

Meeting Agenda

Meeting Title: Market Advisory Committee

Date: Wednesday 14 March 2018

Time: 12:30 PM – 2:45 PM

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

Item	Item	Responsibility	Duration
1	Welcome	Chair	5 min
2	Meeting Apologies/Attendance	Chair	5 min
3	Minutes from Previous Meeting	Chair	5 min
4	Actions Items	Chair	15 min
5	Update on AEMO's Market Procedures	AEMO	10 min
6	Network and Market Reform Program Update (no paper)	PUO	30 min
7	Market Rules		
	(a) Overview of Rule Change Proposals	RCP Support	15 min
	(b) RC_2018_03 – Capacity Credit Allocation Methodology for Intermittent Generators	Collgar Wind Farm	20 min
8	MAC Issues List	RCP Support	
	(a) Update on the MAC Market Rules Issues List (verbal update)	RCP Support	10 min
	(b) Roles in the Market	RCP Support	15 min
9	General Business (no paper)	Chair	5 min

Next Meeting: 11 April 2018

Please note, this meeting will be recorded.

Minutes

Meeting Title:	Market Advisory Committee (MAC)
Date:	14 February 2018
Time:	12:35 PM – 4:00 PM
Location:	Training Room No. 2, Albert Facey House 469 Wellington Street, Perth

Attendees	Class	Comment
Stephen Eliot	Chair	
Matthew Martin	Minister's Appointee – Small-Use Consumer Representative	
Martin Maticka	AEMO	
Dean Sharafi	System Management	
Sara O'Connor	Economic Regulation Authority (ERA) Observer	
Angelina Cox	Synergy	Proxy
Margaret Pyrchla	Network Operator	
Wendy Ng	Market Generators	
Andrew Stevens	Market Generators	
Jacinda Papps	Market Generators	To 3:25 PM
Shane Cremin	Market Generators	
Patrick Peake	Market Customers	
Alex Penter	Market Customers	Proxy
Geoff Gaston	Market Customers	
Steve Gould	Market Customers	
Peter Huxtable	Contestable Customers	

Apologies	Class	Comment
Will Bargmann	Synergy	
Simon Middleton	Market Customers	

Also in attendance	From	Comment
Jenny Laidlaw	RCP Support	Presenter, minutes
Richard Cheng	RCP Support	Presenter
Natalie Robins	ERA	Presenter
Ashwin Raj	Public Utilities Office (PUO)	Presenter, to 1.50 PM
Aditi Varma	PUO	Presenter
Bobby Ditric	PUO	Presenter
Daniel Kurz	Bluewaters Power	Presenter
Ignatius Chin	Bluewaters Power	Presenter
Thomas Coates	PUO	Observer
Duncan MacKinnon	Australian Energy Council	Observer
Noel Schubert		Observer
Laura Koziol	RCP Support	Observer

Item	Subject	Action
1	<p>Welcome</p> <p>The Chair opened the meeting at 12:35 PM and welcomed members and observers to the 14 February 2018 MAC meeting.</p>	
2	<p>Meeting Apologies/Attendance</p> <p>The Chair noted the apologies, attendance, and proxies, as listed above.</p>	
3	<p>Minutes from Previous Meeting</p> <p>The minutes of MAC meeting 2017-08 held on 13 December 2017 were circulated on 8 January 2018.</p> <p>The Chair noted a correction that was suggested by Mrs Jacinda Papps but inadvertently omitted from the draft minutes included in the meeting pack:</p> <p><i>Page 4, Section 5: Presentation – Balancing Offer Market Guideline, second dot point:</i></p> <ul style="list-style-type: none"> “Mrs Jacinda Papps asked whether the ERA intended for the new Guideline to replace the other SRMC guidance documents already published on the ERA website. Mr Arapis replied that the new Guideline was intended as a complementary paper rather than as a replacement for the previous documents.” <p>Subject to the change proposed by Mrs Papps, the MAC accepted the minutes as a true record of the meeting.</p>	

	<p>Action: RCP Support to amend the minutes of meeting 2017-08 to reflect the agreed changes and publish on the Rule Change Panel’s website as final.</p>	<p>RCP Support</p>
<p>4</p>	<p>Actions Arising</p> <p>The closed action items were taken as read.</p> <p>Action 19/2017: Mr Bobby Ditric noted that after further analysis, the PUO has concluded that the current arrangement for the provision of generator modelling information (under which Western Power provides the modelling information to AEMO, some of which is provided to Western Power by Market Participants under the Technical Rules) lacks transparency and makes a ‘quick fix’ solution to the concerns raised by MAC members difficult. The PUO intends to develop a more extensive rule change to specify the required modelling information more clearly, and to require that information to be provided by Rule Participants directly to AEMO. The PUO aimed to present a proposal at the next MAC meeting.</p> <p>Action 28/2017: Mr Martin Maticka noted that:</p> <ul style="list-style-type: none"> • AEMO is not obliged to publish dynamic refund factors until settlement, (but agreed this timing may cause difficulties for some Market Participants); • AEMO is not yet publishing spare capacity as required under the Market Rules; the necessary system updates have been expedited and are due for implementation in mid-April; • work has commenced on updates to the Market Procedure: Balancing Market Forecasts to provide guidance on how the provisional spare capacity is calculated; • AEMO is also working on a guideline to assist Market Participants to independently forecast dynamic refund factors; • AEMO is planning to develop a provisional spare capacity calculation, likely to be published after Outage data is finalised (15 days) and based on SCADA; and • AEMO is also working on changes to the Outstanding Amount calculation for prudential management, in parallel with RC_2017_06 (Reduction of the prudential exposure in the Reserve Capacity Mechanism), and proposes to provide an estimate of the dynamic refund rates as part of that work, which has an estimated implementation date of mid-to-late 2019. <p>In response to a question from Mrs Papps, Mr Maticka advised that the spare capacity details would be provided via the Market Participant Interface and web services, but probably not via AEMO’s public website.</p> <p>Action 29/2017: to be addressed under agenda item 4(a).</p> <p>Action 31/2017: Mr Maticka noted that AEMO had started work on the question of how to account for late logging of Forced Outages in settlement, but had found it to be less straightforward than originally expected. Mr Maticka confirmed that AEMO expected to provide</p>	

	<p>RCP Support with a rough order of magnitude estimate for the preferred option by 1 March 2018.</p> <p>Action 33/2017: The MAC agreed for this action item to be held over until early 2019, as the PUO is currently focussed on the major energy market reforms and would prefer to conduct its review of Protected Provisions following that process.</p> <p>Ms Wendy Ng asked whether the Minister’s rule-making powers that are due to expire on 1 July 2018 would be extended. Mr Matthew Martin replied that the PUO had not been instructed to make any changes to the relevant Regulations.</p> <p>Action 34/2017: Mr Maticka considered that the information needed by Market Participants to determine their forecast and actual LFAS and Spinning Reserve costs was generally available, but the costs could be difficult to determine, as the information was scattered over several locations. Mr Maticka indicated that AEMO was considering the development of a guide sheet for Market Participants on how to determine these costs, but noted the process could vary depending on the participant. Mr Maticka suggested that individual participants arrange to meet with AEMO’s operations team to walk through the process for determining their costs from available data.</p> <p>Mr Maticka also noted that the proposed changes to the Outstanding Amount calculation are expected to provide early estimates of all settlement quantities.</p> <p>Action 36/2017: to be addressed under agenda item 9.</p> <p>Action 41/2017: The Chair advised that AEMO intended to give a presentation to address this action item at the end of the meeting (under agenda item 10).</p>	
4(a)	<p>ERA Market Reviews Update (Action Item 29/2017)</p> <p>Ms Sara O’Connor gave a presentation on the ERA’s intentions regarding the periodic market reviews for which it became responsible in July 2017. The presentation is available on the Rule Change Panel’s website.</p> <p>The following points were discussed.</p> <ul style="list-style-type: none"> Ms O’Connor noted that when the ERA conducts a five-yearly review of the methodology for setting the Benchmark Reserve Capacity Price (BRCP) and the Energy Price Limits (EPLs) under clause 2.26.3 of the Market Rules, it must provide a report to the Minister but is not required to take any other action. This differed from the arrangements for other reviews, which required the ERA to develop Rule Change Proposals to implement its recommendations. Ms O’Connor <u>indicated that the ERA would like the support of another party to put forward a Rule Change Proposal to address this concern, and Mr Martin indicated that the PUO could help with this matter</u>noted that the ERA intended to ask the Minister to put a rule change through to address this concern. Mrs Papps questioned why the ERA could not use the rule change process to make this change. Ms O’Connor replied that the ERA’s governing body was reticent to propose something 	

