a Rule Change Proposal to remedy this matter.

If MAC believes this matter should be addressed by a Rule Change:

- AEMO would welcome views on the relevant urgency/priority; and
- AEMO will develop a Pre Rule Change Proposal for review at MAC in February 2019.

Treatment of Storage Technologies in other Jurisdictions

MAC Meeting Presentation

20 November 2018



Economic Regulation Authority

WESTERN AUSTRALIA

Agenda

01

Applications of Storage Technologies

Grid, Islands, Market, BTM

02

Positioning of Storage Technologies

Use by power and duration

03

Storage in Great Britain

04

North America

FERC order 841, New England, Other North American markets

05

Closer to home – the NEM

Application of Storage Technologies - Grid

	Storage System	Operational Use
Transmission System	Large scale facility used to improve grid performance and assist integration of utility scale renewables.	Voltage support and grid stabilization, decrease transmission losses, diminish congestion, increase system reliability, support local grid during upstream outages, defer/substitute transmission investment, optimise renewable-related transmission.
Distribution System	Facility located at substation or distribution feeder, controlled by utility, integrated distribution into utility management systems	Substation - flexible peaking capacity while also mitigating stability problems Feeder – mitigate stability problems and enhance system reliability and resiliency

Application of Storage Technologies – Islands

	Storage System	Operational Use
Microgrid	Facility that supports small power systems that can 'island' eg. farm at edge of grid	Ramping support to enhance system stability and increase reliability. Smooth and firm customer-sited solar or wind. Support islanded microgrid operation for critical services during grid outage. Provides short term power output.
Island Grid	Facility that supports physically isolated electricity systems eg. isolated mining operation - scale can vary widely by use.	Supporting stability and reliability, in addition to smoothing and firming renewables. May provide balancing and fast ramping. Provides enduring output.

NB. Storage resources can be mobile.

Application of Storage Technologies – Market

	Storage System	Operational Use
Hybrid Generation	Large scale storage facility collocated with renewable energy	Wind and solar firming, smoothing and dispatch. Can shift renewable generation output to meet market needs and/or energy arbitrage. Capacity and resource adequacy.
Peaker replacement	Large-scale energy storage system designed to replace peaking gas turbine and other facilities. Fast and responsive	Capacity, energy sales (eg. time-shift/arbitrage), spinning reserve. Can be brought online quickly to meet rapidly increasing demand at peak and quickly taken offline as demand diminishes.
Frequency regulation	Energy storage system with parameters designed to reflect system requirements. Fast and responsive	Balances power by raising or lowering output to follow real time changes in load to maintain frequency to be held within a tolerance band.

Application of Storage Technologies – BTM

	Storage System	Operational Use
Residential	System for residential home use	Back-up power, power quality improvements eg. regulates power supply and smooths the quantity of electricity sold back to the grid from PV, and extends the utility of solar generation.
Commercial and Industrial	System sized to have sufficient power and energy to support multiple C&I energy management strategies	Behind the meter peak shaving and demand reduction ie. time shift energy from grid or from customer-sited solar, to manage energy use under a time-of-use retail rate. May provide option of providing grid services to utility or wholesale market.
Commercial appliance	System that contains limited energy and power	Provides behind the meter demand reduction.