	<p>that benefits the ERA, and so the change would need to be progressed by another party. Mrs Papps expected that the general preference would be for such a change to be progressed using the rule change process.</p> <ul style="list-style-type: none"> Mr Maticka questioned the suggested three-month timeframe (shown on slide 6 of the presentation) for rule changes arising from the ERA's next review of the Relevant Level Methodology. Ms O'Connor agreed that the rule change process would take longer than three months and indicated the ERA would take this into account in its detailed project planning. <p>Mr Maticka noted the additional time needed to implement system changes following the making of Amending Rules, and questioned if there was an opportunity, should the ERA identify any obvious rule change requirements early in its review, to commence the rule change process early (e.g. mid-2018). Ms O'Connor agreed that this might be possible if the draft report clearly showed some recommended changes and the ERA did not anticipate much feedback on those matters during the consultation period.</p> <ul style="list-style-type: none"> Ms O'Connor noted that the ERA wished to engage with stakeholders very early in the process for each review. The ERA was planning to hold a stakeholder workshop in mid-March 2018; and one of the items for discussion at that workshop was how the ERA should engage with stakeholders and report on progress to stakeholders during these reviews. There was some discussion about who could and/or should progress rule changes to implement the recommendations of a periodic review undertaken by the ERA. Mr Martin noted that the current Market Rules did not prevent the ERA from submitting a Rule Change Proposal to implement its recommendations. Ms Jenny Laidlaw noted that it may not be possible to implement the recommendations of the Relevant Level Methodology review in time for the 2019 Reserve Capacity Cycle, due to the time required for rule and IT changes. However, it would be possible to retain the current methodology for that Reserve Capacity Cycle and implement changes in time for a later Reserve Capacity Cycle. Mrs Papps queried the status of the legacy Rule Change Proposal RC_2014_05 (Reduced Frequency of the Review of the Energy Price Limits and the Maximum Reserve Capacity Price). Ms Laidlaw replied that the progression of RC_2014_05 was waiting on the outcomes of the ERA's review of the BRCP and EPL methodologies. Ms Laidlaw also noted that over the next five years the market was expected to undergo material changes that may affect the choice of BRCP and EPL methodologies. 	
<p>5(a)</p>	<p>ERA Presentation – Effectiveness of the Synergy Regulatory Regime 2016</p> <p>Dr Natalie Robins gave a presentation on the ERA's 2016 review of the Electricity Generation and Retail Corporation (EGRC)</p>	

Regulatory Scheme. The presentation is available on the Rule Change Panel's website.

The following points were discussed.

- Mr Andrew Stevens asked how the ERA had identified the demand for customised products for the purposes of its review. Dr Robins replied that the information for the 2016 calendar year had been requested from Synergy.
- Mr Stevens asked whether the ERA had considered ancillary service prices as well as energy prices. Dr Robins replied that the ERA had considered only energy prices in this review, but had taken ancillary service prices into account in its annual review of the effectiveness of the Wholesale Electricity Market (WEM).
- Dr Robins noted that in 2016 there were five buy transactions and only one sell transaction. In response to a question from Mr Shane Cremin, Dr Robins noted that the maximum transaction size was 5 MW.
- Dr Robins confirmed that the current buy-sell spread for Synergy's standard product offers was 20 percent. Mr Cremin questioned why Synergy did not reduce its buy-sell spread if it could maintain a 69 percent chance of being better off with a buy-sell spread of 10 percent, and suggested that Synergy did not actually want to sell any standard products.
- Mr Stevens asked if the ERA determined whether a change proposed by Synergy to its foundation transfer price mechanism was of a "minor or technical nature". Dr Robins replied that there was no requirement for Synergy to notify the ERA that it had made a change of this type. Further, the ERA had no authority to reject a change made by Synergy to its foundation transfer price mechanism if the ERA did not consider the change to be of a minor or technical nature.
- Dr Robins noted that the ERA had been meeting with the PUO about the recommendations of the 2016 review. Mr Martin noted that the PUO provided a first set of advice to the Minister when the ERA's report was submitted, and would be providing some further advice to the Minister in the near future. Mr Martin noted that, as highlighted in the presentation, there were several matters that need to be addressed. Some of these matters could be addressed fairly quickly, while others would take more time, and the PUO was seeking a mandate from the Minister to start the necessary work.
- In response to question from Mr Cremin, Mr Martin confirmed that there was no requirement for the Minister to respond to the report by a specific time.
- Mr Geoff Gaston noted that even if the Government ends the subsidy currently paid to Synergy, this will not remove all the cross-subsidisation in the market. Mr Cremin noted that at this time the subsidy was still only forecasted to be removed. Dr Robins replied that the ERA recognised that the foundation customers included both contestable and franchise customers.

	<p>There was some discussion about the difficulty of competing for Synergy’s contestable foundation customers.</p> <ul style="list-style-type: none"> • In response to a question from Mr Cremin, Dr Robins advised that the regime existed under the Electricity Corporations Act and the Electricity Corporations (Electricity Generation and Retail Corporation) Regulations. The standard product arrangements are covered in a Gazetted document that contains specifications around the products and the requirements for trade. • Dr Robins stressed that the Auditor General’s reports have found that Synergy has been compliant in all material respects with the scheme, and that the ERA’s concerns are with the legislation rather than any non-compliant behaviour from Synergy. • There was some discussion about the previous Government’s response to the ERA’s 2015 review of the scheme, and the likelihood of changes resulting from the 2016 review recommendations. • Ms Angelina Cox noted that Synergy wished to meet with the ERA to address the points raised in the presentation and look at the evidence behind some of the statements made. Ms Cox advised that Synergy would be happy to provide some responses to the matters raised for the consideration of the MAC. Synergy is willing to share the outcomes of the discussion with the ERA at the MAC, if appropriate. • Mr Patrick Peake suggested that if the Government did not act on the recommendations it would be up to privately-owned Market Participants to develop a set of products that ought to be made available by Synergy, propose these as a set of rule changes, and then bring them forward for discussion. 	
<p>5(b)</p>	<p>ERA Presentation – 2016/17 WEM Report</p> <p>Ms O’Connor gave a presentation on the ERA’s 2016-17 WEM Report to the Minister for Energy (WEM Report), which was published on 12 January 2018. The presentation is available on the Rule Change Panel’s website.</p> <p>The following points were discussed.</p> <ul style="list-style-type: none"> • Mr Ignatius Chin sought the PUO’s view on how the recommendations would influence the Minister’s reform program. Mr Martin replied that the PUO had been aware of the issues raised in the report and was working with AEMO on the scoping of changes to the market. The PUO was keen to ensure that the changes it was working on as part of the core market reform program are focussed on the implementation of the security constrained market model, rather than things that were fundamentally broken in the market now and should be addressed as soon as possible using ‘business as usual’ processes. <p>The PUO considered that quick changes can be made relatively soon to fix some of the problems, rather than waiting for the</p>	

	<p>implementation of the security constrained market model. The PUO hoped that any further changes to the Market Rules to empower AEMO to undertake market development rule changes would help in that process.</p> <ul style="list-style-type: none"> Mr Cremin considered the changes faced by the industry were so fundamental they would require policy and legislation change to address. Mr Cremin expressed concern that by aiming for ‘quick wins’ the market might miss an opportunity to actually make proper, flexible changes to the market, and questioned whether any thought had been given to re-establishing the original Electricity Reform Implementation Unit (ERIU) to develop a longer-term plan for market development. <p>Ms O’Connor noted that the ERA, in its Issues Paper for the WEM Report, had asked whether an overarching body, similar to the National Electricity Market’s Energy Security Board, should be established for the WEM. The general consensus in submissions was that the WEM was not large enough to warrant the establishment of such a body.</p> <ul style="list-style-type: none"> Mr Stevens considered that thermal and renewable generators have very different timelines for the development, and the current Reserve Capacity Cycle timelines may be not be appropriate for the shorter development timelines of renewable generators. There was some discussion about the ability of several aspects of the fundamental Reserve Capacity Mechanism design to handle likely future technology changes. 	
<p>6(a)</p>	<p>Overview of Rule Change Proposals</p> <p>The Chair noted that RCP Support was currently working on its resource plan and would provide a more detailed update to the MAC in March or April.</p> <p>The Chair noted that during January 2018 he met with nine MAC members and observers on a one-on-one basis, to gain an understanding of where the MAC processes were working well and what could be done to improve them.</p> <p>The role of the MAC was a reoccurring theme in these discussions. The Chair reiterated that the role of the MAC is to advise the Rule Change Panel on Rule Change Proposals. The Rule Change Panel does not have the power to develop Rule Change Proposals (unless they are required to correct a manifest error, or of a minor or procedural nature), and does not have a review role corresponding to that held by the Australian Energy Market Commission.</p> <p>The Chair reminded members that their role at the MAC was to represent the category to which they were appointed - not their individual companies - with the ultimate aim of promoting the Wholesale Market Objectives. The Chair noted that observers do not currently have a similar obligation under the Market Rules.</p> <p>The Chair noted that members had also commented on the need to make better use of the MAC’s time. To help achieve this outcome, RCP Support intended to make greater use of workshops and</p>	