Positioning of Storage Technologies

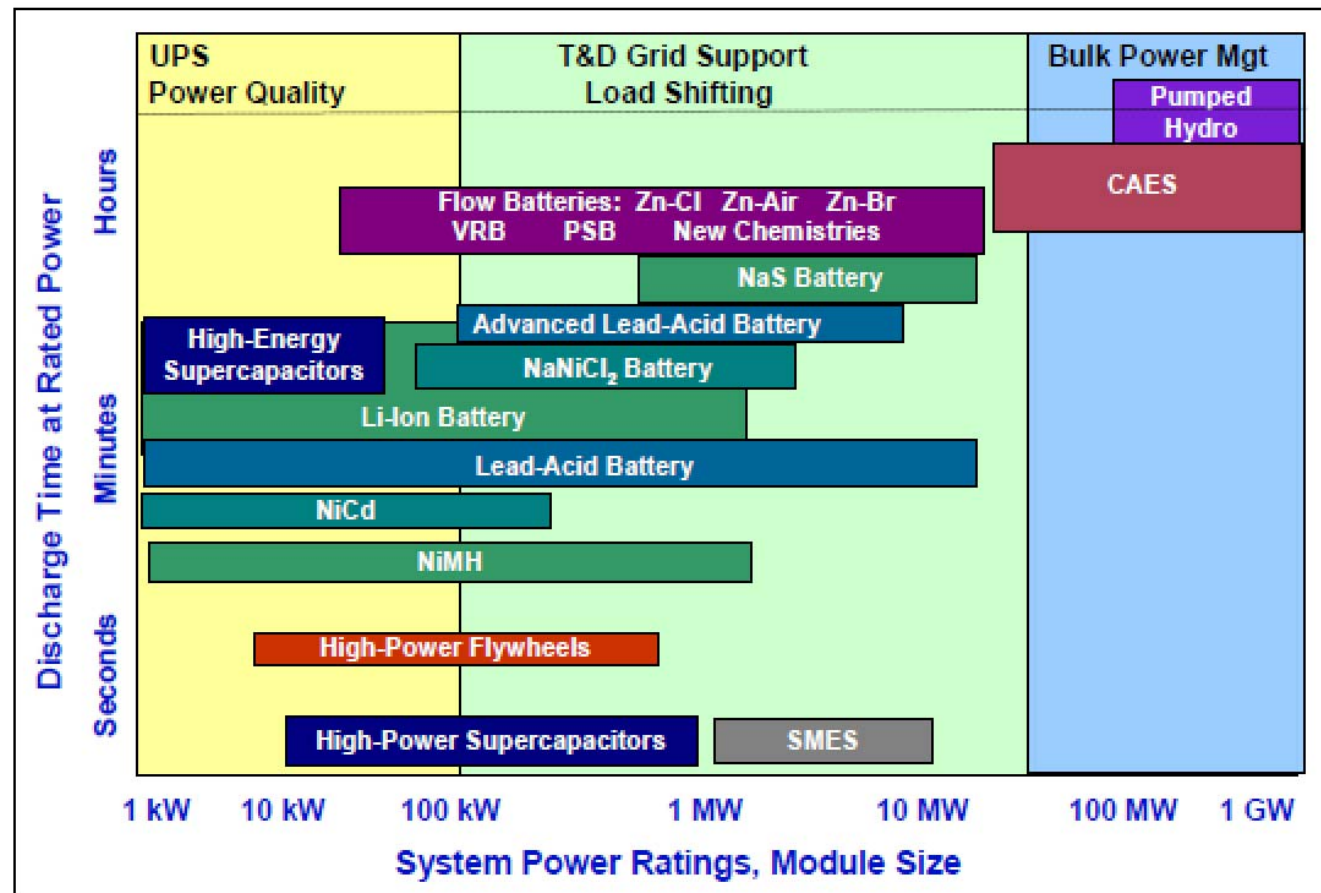


Figure 19. Positioning of Energy Storage Technologies

Storage in Great Britain

- GB market - balancing, short term energy exchanges (APX Group and Nordpool), capacity mechanism
- Storage definition:
 - a form of *generation* whereby the electricity is converted into a form of energy that can be stored, that energy is stored and subsequently reconverted back into electricity.
- Participation:
 - Enhanced Frequency Response (load following)
 - Firm Frequency Response (more defined events)
 - CM contracts for 2018/19, 2020/21 and 2021/22 auctions.

Storage in Great Britain

- Context
 - 13GW of solar capacity by spring 2018.
 - 160,000 electric vehicles on British roads and growing.
 - Heat pumps and other storage developing.
- National Grid approved 'Social Energy's' domestic battery offering to provide demand side response and grid-balancing services such as frequency response.
- OFGEM approved derogations allowing Limejump to enter balancing mechanism with a VPP comprising technologies such as batteries and renewables (wind and solar).