	<p>Working Groups to discuss the more detailed aspects of Rule Change Proposals.</p> <p>The Chair advised that RCP Support intends to undertake a review of the MAC, ideally in the first half of 2018.</p> <p>The Chair noted that the Final Rule Change Report for RC_2017_10 (Correction of Gazettal Errors), which was published on 13 February 2018, contained a minor administrative error. An amended Final Rule Change Report was to be published within the following two days.</p> <p>The MAC noted the overview of Rule Change Proposals.</p>	
6(b)	<p>RC_2018_01 (New Notional Wholesale Meter Manifest Error) – Pre-Rule Change Proposal</p> <p>Mr Richard Cheng provided a brief overview of the Pre-Rule Change Proposal. No questions or concerns were raised by members or observers regarding the proposal.</p> <p>The MAC supported the progression of RC_2018_01 using the Fast Track Rule Change Process.</p>	
6(c)	<p>RC_2018_02 (K and U Parameters in Relevant Level Methodology for 2018 Reserve Capacity Cycle) – Pre-Rule Change Proposal</p> <p>Mr Maticka thanked those MAC members who provided support for AEMO's plan to develop the Pre-Rule Change Proposal.</p> <p>Mr Maticka noted that some respondents suggested an additional change in their feedback, to reset the review cycle under clause 4.11.3C of the Market Rules so the next review would cover three Reserve Capacity Cycles (2019, 2020 and 2021) instead of two (2019 and 2020). AEMO considered the suggestion but decided against it, as it went beyond the simple manifest error that was outlined. AEMO sought to make the simplest, smallest change that was feasible and would allow AEMO to use the Relevant Level Methodology for the 2018 Reserve Capacity Cycle.</p> <p>Ms Laidlaw questioned whether the previous Minister had intended the ERA's first review to cover two years instead of three, or whether this was an oversight. Mr Cremin considered that regardless of the original intent there was value in the next review covering a two-year period only. Mr Stevens agreed, considering that given the current rapid pace of change there was benefit in having a shorter review period.</p> <p>There was some discussion about the number of generators affected by the Relevant Level Methodology.</p> <p>Mrs Papps suggested leaving the drafting unchanged, noting that the ERA will have completed its review of the Relevant Level Methodology well before start of the 2021 Reserve Capacity Cycle. Ms O'Connor agreed, suggesting that the ERA consider the frequency of future reviews as part of its first review.</p> <p>The MAC supported the progression of RC_2018_02 using the Fast Track Rule Change Process.</p>	

<p>6(d)</p>	<p>RC_2014_03 (Administrative Improvements to the Outage Process) - Presentation</p> <p>Ms Laidlaw provided a further update on the Rule Change Proposal RC_2014_03 (Administrative Improvements to the Outage Process). The presentation is available on the Rule Change Panel’s website.</p> <p>The following points were discussed.</p> <ul style="list-style-type: none"> • In response to a question from Mr Stevens, Ms Laidlaw clarified that the ‘start-up time’ proposed to be included in the period of an Outage was the time that would be required for the generating unit to synchronise with the grid. • Ms Laidlaw noted the discussion at the 17 January 2018 workshop on the definition of Maximum Sent Out Capacity (MSOC). Ms Laidlaw asked Mr Sharafi whether AEMO might need to be able to dispatch the emergency capacity of a Scheduled Generator (i.e. any additional output that can be provided for short periods in emergency situations only) using its future automated dispatch engine. <p>Action: AEMO to advise whether it might need to be able to dispatch the emergency capacity of a Scheduled Generator (i.e. any additional output that can be provided for short periods in emergency situations only) using its future automated dispatch engine.</p> <ul style="list-style-type: none"> • Mr Peake suggested that the Declared Sent Out Capacity (DSOC) of a generating unit was set at 41 degrees Celsius and that a Market Generator was not permitted to exceed that limit. Ms Ng did not believe that DSOCs were temperature-limited. Ms Margaret Pырchla agreed to investigate the question and report back to the MAC. <p>Action: Western Power to provide an overview to the MAC on how Western Power sets the Declared Sent Out Capacity (DSOC) for a generating unit and the role of temperature in its determination process.</p> <ul style="list-style-type: none"> • There was some discussion about how and whether Market Generators were exempted from network penalties if they exceeded their DSOC at the request of System Management. Ms Laidlaw noted that the MAC had received advice in the past that Western Power did not normally penalise Market Generators in these circumstances. 	<p>AEMO</p> <p>Western Power</p>
<p>7</p>	<p>Update on AEMO’s Market Procedures</p> <p>Mr Sharafi noted that the 19 December 2017 meeting of the AEMO Procedure Change Working Group (APCWG) discussed two new proposed Market Procedures, namely the Power System Operation Procedure (PSOP): Tolerance Ranges, and the Monitoring and Reporting Protocol. Both procedures were currently out for public consultation.</p>	

	<p>Mr Sharafi advised that the next meeting of the APCWG was scheduled for 19 February 2018 and would focus on changes to the PSOP: Communications and Control Systems and the IMS Interface Market Procedure. AEMO proposed to discuss changes to the PSOP: Facility Outages at a future meeting, probably in March 2018.</p> <p>The MAC noted the update on AEMO's Market Procedures.</p>	
<p>8</p>	<p>Network and Market Reform Program Update</p> <p>Mr Ashwin Raj and Mr Martin gave an update on the Minister's network and market reform program. A copy of the presentation is available on the Rule Change Panel's website.</p> <p>The following points were discussed.</p> <ul style="list-style-type: none"> • Mr Raj noted that the three consultation papers due to be published by the end of January 2018 were now expected to be published within one to two weeks. The PUO intended to hold an industry forum once the papers were out for consultation (tentatively during the week commencing 12 March 2018) to give stakeholders an opportunity to ask questions and provide early feedback. The PUO planned to complete its consultation on the papers by around 23 March 2018. • Mr Raj noted that the PUO had held several one-on-one meetings with industry on the reforms and intends to continue this process of engagement. The PUO intends to adjust its stakeholder engagement process once the legislation is introduced to Parliament, at which time in-depth consultation with industry on the detailed design is likely to commence. • Mrs Papps asked whether the submission periods for the three papers would all close on the same day and raised a concern about the burden on Market Participants with small regulatory teams. Mr Raj replied that the tentative close date was currently 23 March 2018 for all three papers, but the PUO would consider extending that deadline. Mr Raj noted that any extension would apply to all stakeholders. • Mr Raj clarified that the milestone "2020 Capacity Cycle commences under a new approach" in slide 2 of the presentation referred only to changes to the certification processes. • Mr Peake considered it would be very helpful to Market Participants to hear from Western Power about what changes will be made to the network access application process. • Mr Martin noted that the PUO was working with AEMO to provide it with the certainty it needs to prepare <u>a funding submission for a defined scope of work and subsequently establish a project team</u> its board submission for funding its scope of work. The PUO intended to focus on the areas of work where further policy definition was needed, e.g. gate closure, whereas AEMO would be looking at the more consequential changes relating to the outage planning framework, etc. 	

	<ul style="list-style-type: none"> • Mr Martin noted that the PUO was hiring a consultant to determine the best fit for purpose model going forward for ancillary service arrangements. The PUO was also looking at what changes could be made to Synergy’s operations (with regard to facility bidding) now rather than in 2022, and intended to present a concept paper on the matter to the MAC in the near future. • Mr Martin advised that Ms Kate Ryan had joined the project team. The PUO also intended to hire an external consultant to provide it with technical advice on market design and project management, as well as a legal consultant to assist with drafting. • In response to a question from Mrs Papps, Mr Martin clarified that the PUO was considering changes to introduce facility bidding for some Synergy Facilities early, as it considered there were efficiency gains to be realised by doing so. Ms Aditi Varma added that the PUO was looking at the technical changes required to bring certain Facilities out of the Balancing Portfolio. • Mr Peake asked what needed to be resolved before a decision can be made on the new dispatch engine. Mr Martin replied that while the PUO intended to leave the choice of dispatch engine to AEMO, it was predicating its work on the assumption that the new dispatch engine will have the same functionality as the National Electricity Market Dispatch Engine (NEMDE). There was some discussion about the choice of dispatch engine and when Market Participants would be provided with greater clarity about the technical implications of that choice for their operations. • Mr Maticka noted that AEMO was developing a more staged implementation plan, with a lower resource profile and lower impact on industry, than was developed for the Electricity Market Review. • Mr Martin sought the views of the MAC on the need for a MAC constituted Working Group to work on technical details of the proposed WEM reforms. Mr Martin proposed that the PUO would present concept papers to the MAC and then take the work to the next level of detail with a Working Group. <p>Ms Laidlaw considered there were several options for consulting on detailed technical matters, including a single MAC Working Group, multiple MAC Working Groups and the use of ad-hoc workshops to discuss particular issues. Mr Stevens favoured the idea of specific Working Groups for specific topics, each with well-defined scopes.</p> <p>The MAC supported the concept of establishing one or more MAC Working Groups to assist with the technical details of the Minister’s reform program.</p>	
<p>9</p>	<p>Update on the MAC Market Rules Issues List</p> <p>Ms Laidlaw provided a progress update on the MAC Market Rules Issues List. The following points were discussed.</p>	

	<ul style="list-style-type: none"> • Ms Laidlaw noted that RCP Support had asked MAC members and observers to provide suggested urgency ratings for the potential Rule Change Proposals discussed at the 13 December 2017 MAC meeting. A summary of the responses received was included in the paper for this agenda item. • Ms Laidlaw noted that Bluewaters offered to develop one of the Rule Change Proposals and to assist with the development of another. No other offers to develop (or assist in the development of) any of the Rule Change Proposals were received. The Chair reiterated that the Rule Change Panel did not have the authority to develop a Rule Change Proposal of this type. • Mr Chin asked what would be the next steps for the potential Rule Change Proposals. Ms Laidlaw replied that RCP Support planned to present the MAC’s feedback at the 22 February 2018 Rule Change Panel meeting, and obtain from the Rule Change Panel a preliminary urgency rating for each issue. RCP Support would then publish the results for the consideration of stakeholders. <p>Mr Cremin suggested that Bluewaters wait until the Rule Change Panel’s preliminary urgency ratings are published before deciding whether to proceed with the development of its Rule Change Proposals. Mr Cremin noted however that if Bluewaters could develop a convincing case for its proposal then this may result in the Rule Change Panel revising its preliminary urgency rating.</p> <p>Mr Chin asked if Bluewaters would have an opportunity to demonstrate the benefits of its Spinning Reserve cost allocation proposal before the Rule Change Panel assigns its preliminary urgency ratings. Mr Stevens suggested that Bluewaters give a presentation to the MAC on the case for the proposal. The Chair supported Mr Stevens’ suggestion.</p> <ul style="list-style-type: none"> • There was some discussion about the potential costs and benefits of Bluewaters’ Spinning Reserve cost allocation proposal and the alternative ‘full runway’ proposal. • Mr Martin noted that the PUO considered the full runway methodology was a quick win that can be implemented relatively quickly and easily for the benefit of participants. The PUO was therefore doing some work to develop a concept paper or Pre-Rule Change Proposal for presentation to the MAC in the near future. • Ms Laidlaw noted that RCP Support proposed to schedule preliminary discussions of the seven broader review topics identified by the MAC in the order shown in Table 3.1 of the agenda item paper. Ms Laidlaw sought the views of the MAC on the proposed order. • Mr Martin asked about the first proposed discussion (“review of agency roles and responsibilities”) in light of the views expressed in the Final Rule Change Report for RC_2017_05 (AEMO Role in Market Development) regarding the difficulty of 	
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	<p>defining the boundaries of AEMO's market development role in the WEM.</p> <p>Ms Laidlaw clarified that the review topic encompassed two types of issues. The first type were lower level questions such as who should be responsible for maintaining the list of document retention requirements (described in clause 10.1.1 of the Market Rules), who should be responsible for the Benchmark Reserve Capacity Price Market Procedure, etc.</p> <p>The second type of issue relates to broader questions of responsibility for market development. Ms Laidlaw noted that the Final Rule Change Report for RC_2017_05 reflected the Rule Change Panel's views, and the proposed MAC discussion was not intended to develop a definition of AEMO's market development role.</p> <ul style="list-style-type: none"> • There was some discussion about the order in which discussions on the treatment of storage facilities in the market, behind-the-meter issues and the basis of allocation of Market Fees should be scheduled. Following this discussion there was general agreement to schedule the preliminary discussions in the order in which they are listed in Table 3.1 of the agenda item paper. 	
<p>10</p>	<p>General Business</p> <p><u>2018 MAC Composition Review</u></p> <p>The Chair noted that the evaluation panel for the 2018 MAC composition review had completed its work. The evaluation panel's recommendations would be considered by the Rule Change Panel at its meeting on 22 February 2018. The Rule Change Panel's decision was expected to be published shortly after that meeting.</p> <p><u>Presentation – Efficiency in the Margin Values and Spinning Reserve Procurement Processes (Action Item 41/2017)</u></p> <p>Mr Matthew Fairclough gave a presentation on the work done by AEMO to investigate whether rule changes were needed to improve efficiency in the Spinning Reserve procurement process by allowing Market Generators to offer additional Spinning Reserve in response to a draft margin values determination. A copy of the presentation is available on the Rule Change Panel's website.</p> <p>The following points were discussed.</p> <ul style="list-style-type: none"> • In response to a question from Ms Laidlaw, Mr Fairclough clarified that the "draft margin value determination" was the margin values submission made to the ERA by AEMO. • Mr Chin asked whether the ERA was permitted under the Market Rules to retrospectively adjust the margin values at the completion of the Spinning Reserve procurement process. Mr Sharafi replied that the margin values for a Financial Year cannot be amended once they are approved by the ERA. • Mr Stevens suggested that most thermal generators were already complying with the requirements for Spinning Reserve. Mr Fairclough replied that the requirements for the provision of 	

	<p>Spinning Reserve exceeded the governor response requirements in the Technical Rules; further, it was possible that a generator could be compliant with the Technical Rules but unable to provide the service. Ms Laidlaw noted that to provide Spinning Reserve, a generating unit needed to sustain its governor response for longer than was required under the Technical Rules.</p> <ul style="list-style-type: none"> • Mr Fairclough noted that if AEMO contracts too much non-Synergy Spinning Reserve then this can cause the total cost of Spinning Reserve to increase. Mr Chin considered that this was evidence of the importance of conducting sensitivity analyses around the quantity of contracted Spinning Reserve. • There was some discussion about how a generating unit contracting to provide Spinning Reserve at some fraction of Synergy's administered price could increase the overall annual cost of Spinning Reserve to Market Generators. • It was noted that AEMO would give the same presentation at its next WA Electricity Consultative Forum/Generator Forum on 20 February 2018. There was general agreement to continue the discussion of AEMO's suggested approach at that forum. <p><u>Abolition of the Independent Market Operator (IMO)</u></p> <p>Mr Martin noted that the PUO was working on changes the Regulations and Market Rules with regard to the abolition of the IMO. While the proposed amending rules were fairly straightforward, the PUO intended to circulate a draft to the MAC for out of session consultation very shortly.</p>	
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The meeting closed at 4:00 PM.

Agenda Item 4: MAC Action Items

Meeting 2018_03_14

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/progress
19/2017	The PUO to consult with AEMO and RCP Support on how to address the concerns raised by MAC members about the 2017/03 Amending Rules and develop a proposal for consideration at the next MAC meeting.	PUO/AEMO/ RCP Support	August 2017	Open
28/2017	AEMO to investigate and report to the MAC on: <ul style="list-style-type: none"> (a) the timing and content of the information provided to Market Participants on dynamic refund rates under the Market Rules; (b) whether the required information is currently provided in accordance with the Market Rules, and, if not, when it is expected to be; and (c) any options to improve the content and/or timeliness of the information provided to Market Participants on dynamic refund rates. 	AEMO	November 2017	Open
29/2017	The ERA to provide an update to the MAC on the proposed order and timing of the upcoming periodic market reviews that the ERA is required to conduct under the Market Rules.	ERA	November 2017	Closed