Storage in Great Britain

- Current market design rules - many applications for 30 minute duration batteries (frequency response).
 - Traditionally pumped hydro, 96.11% de-rating factor.
 - Investment contributed to low clearing prices, below NetCONE.
 - ‘Stress events’ for UK energy networks typically => 2-hours.
- Now, de-rating factors reflect Equivalent Firm Capacity that could be replaced during periods of system stress.
 - Technology duration of >4 hours (flow batteries) continue with 96.11% de-rating factor.
 - 30 minute duration de-rated to 17.89%.
 - Contracts awarded in 2016 grandfathered to remain in place.
 - May push sector towards longer-duration batteries (?).

Storage in Great Britain

- EFC particular to specific set of conditions - should not be used as substitute for capacity outside of this very limited context. Caution use of EFC as capacity rating in auctions.
- Participation in multiple markets (eg. frequency response and balancing) overlapping in time ('either/or' trade-off options) may require exhaustion (or filling to capacity) of a storage unit shortly before requirement to respond to capacity stress event.
- Storage is self-dispatched and cost of failure to deliver is never more than capacity payment - more immediate and potentially higher revenues from other markets may reduce availability of limited duration storage.

Storage in North America - FERC order 841

- Markets - generally energy, ancillary services and capacity.
- Federal Energy Regulatory Commission (FERC) amending regulations to remove barriers to participation of electric storage resources *in capacity, energy, and ancillary services markets*.
 - 28 February 2018 FERC order 841 - Electric Storage Participation in Markets Operated by RTO and ISO's
<https://www.ferc.gov/media/news-releases/2018/2018-1/02-15-18-E-1.asp#.Wtlf8EUlfx> .
- Each RTO and ISO required to revise tariffs – establish participation model recognising physical and operational characteristics of storage resources and facilitate participation.
- Market design - technology neutral to provide equal access and reduce long term investment risk associated with development of new electric storage resources.

Storage in North America - FERC order 841

- Storage definition:
 - FERC Order No. 841: a resource that is capable of receiving electric energy from the grid and storing it for later injection of electric energy back to the grid.
- Narrow definition that limits or does not enable full technological capability of batteries may create barriers to entry, reducing competition and efficiency by inhibiting developers incentives to design storage resources to provide all capacity, energy and ancillary services that they can provide.
- Broader definition will ensure market rules not designed for any particular electric storage technology (batteries, flywheels, compressed air and pumped hydro).
- Will account for many different locations of batteries, whether situated on transmission or distribution system or behind the meter.

Storage in North America - FERC order 841

- Participation model must:
 - ensure resource using the model:
 - is eligible to provide all capacity, energy, and ancillary services that technically capable of providing in the markets;
 - can be dispatched and set wholesale market clearing price as both a wholesale seller and buyer, consistent with existing market rules governing when resource can set wholesale price.
 - account for physical and operational characteristics of resources through bidding parameters or other means; and
 - establish minimum size requirement for participation in RTO/ISO markets that does not exceed 100 kW.
- Each RTO/ISO must specify that sale of electric energy from markets to an electric storage resource that resource resells back to those markets must be at wholesale locational marginal price.

Storage in North America - New England

- Since 1970s, nearly 2,000 MWs of pumped-storage hydroelectric units, with total storage capability of nearly 12,000 MWhs.
- Participated in wholesale electricity markets since inception and can participate in energy, reserves, regulation, and capacity.
- Pumped-storage units are modeled in ISO's software, and participate in New England markets as two distinct asset types:
 - a dispatchable Generator Asset - submits offers to supply energy and offers to provide regulation; and
 - a Dispatchable Asset Related Demand (DARD) – submitting bids to consume energy to pump, typically when prices are low.
- Dispatch of either is sequential

Storage in North America – New England

- New storage technologies, with different characteristics not accounted for.
- ISO set out to build onto Generator Asset/DARD pumped-storage approach to provide means for storage technologies capable of continuously and rapidly transitioning between charging and discharging to participate simultaneously in energy, reserves, and regulation markets.
 - “rapid” means ability to transition between a facility’s maximum consumption capability and its maximum generation capability in 10 minutes or less,
 - “continuous” means ability to be dispatched to any MW level between facility’s maximum consumption capability and its maximum generation capability.