Item	Action	Responsibility	Meeting arising	Status/progress
31/2017	AEMO to investigate and report back to the MAC on the simplest and cheapest option for changes to ensure that the late logging of a Forced Outage by a Generator would result in the appropriate settlement adjustment outcomes (i.e. correct payment of capacity refunds and the recovery of any unwarranted constrained off compensation).	AEMO	November 2017	Open
33/2017	The PUO to review the current list of Protected Provisions in the Market Rules to determine if any of the provisions no longer need to be Protected Provisions.	PUO	November 2017	Open Held over to early 2019
34/2017	AEMO to investigate what simple options might exist to improve the accessibility and timeliness of the information provided to Market Participants on LFAS and Spinning Reserve costs.	AEMO	November 2017	Open
36/2017	RCP Support to schedule preliminary MAC discussions covering the following topics: <ul style="list-style-type: none"> the RCM (excluding its pricing mechanisms); behind-the-meter issues; the treatment of storage facilities in the WEM; the basis for the allocation of Market Fees; review of agency roles and responsibilities; Commissioning Tests; and forecast quality. 	RCP Support	November 2017	Closed
41/2017	AEMO to investigate and report to the MAC on whether a rule change is needed to improve efficiency in the Spinning Reserve procurement process by allowing Market Generators to offer additional Spinning Reserve in response to the draft margin values determination	AEMO	December 2017	Open
1/2018	RCP Support to amend the minutes of meeting 2017-08 to reflect the agreed changes and publish on the Rule Change Panel's website as final.	RCP Support	February 2018	Closed

Item	Action	Responsibility	Meeting arising	Status/progress
2/2018	AEMO to advise whether it might need to be able to dispatch the emergency capacity of a Scheduled Generator (i.e. any additional output that can be provided for short periods in emergency situations only) using its future automated dispatch engine.	AEMO	February 2018	Open
3/2018	Western Power to provide an overview to the MAC on how Western Power sets the Declared Sent Out Capacity (DSOC) for a generating unit and the role of temperature in its determination process.	Western Power	February 2018	Open

MARKET ADVISORY COMMITTEE MEETING, 14 MARCH 2018

FOR NOTING

SUBJECT: UPDATE ON AEMO'S MARKET PROCEDURES

AGENDA ITEM: 5

1. PURPOSE

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

2. AEMO PROCEDURE CHANGE WORKING GROUP (APCWG)

	Most recent meeting	Next meeting
Date	19 February 2018	TBA
Market Procedures for discussion	<ul style="list-style-type: none"> PSOP: Communications and Control Systems IMS Interface 	Agenda to potentially include <ul style="list-style-type: none"> PSOP: Facility Outages Market Procedure: Balancing Market Forecasts PSOP: Commissioning and Testing

3. AEMO PROCEDURE CHANGE PROPOSALS

The status of AEMO Procedure Change Proposals is described below, current as at 6 March 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.

ID	Summary of changes	Status	Next steps	Date
AEPC_2017_12: Reserve Capacity Security	The proposed updates aim to improve the process for Market Participants providing Reserve Capacity Security as a Security Deposit, specify the process for AEMO to follow in determining when to Draw Upon Reserve Capacity Security, and generally reduce complexity and improve clarity.	Considered by APCWG 4 Sep 2017. On hold pending consideration of potential rule change.	Publish Procedure Change Proposal	TBA
AEPC_2018_01: Monitoring and Reporting Protocol	The new Monitoring and Reporting Protocol details how AEMO implements its obligations to support the ERA's monitoring of compliance with the Market Rules.	Submissions closed 26 Feb 2018. Four submissions received.	Prepare Procedure Change Report for ERA consideration	TBA
AEPC_2018_02: PSOP: Tolerance Ranges	The new PSOP: Tolerance Ranges documents the procedure for determining and reviewing the Tolerance Range and any Facility Tolerance Range.	Consultation open	Submissions close	7 Mar 2018
AEPC_2018_03: PSOP: Communications and Control Systems	The proposed amendments will update the procedure in line with current AEMO standards and add content previously placed in the IMS Market Procedure.	Considered by APCWG 19 Feb 2018.	Publish Procedure Change Proposal	March 2018
AEPC_2018_05: IMS Interface	The proposed amendments are consequential, arising from the amendment to the PSOP: Communications and Control Systems	Considered by APCWG 19 Feb 2018.	Publish Procedure Change Proposal	March 2018

Agenda Item 7(a): Overview of Rule Change Proposals

Meeting 2018_03_14

- Changes to the report provided at the previous MAC meeting are shown in **red font**.
- The next step and the timing for the next step is provided for Rule Changes that are currently being actively progressed by the Rule Change Panel or the Minister.
- Timing is listed as TBD for all Rule Change Proposals that are not currently being actively progressed. The Rule Change Panel is developing a resource plan that will allow it to provide more accurate next steps and timing for next steps for these Rule Change Proposals.

Formally Submitted Rule Change Proposals (as at 7 March 2018)

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
Rule Change Proposals awaiting Approval by the Minister						
RC_2017_10	18/01/2018	Rule Change Panel	Correction of Gazettal Errors	High	Final Rule Change Report published 13/02/2018, awaiting Minister's approval.	19/03/2018
RC_2017_05	07/07/2017	AEMO	AEMO Role In Market Development	High	Final Rule Change Report published 20/12/2017, awaiting Minister's approval. The Minister had extended his deadline for approval.	21/03/2017
Standard Rule Change Proposals with Second Submission Period Closed						
RC_2017_06	17/07/2017	AEMO	Reduction of the prudential exposure in the Reserve Capacity Mechanism	High	Publish Call for Further Submissions	TBD

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
RC_2014_07	22/12/2014	IMO	Omnibus Rule Change	Low	Publication of Final Rule Change Report	TBD
RC_2014_10	13/01/2015	IMO	Provision of Network Information to System Management	Superseded	Publication of Final Rule Change Report	TBD
Standard Rule Change Proposals with Second Submission Period Open						
None						
Standard Rule Change Proposals with First Submission Period Closed						
RC_2014_06	28/01/2015	IMO	Removal of Resource Plans and Dispatchable Loads	Medium	Draft Decision Report	TBD
RC_2014_03	27/01/2014	IMO	Administrative Improvements to the Outage Process	High	Draft Decision Report	TBD
RC_2013_15	24/12/2013	IMO	Outage Planning Phase 2 – Outage Process Refinements	Medium	Publication of Draft Rule Change Report	TBD
RC_2014_05	02/12/2014	IMO	Reduced Frequency of the Review of the Energy Price Limits and the Maximum Reserve Capacity Price	Medium	Publication of Draft Rule Change Report	TBD
RC_2014_09	13/03/2015	IMO	Managing Market Information	Low	Publication of Draft Rule Change Report	TBD
RC_2015_01	03/03/2015	IMO	Removal of Market Operation Market Procedures	Low	Publication of Draft Rule Change Report	TBD
RC_2015_03	27/03/2015	IMO	Formalisation of the Process for Maintenance Requests	Low	Publication of Draft Rule Change Report	TBD

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
RC_2017_02	04/04/2017	Perth Energy	Implementation of 30-Minute Balancing Gate Closure	Medium	Publication of Draft Rule Change Report	TBD

Standard Rule Change Proposals with the First Submission Period Open

RC_2018_03	01/03/2018	Collgar Wind Farm	Capacity Credit Allocation Methodology for Intermittent Generators	TBD	Publication of Draft Rule Change Report	TBD (nominally 22/05/2018)
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Rule Change Proposals Commenced since the last MAC Meeting

Reference	Submitted	Proponent	Title	Commencement
None				

Gazetted Rule Changes not yet Commenced

Gazette		Content	Commencement
Number	Date		
2016/89	31/05/2016	Wholesale Electricity Market Amending Rules 2016, Schedule B, Part 4 <i>Further changes to the Reserve Capacity Mechanism involving Reviewable Decisions</i>	A time specified by the Minister in a notice published in the <i>Gazette</i>

Rule Changes Proposed by the Minister open for Consultation

Reference	Proponent	Description	Next Step	Timing
N/A	Public Utilities Office	Draft amendments to the Market Rules to facilitate abolition of the IMO	Gazettal of the Amending Rules (consultation on the draft Amending Rules closes 12/03/2018)	TBD

Potential Rule Changes in the Pre-Rule Change Proposal Stage

Reference	Proponent	Description	Next Step	Timing
RC_2018_01	Rule Change Panel	New Notional Wholesale Meter Manifest Error	Submit the Rule Change Proposal	TBD

Agenda Item 7(b): Rule Change Proposal RC_2018_03: Capacity Credit Allocation Methodology for Intermittent Generators

Meeting 2018_03_14

1. The Proposal

Collgar Wind Farm (**Collgar**) submitted Rule Change Proposal RC_2018_03 on 1 March 2018. Collgar is proposing changes to the Relevant Level Methodology in Appendix 9 of the Wholesale Electricity Market Rules (**Market Rules**) to change how Certified Reserve Capacity is assigned to Intermittent Generators.

The Rule Change Panel has decided to progress RC_2018_03 on the basis that due consideration should be given to whether the proposal will allow the Market Rules to better address the Wholesale Market Objectives. The Rule Change Panel published a Rule Change Notice for RC_2018_03 on 7 March 2018.

RCP Support notes that the Economic Regulation Authority (**ERA**) is required by the Market Rules to undertake three-yearly reviews of the Relevant Level Methodology. The ERA is planning to commence its next such review within the next few months, and intends to complete that review before the end of 2018.

A copy of the Rule Change Proposal is provided in Attachment 1 of this paper.

2. Recommendation

It is recommended that the MAC:

- discusses Collgar's Rule Change Proposal;
- considers the urgency rating that should be recommended to the Rule Change Panel for the Rule Change Proposal;¹ and
- notes that the first submission period for the Rule Change Proposal closes at **5:00 PM on Friday, 20 April 2018**.

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: <ul style="list-style-type: none"> • 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). |



Wholesale Electricity Market Rule Change Proposal

Rule Change Proposal ID: RC_2018_03
Date received: 1 March 2018

Change requested by:

Name:	Fan Zhang
Phone:	08 6142 6373
Email:	fan.zhang@collgar.com.au
Organisation:	Collgar Wind Farm
Address:	5/682 Murray St, West Perth WA 6005
Date submitted:	1 March 2018
Urgency:	High
Rule Change Proposal title:	Capacity Credit Allocation Methodology for Intermittent Generators
Market Rule(s) affected:	10.5.1, 11, Appendix 9

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:

Currently, Non-Scheduled Generators such as wind farms and solar farms are allocated Capacity Credits using the Relevant Level Methodology as set out in clause 4.11.2(b) and Appendix 9 of the Market Rules. Collgar Wind Farm considers the Relevant Level Methodology is flawed and discriminate against intermittent generation technologies as the approach appears arbitrary and overly conservative in allocating Capacity Credits to intermittent generators.

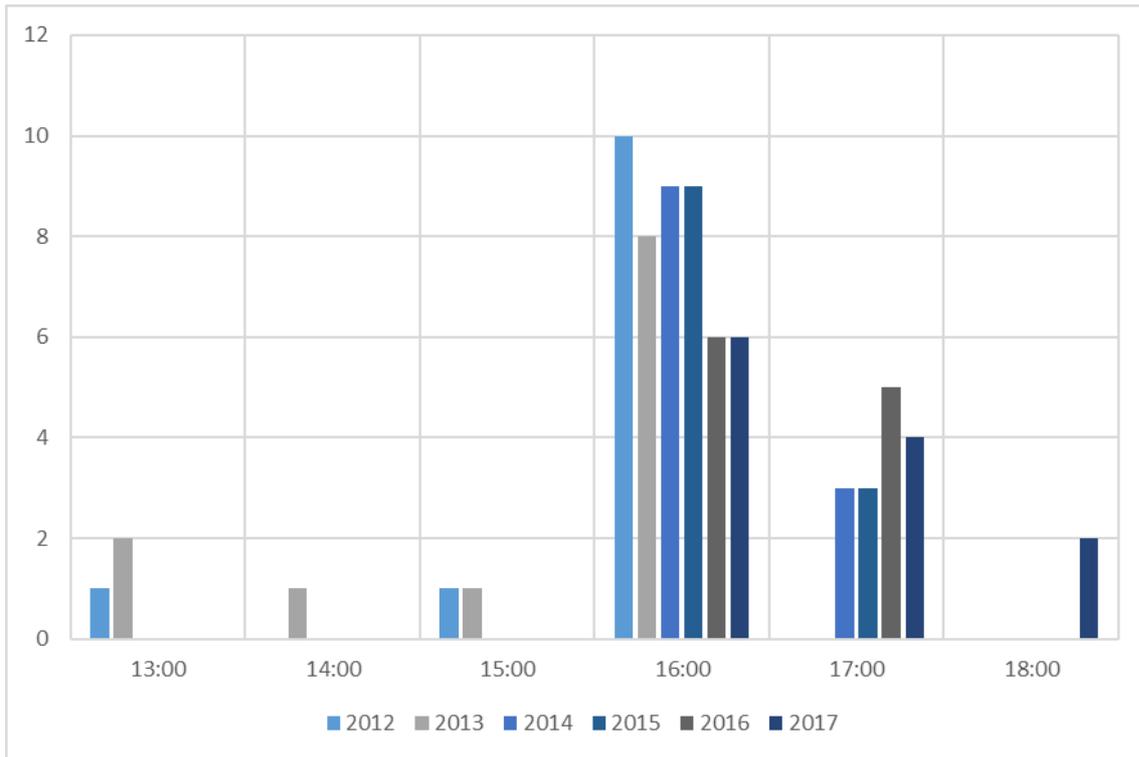
The current Relevant Level Methodology makes use of the concept of Load for Scheduled Generation (LSG) which is derived as the total metered load on the system less the metered output of all Non-Scheduled Generators. The current methodology uses the output of Non-Scheduled Generators during the 12 peak LSG Trading Intervals in each of the last 5 years as the basis for the Capacity Credit allocation to Non-Scheduled Generators.

Collgar Wind Farm was one of the many industry participants opposed to the introduction of the LSG concept with the implementation of Rule Change 2011 25 entitled "Calculation of the Capacity Value of Intermittent Generation – Methodology 1 (IMO)" (RC 2011 25) on 1 January 2012. One of our main concerns remain valid: The LSG concept does not provide a direct link between the requirement for capacity to meet system peak periods and the ability of capacity providers to make capacity available during these peak periods.

Market Customers are required to surrender Capacity Credits in proportion to their median load during the 12 peak intervals each year. These intervals are referred to as the Individual Reserve Capacity Requirement (IRCR) intervals and are made up by the 3 peak intervals on each of the 4 peak load days of the Hot Season (December to March). Scheduled Generators are allocated Capacity Credits based on their ability to sustain output during peak conditions as defined by the de-rated capacity of the generator at 41C, and this provides a good approximation to their ability to provide capacity during the IRCR intervals.

With the increasing penetration of rooftop Photo Voltaic (PV) systems installed behind the meter the traditional peak times in the middle of the day are being shifted to later periods in the day. This is illustrated in Figure 1, showing LSG intervals increasingly shifting to the later Trading Intervals in the day¹. Some LSG intervals in recent years have even shifted out of the traditional peak period with LSG intervals occurring for example on 8 June 2016 and 12 July 2016. LSG intervals are no longer necessarily falling in similar periods to IRCR intervals and therefore do not represent a reasonable representation of the ability of intermittent generators to provide capacity support to the system during the true peak periods on the system when such support is of most value.

Figure 1: LSG intervals by time period 2012 - 2017



One of the stated objectives when introducing the LSG concept in the WEM Rules was to put in place a methodology that more accurately recognised the contribution of PV to overall system capacity. With LSG periods shifting to 5 pm and later, this will impact significantly in a negative direction on solar farms in particular, despite these facilities generally being available with high capacity factors during the traditional peak periods where the underlying “gross” demand on the system is at the highest.

Collgar Wind Farm believes that as a first step in rectifying the methodology for allocating Capacity Credits to intermittent generators the concept of LSG in the WEM Rules need to be removed and replaced with intervals selected from the actual system peak periods. This will provide a more direct link between the requirement for capacity in peak periods and the ability of intermittent generators to provide capacity during those periods of the highest demand on the system. Collgar Wind Farm considers this will be an important step in addressing discrimination against intermittent generation technologies.

Collgar Wind Farm is also of the view that further and more significant reform of the mechanism for allocating Capacity Credits may be required and would support a coordinated process to

¹ The trend for the actual peak Trading Intervals for the SWIS and therefore the IRCR intervals is similar in that they are generally shifting to later periods in the day.

do this. For example, we remain unconvinced as to the use of the Facility Adjustment Factors contained in Appendix 9. In the interest of expediency in rectifying the core of the issue (the use of the LSG concept) our proposal contained in this document represents a “small step” in the right direction and only addresses the selection of intervals that forms the basis for the assessment of the Relevant Level.

The proposal contained in this document should be progressed and implemented as soon as possible as we believe it represents a relatively easy and cost-effective way of immediately alleviating the situation and improve the ability to facilitate all Market Objectives, except for Market Objective (e), which we consider will not be impacted negatively or positively.

2. Explain the reason for the degree of urgency:

Collgar Wind Farm believes this rule change proposal can be progressed using the normal rule change process.

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)

Collgar Wind Farm proposes to remove the concept of LSG in determining the Relevant Level contained in Appendix 9. In place of the 60 LSG intervals that are currently made up from each of the 12 highest LSG intervals, from each of the last 5 years, and all occurring on separate days Collgar Wind Farm proposes that Load for Relevant Level (LRL) intervals be used and selected as follows: For each of the previous 5 years identify the 12 intervals with the highest aggregate demand on the system, with each of those 12 intervals occurring on separate days. The resulting 60 intervals will make up the data set upon which to assess the Relevant Level, which is the basis for allocation of Capacity Credits as per the Appendix 9 of the WEM Rules.