Storage in North America – New England

- The Proposal:
 1. the commitment process,
 2. energy market offers and energy market clearing,
 3. the regulation market,
 4. real-time telemetry,
 5. reserves, sustainability, and operating limit adjustments,
 6. self-dispatch, and
 7. settlement.

Other North American Markets

- PJM (Straw man proposal)
 - <https://www.pjm.com/-/media/committees-groups/committees/pc/20181011/20181011-item-09-electric-storage-participation-order-841.ashx>
 - <https://www.pjm.com/committees-and-groups/issue-tracking/issue-tracking-details.aspx?Issue=%7b736CAC88-9404-4421-B178-BD392366098F%7d>
- California
 - <http://www.caiso.com/participate/Pages/Storage/Default.aspx>
 - http://www.caiso.com/informed/Pages/StakeholderProcesses/EnergyStorage_DistributedEnergyResources.aspx
- NYISO
 - [http://www.nyiso.com/public/markets_operations/key_topics/topic/index.jsp?meta=EnergyStorage Int and Opt](http://www.nyiso.com/public/markets_operations/key_topics/topic/index.jsp?meta=EnergyStorage_Int_and_Opt)
- MISO Energy Storage Task Force
 - <https://www.misoenergy.org/stakeholder-engagement/stakeholder-feedback/order-841-compliance-proposals/>

Closer to home – the NEM

- Work is progressing through AEMO
 - potential strategic improvement - rules, procedures, systems
 - how to better integrate grid-scale ESS NEM, enabling the NEM framework to incorporate new business models.
- ❖ Stream 1 - define ESS and create new category for bi-directional technologies to facilitate participation, including integrating into dispatch with single offer, where required. Initially cover stand-alone. AEMO to submit rule change to AEMC by March 2019.
- ❖ Stream 2 - consult stakeholders and analyse appropriate participation model and requirements to facilitate aggregation of 'hybrid systems' (on-site generation or load offering to market as aggregate resource).

<https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Initiatives/Emerging-Generation-and-Energy-Storage-in-the-NEM---Grid-Scale>

Thank you

Ask any questions



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Agenda Item 10: Review of the MAC Constitution and MAC Appointment Guidelines and the 2019 MAC Composition Review

Meeting 2018_11_20

1. Background

The Rule Change Panel (**Panel**) has commenced:

- a review of the Market Advisory Committee (**MAC**) Constitution and MAC Appointment Guidelines; and
- the annual MAC composition review for 2019.

This paper provides background on these two processes. The MAC is asked whether they have any questions or comments on these processes.

2. Review of the MAC Constitution and MAC Appointment Guidelines Discussion

The Panel has commenced a review of the MAC Constitution and the MAC Appointment Guidelines to ensure consistency with the Wholesale Electricity Market Rules (**Market Rules**) and to reduce the administrative requirements for maintaining MAC membership. The Panel has conducted a preliminary review of both the MAC Constitution (Attachment 1) and MAC Appointment Guidelines (Attachment 2) and proposes to amend these documents to:

- (1) Evenly distribute the term for discretionary class members such that an approximately even split of discretionary class members' terms expire annually. Currently, the term of 7 discretionary class members expire in February 2019 and 2 in February 2020. Of the members whose terms expire in February 2019, the Panel proposes appointing 5 members for two-year terms with the remaining Market Generator representative and Market Customer representative to have one-year terms.
- (2) Remove some duplication of clauses between the Market Rules, the MAC Constitution and the MAC Appointment Guidelines. This reduces the likelihood of needing to amend the Constitution and/or MAC Appointment Guidelines if there is a change to the overlapping Market Rules, which will reduce administrative burden.¹
- (3) Make typographical changes to maintain consistent referencing, grammar and clarity of the meaning of some clauses.
- (4) Remove the requirement to manually contact Rule Participants (via physical letters), and instead publish the call for nominations on the Panel's website, emails to all contacts on the RCP contact list, and directly contact appropriate industry groups.
- (5) Refine the terms of appointment so that, where a member resigns or is removed, the term of any replacement will be for the remainder of the previous member's tenure. Currently, where a

¹ Clause 2.3.4 of the Market Rules requires public submissions whenever the MAC Constitution requires amendment, so decreasing the likelihood of needing to amend the MAC Constitution will reduce the administrative burden on the Panel and RCP Support.

member is removed (but not through resignation) and a replacement member is appointed, that member's term is for two years, not for the remainder of the previous member's term.