With the removal of the LSG concept it will also be necessary to make some flow on adjustments to the way that new facilities are treated compared to existing facilities.

The following amendments to the WEM Rules are proposed to affect the change:

Clause 10.5.1(x) amended as follows:

- x. the following information identified for a Reserve Capacity Cycle under the Relevant Level Methodology—
 - 1. the ~~Existing Facility Load~~ for ~~Scheduled Generation~~Relevant Level for each Trading Interval in the five year period determined under step 1(a) of the Relevant Level Methodology; and
 - 2. the 12 Trading Intervals occurring on separate Trading Days with the highest ~~Existing Facility Load~~ for ~~Scheduled Generation~~Relevant Level for each 12 month period in the five year period; and

Definitions in Chapter 11 Glossary amended as follows:

Existing Facility Load for Scheduled Generation Relevant Level: Means the MWh quantity determined for a Trading Interval under step 7 of the Relevant Level Methodology.

New Facility Load for Scheduled Generation: Means, for a new or upgraded Facility that has applied to be assigned Certified Reserve Capacity under clause 4.11.2(b), the MWh quantity determined for a Trading Interval under step 11 of the Relevant Level Methodology for that Facility and the relevant Reserve Capacity Cycle.

Appendix 9 to be amended as follows:

Appendix 9: Relevant Level Determination

This Appendix presents the methodology for determining the Relevant Levels for Facilities that have applied for certification of Reserve Capacity under clause 4.11.2(b) for a given Reserve Capacity Cycle (“Candidate Facility Facilities”).

For the purposes of the Relevant Level determination in this Appendix 9:

- the full operation date of a Candidate Facility for the Reserve Capacity Cycle (“Full Operation Date”) is:
 - the date provided under clause 4.10.1(c)(iii)(7) or revised in accordance with clause 4.27.11A, where at the time the application for certification of Reserve Capacity is made the Facility, or part of the Facility (as applicable) is yet to enter service; or
 - the date most recently provided for a Reserve Capacity Cycle under clause 4.10.1(k) otherwise; and
- a Candidate Facility will be considered to be:
 - a new candidate Facility, if the five year period identified in step 1(a) of this Appendix commenced before 8:00 AM on the Full Operation Date for the Facility (“New Candidate Facility”); or
 - an existing Candidate Facility (“Existing Candidate Facility”), otherwise.

AEMO must perform the following steps to determine the Relevant Level for each Candidate Facility:

Determining Existing Facility Load for Scheduled Generation Relevant Level

Step 1: Identify:

- (a) the five year period ending at 8:00 AM on 1 April of Capacity Year 1 of the relevant Reserve Capacity Cycle;
- (b) any 12 month period, from 1 April to 31 March, occurring during the five year period identified in step 1(a), where the 12 Trading Intervals with the highest ~~Existing Facility Load for Scheduled Generation~~ Relevant Level in

that 12 month period have not previously been determined under this Appendix 9; and

- (c) any 12 month period, from 1 April to 31 March, occurring during the five year period identified in step 1(a), where the 12 Trading Intervals with the highest ~~Existing Facility Load for Scheduled Generation~~ Relevant Level in that 12 month period have previously been determined under this Appendix 9.

Step 2: Determine the quantity of electricity (in MWh) sent out by each Candidate Facility using Meter Data Submissions for each of the Trading Intervals in the period identified in step 1(b).

Step 3: For each Candidate Facility, identify any Trading Intervals in the period identified in step 1(b) where:

- (a) the Facility, other than a Facility in the Balancing Portfolio, was directed to restrict its output under a Dispatch Instruction as provided in a schedule under clause 7.13.1(c); or
- (b) the Facility, if in the Balancing Portfolio, was instructed by System Management to deviate from its Dispatch Plan or change its commitment or output as provided in a schedule under clause 7.13.1C(d); or
- (c) was affected by a Consequential Outage as notified by System Management to AEMO under clause 7.13.1A.

Step 4: For each Candidate Facility and Trading Interval identified in step 3(a):

- (a) identify the actual quantity as determined in step 2 if:
 - i. System Management has made a revised estimate of the maximum quantity in accordance with clause 7.7.5A(c) and the Power System Operation Procedure; and
 - ii. the revised estimate of the maximum quantity is lower than the actual quantity as determined in step 2;
- (b) identify the actual quantity as determined in step 2 if:
 - i. step 4(a) does not apply; and
 - ii. the estimated maximum quantity determined by System Management under clause 7.13.1(eF) is lower than the actual quantity (as specified in a Meter Data Submission covering the Facility and the Trading Interval); and
- (c) if steps 4(a) and (b) do not apply:
 - i. identify the revised estimate of the maximum quantity determined by System Management in accordance with the Power System Operation Procedure specified in clause 7.7.5A; or
 - ii. if there is no revised estimate, identify the estimate determined by System Management under clause 7.13.1(eF).

- Step 5: For each Candidate Facility and Trading Interval identified in step 3(b) use:
- (a) the estimate recorded by System Management under clause 7.13.1C(e); and
 - (b) the quantity determined for the Facility and Trading Interval in step 2, to estimate the quantity of energy (in MWh) that would have been sent out by the Facility had it not complied with System Management's instruction to change its commitment or output during the Trading Interval.
- Step 6: For each Candidate Facility and Trading Interval identified in step 3(c) use:
- (a) the schedule of Consequential Outages determined by System Management under clause 7.13.1A;
 - (b) the quantity determined for the Facility and Trading Interval in step 2; and
 - (c) the information recorded by System Management under clause 7.13.1C(a), to estimate the quantity of energy (in MWh) that would have been sent out by the Facility had it not been affected by the notified Consequential Outage during the Trading Interval.
- Step 7: Determine for each Trading Interval in each 12 month period identified in step 1(b) the ~~Existing Facility Load for Scheduled Generation~~ Relevant Level (in MWh) as:
- $$\{ \text{Total_Generation} + \text{DSP_Reduction} + \text{Interruptible_Reduction} + \text{Involuntary_Reduction} \} - \text{CF_Generation}$$
- where
- Total_Generation is the total sent out generation of all Facilities, as determined from Meter Data Submissions;
 - DSP_Reduction is the total quantity by which all Demand Side Programmes reduced their consumption in response to a Dispatch Instruction, as determined under clause 6.17.6(c)(i);
 - Interruptible_Reduction is the total quantity by which all Interruptible Loads reduced their consumption in accordance with the terms of an Ancillary Service Contract, as recorded by System Management under clause 7.13.1C(c);
 - Involuntary_Reduction is the total quantity of energy not served due to involuntary load shedding (manual and automatic), as recorded by System Management under clause 7.13.1C(b); and
 - ~~CF_Generation is the total sent out generation of all Candidate Facilities, as determined in step 2 or estimated in steps 4, 5 or 6 as applicable.~~
- Step 8: Determine for each 12 month period identified in step 1(b) the 12 Trading Intervals, occurring on separate Trading Days, with the highest ~~Existing Facility Load for Scheduled Generation~~ Relevant Level.

- Step 9: Identify, for each 12 month period identified in step 1(c), the following:
- (a) the ~~Existing Facility Load for Scheduled Generation~~Relevant Level previously determined under this Appendix 9 for each Trading Interval in the 12 month period;
 - (b) subject to step 9A, the sent out generation (in MWh) for each Candidate Facility and for each Trading Interval in that 12 month period, ~~where that sent out generation was used to determine the CF_Generation (which is one of the variables used to determine the Existing Facility Load for Scheduled Generation in step 7) for that Trading Interval;~~ and
 - (c) the 12 Trading Intervals occurring on separate Trading Days that were previously determined to have the highest ~~Existing Facility Load for Scheduled Generation~~Relevant Level in the 12 month period.

Step 9A: For the purposes of step 9(b), if:

- (a) System Management has determined a revised estimate of the maximum quantity in accordance with the Power System Operation Procedure specified in clause 7.7.5A;
- (b) the revised estimate relates to a Candidate Facility and a Trading Interval in a 12 month period identified in step 1(c); and
- (c) AEMO determined the sent out generation for that Candidate Facility and for that Trading Interval in accordance with step 4 before it revised the estimate,

then AEMO must redetermine the sent out generation for that Candidate Facility and that Trading Interval in accordance with step 4.

Determining New Facility Load for Scheduled Sent Out Generation for New Candidate Facilities

Step 10: For each New Candidate Facility determine, for each Trading Interval in the period identified in step 1(a) that falls before 8:00AM on the Full Operation Date for the Facility, an estimate of the quantity of energy (in MWh) that would have been sent out by the Facility in the Trading Interval, if it had been in operation with the configuration proposed under clause 4.10.1(dA) in the relevant application for certification of Reserve Capacity. The estimates must reflect the estimates in the expert report provided for the Facility under clause 4.10.3, unless AEMO reasonably considers the estimates in the expert report to be inaccurate.

~~Step 11: For each New Candidate Facility determine, for each Trading Interval in the period identified in step 1(a), the New Facility Load for Scheduled Generation (in MWh) as:~~

- ~~(a) if the Trading Interval falls before 8:00 AM on the Full Operation Date for the Facility:~~

$$\text{EFLSG} + \text{Actual_CF_Generation} - \text{Estimated_CF_Generation}$$

where

~~EFLSG is the Existing Facility Load for Scheduled Generation for the Trading Interval, determined in step 7 or identified in step 9(a) as applicable;~~

~~Actual_CF_Generation is the sent out generation of the New Candidate Facility for the Trading Interval, as identified in step 9(b), determined in step 2 or estimated in steps 4, 5 or 6 as applicable; and~~

~~Estimated_CF_Generation is the quantity determined for the New Candidate Facility and the Trading Interval in step 10;~~

or

~~(b) the Existing Facility Load for Scheduled Generation for the Trading Interval, otherwise.~~

~~Step 12: For each New Candidate Facility determine, for each 12 month period identified in step 1(a), the 12 Trading Intervals, occurring on separate Trading Days, with the highest New Facility Load for Scheduled Generation.~~

Step 11: [Blank]

Step 12: [Blank]

Determining the Facility Average Performance Level

Step 13: For each Existing Candidate Facility, determine the 60 quantities comprising:

- (a) the MWh quantities determined in step 2 or estimated in steps 4, 5, 6 or 610 as applicable for each of the Trading Intervals determined in step 8, multiplied by 2 to convert to units of MW; and
- (b) the MWh quantities determined in step 9(b) for each of the Trading Intervals identified in step 9(c), multiplied by 2 to convert to units of MW.

~~Step 14: For each New Candidate Facility, determine the 60 quantities comprising:~~

- ~~(a) the MWh quantities identified in step 9(b), determined in step 2 or estimated in steps 4, 5 or 6 as applicable for each of the Trading Intervals identified in step 12 that fall after 8:00 AM on the Full Operation Date for the Facility, multiplied by 2 to convert to units of MW; and~~
- ~~(b) the MWh quantities determined in step 10 for each of the Trading Intervals identified in step 12 that fall before 8:00 AM on the Full Operation Date of the Facility, multiplied by 2 to convert to units of MW.~~

Step 14: [Blank]

Step 15: Determine the average performance level (in MW) for each Candidate Facility f (“Facility Average Performance Level”) as the mean of the 60 quantities determined for Facility f in step 13 ~~or step 14 as applicable.~~

Determine the Facility Adjustment Factor

Step 16: Determine the variance (in MW) for each Candidate Facility f (“Facility Variance”) as the variance of the MW quantities determined for Facility f in step 13 ~~or step 14 as applicable.~~

Step 17: Determine the facility adjustment factor (in MW) for each Candidate Facility f (“Facility Adjustment Factor”) in accordance with the following formula:

$$\text{Facility Adjustment Factor} = \min (G \times \text{Facility Variance (f)}, \text{Facility Average Performance Level (f)} / 3 + K \times \text{Facility Variance (f)})$$

Where

$$G = K + U / \text{Facility Average Performance Level (f)}$$

K is determined in accordance with the following table:

Reserve Capacity Cycle	Capacity Year	K value
2012	2014/15	0.001
2013	2015/16	0.002
2014	2016/17	0.003
2015 onwards	From 2017/18 onwards	To be determined by AEMO in accordance with clause 4.11.3B.

U is determined in accordance with the following table:

Reserve Capacity Cycle	Capacity Year	U
2012	2014/15	0.211
2013	2015/16	0.422
2014	2016/17	0.635
2015 onwards	From 2017/18 onwards	To be determined by AEMO in accordance with clause 4.11.3B.

Determining the Relevant Level for a Facility

Step 18: Determine the Relevant Level for each Candidate Facility f (in MW) in accordance with the following formula:

Relevant Level (f) = max(0, Facility Average Performance Level (f) - Facility Adjustment Factor (f))

Publication of information

Step 19: Publish on the Market Web Site by 1 June of Year 1 of the relevant Reserve Capacity Cycle on a provisional basis:

- (a) a forecast of the Trading Intervals that may be identified in step 8; and
- (b) a forecast of the ~~Existing Facility Load for Scheduled Generation~~ Relevant Level quantities that may be determined in step 7.

Step 20: Publish on the Market Web Site within three Business Days after the date specified in clause 4.1.11 (as modified or extended) for the relevant Reserve Capacity Cycle:

- (a) the Trading Intervals identified in step 8; and
- (b) the ~~Existing Facility Load for Scheduled Generation~~ Relevant Level quantities determined in step 7.

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

The proposed amendments to the Market Rules will improve facilitation of all Market Objectives, except for Market Objective (e). Market Objective (e) will not be negatively impacted.

Further detail for the assessment against each Market Objective is available in the sections below.

(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 approach of using Trading Intervals from true system peak conditions in place of the LSG intervals is likely to more accurately reflect the ability of Facilities assessed using the Relevant Level Methodology to provide capacity support to the system at times of the highest demand for capacity. The change will remove an unnecessary conservative bias against technologies that are assessed using the Relevant Level Methodology. This should result (based on estimates using data for 2012 – 2017) in about a 25% increase in capacity credits allocated to wind farms², corresponding to an efficiency for the Wholesale Electricity Market and its customers of about 20 MW. At the current capacity credit price of \$111,752 that represents a potential efficiency saving in excess of \$2.2 million per year by avoiding investment in additional capacity that can readily be served by existing intermittent generators.

As the proposed changes will more closely align the assessment intervals for allocating Capacity Credits with the intervals when that capacity is required we are also of the view that

² The analysis is based on data from the large wind farms on the system only (EDWFMAN_WF1, ALBANY_WF1, ALINTA_WWF, GRASMERE_WF1, MWF_MUMBIDA_WF1, INVESTEC_COLLGAR_WF1). Data on solar farms was not available in sufficient detail for our analysis.

system security and reliability should not suffer any negative consequences. Conservatism is retained in the assessment of Capacity Credit allocations via the Relevant Level Methodology by retaining the adjustment factors.

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

Collgar Wind Farm considers the proposed changes will remove an element of discrimination against intermittent technologies and thereby providing a more level playing field for generators using different technology options. This should encourage competition in generation, including from potential new investors. We do not consider it likely that the proposed changes will impact retail competition in any form.

(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;

As already outlined, the proposed amendments will remove discrimination that currently exist within the Market Rules in relation to the application of the Relevant Level Methodology and provide a better and more direct link between intermittent generators' ability to provide capacity during times of the greatest need (system peak events). The proposed amendments will not impact conventional, dispatchable technologies as these will continue to be assessed based on their ability to provide capacity in 41C degree conditions.

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

The long-term cost of supplying electricity to customers will reduce with the proposed amendments as a higher, and more accurate level of capacity credits is likely to be allocated to intermittent generators. This will immediately reduce the need for additional investment in generation as the current fleet of intermittent generators will be able to serve a higher proportion of the load during system peak events compared to the level reflected in their current Capacity Credit allocations.

Having in place a more accurate methodology for assessing the ability of intermittent generators to contribute to system peak events is also likely to lead to more efficient investment decisions in new generation projects. Ensuring long-term investments are made with as accurate information as possible is likely to further drive competition to the long-term benefit of customers in the South West Interconnected System.

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

Collgar Wind Farm considers there will be no discernible impact on facilitating achievement of Market Objective (e).

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

Collgar Wind Farm will not incur any costs of its own to implement this change. Given the relatively minimal change required it is believed that any system costs for AEMO should also be minimal.

Agenda Item 8(b): Roles in the Market

Meeting 2018_03_14

1. The Issue

As part of its MAC Market Rules Issues list, the Market Advisory Committee (**MAC**) has requested that a review be undertaken of the roles and responsibilities of the Market Participants and other agencies under the Wholesale Electricity Market Rules (**Market Rules**).

RCP Support will facilitate a discussion of the roles and responsibilities under the Market Rules, and the MAC can then determine how it would like to proceed if any necessary changes or gaps are identified. Examples include AEMO's responsibilities to set the confidentiality status of documents and market information, updating the market surveillance data catalogue, etc.

2. Discussion

MAC members are asked to consider the following questions in the context of the Market Rules:

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

MAC participants will be asked to consider the above questions at the MAC meeting on 14 March 2018; and will then be asked to provide specific examples to RCP Support by email, citing specific clause references where possible.