- (6) Remove transitional clauses that are no longer applicable.
- (7) Remove obsolete references, such as references to the IMO.
- (8) Clarify that MAC members may resign in writing or by email.
- (9) Clarify when the RCP Secretariat must convene a MAC meeting and when it may convene a MAC meeting.
- (10) Replace the no longer active RCP Secretariat email address with a reference to the email address published on the Panel's website, so there is no need to amend the MAC Constitution if the email address changes in the future.
- (11) Explicitly providing for the MAC to delegate responsibilities to MAC Working Groups.
- (12) Remove appendices that are no longer relevant because they are contained within the Market Rules.

Under clause 2.3.4 of the Market Rules, the Panel must invite public submissions when developing or amending the MAC Constitution. The Panel published an invitation for public submissions on Tuesday 13 November 2018 with a 20 day submission period, closing at 5:00 PM on Monday 10 December 2018.

3. 2019 MAC Composition Review

The Panel has commenced the annual MAC composition review. Seven discretionary class members' terms are due to expire in February 2019, as follows:

Name	Class
Vacant (previously Simon Middleton)	Market Customer
Geoff Gaston	Market Customer
Patrick Peake	Market Customer
Jacinda Papps	Market Generator
Wendy Ng	Market Generator
Shane Cremin	Market Generator
Peter Huxtable	Contestable Customer

Previous members are eligible to renominate and can be reappointed to the MAC.²

As indicated in section 2 of this paper, the Panel has commenced a review of the MAC Constitution and MAC Appointment Guidelines, and this review will be completed during the 2019 MAC Composition Review, so the evaluation panel appointed for the MAC Composition Review will take assess the candidates for positions on the MAC based on the revised MAC Constitution and MAC Appointment Guidelines.

As per the preliminary timetable above, the call for nominations for the vacant positions on the MAC is anticipated to be published by the 30 November 2018.

² Clause 4.8 of the MAC Constitution, dated May 2017.

4. Timeline

The timeline for the review of the MAC Constitution and MAC Appointment Guidelines, and for the MAC composition review for 2019 is as follows (steps for the MAC composition review for 2019 are highlighted in green).

Step	Date
Invitations for Submissions period (20 Business Days) for the Review of the MAC Constitution and MAC Appointment Guidelines	13/11/2018 – 10/12/2018
MAC meeting	20/11/2018
Call for Nominations for 2019 MAC Composition Review by end of November	30/11/2018
Revise the MAC Constitution and MAC Appointment Guidelines to reflect any submissions, and seek Panel approval	14/12/2018
Anticipated Panel approval of amendments to the MAC Constitution and MAC Appointment Guidelines	18/12/2018
Close of Call for Nominations for 2019 MAC Composition Review	31/12/2018
Commencement of MAC Constitution and Appointment Guidelines Amendments	2/1/2019
Evaluation Panel assessment	Before 31/1/2019
Panel approval of MAC appointments	21/2/2019
Nominees contacted	22/2/2019
Newly composed MAC starts at MAC meeting	12/3/2019

Attachments

- (1) Preliminary Review of the MAC Constitution and MAC Appointment Guidelines:
<https://www.erawa.com.au/rule-change-panel/consultations/2018-market-advisory-committee-constitution-and-appointment-guidelines>

Agenda Item 11: MAC Schedule

Meeting 2019_11_20

At its meeting on 9 September 2018, the Market Advisory Committee's (**MAC**) agreed to change its schedule so that it meets every six weeks, on Tuesday mornings, starting at 9:30 AM. The revised schedule for MAC meetings for the remainder of 2018/19 is as follows.

- November 2018: Tuesday, 20 November 2018
- December 2018: No meeting
- January 2019: No meeting
- February 2019: Tuesday, 5 February 2019
- March 2019: Tuesday, 12 March 2019
- April 2019: Tuesday, 30 April 2019
- May 2019: None
- June 2019: Tuesday, 11 June 2019