

Minutes

Meeting Title:	Market Advisory Committee (MAC)
Date:	27 April 2021
Time:	9:30 AM – 11:10 AM
Location:	Online via Microsoft Teams

Attendees	Class	Comment
Stephen Eliot	Chair	
Matthew Martin	Small-Use Consumer Representative	
Mark Katsikandarakis	Australian Energy Market Operator (AEMO)	Proxy for Martin Maticka
Dean Sharafi	AEMO	
Sara O'Connor	Economic Regulation Authority (ERA) Observer	
Dora Guzeleva	Minister's Appointee – Observer	Proxy for Kate Ryan from 9:55 AM
Jo-Anne Chan	Synergy	
Jacinda Papps	Market Generator	
Wendy Ng	Market Generator	
Daniel Kurz	Market Generator	
Tom Froad	Market Generator	From 10:00 AM
Patrick Peake	Market Customer	
Geoff Gaston	Market Customer	
Timothy Edwards	Market Customer	
Peter Huxtable	Contestable Customer	
Zahra Jabiri	Network Operator	To 11:00 AM

Also in Attendance	From	Comment
Richard Cheng	ERA	Presenter
Jai Thomas	Energy Policy WA (EPWA)	Presenter
Jenny Laidlaw	RCP Support	Minutes
Adnan Hayat	RCP Support	Observer

Also in Attendance	From	Comment
Laura Koziol	RCP Support	Observer
Sandra Ng Wing Lit	RCP Support	Observer
Natalie Robins	RCP Support	Observer
Vijeshni Ashna Nand	RCP Support	Observer
Matt Shahnazari	ERA	Observer
Erdem Oz	ERA	Observer
Sandy Ng	AEMO	Observer
Grace Liu	AEMO	Observer
Ian Porter	Sustainable Energy Now (SEN)	Observer
Noel Schubert	Independent	Observer
Erin Stone	Point Global	Observer
Oscar Carlberg	Alinta Energy	Observer
Dimitri Lorenzo	Bluewaters Power	Observer
Paul Arias	Bluewaters Power	Observer, From 9:50 AM to 10:20 AM

Apologies	From	Comment
Kate Ryan	Minister's Appointee – Observer	
Martin Maticka	AEMO	

Item	Subject	Action
1	Welcome The Chair opened the meeting at 9:30 AM and welcomed members and observers to the 27 April 2021 MAC meeting.	
2	Meeting Apologies/Attendance The Chair noted the attendance as listed above.	
3	Minutes of Meeting 2021_02_02 Draft minutes of the MAC meeting held on 2 February 2021 were circulated on 2 March 2021. The MAC accepted the minutes as a true and accurate record of the meeting.	

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	Action: RCP Support to publish the minutes of the 2 February 2021 MAC meeting on the Rule Change Panel's (Panel) website as final.	RCP Support
4	Action Items	
	<p>The closed action items were taken as read.</p> <p>The Chair noted that action item 3/2021 would be discussed under agenda item 5.</p>	
5	MAC Market Rules Issues List (Issues List)	
	<p>The Chair noted that RCP Support had not yet completed its intended review of the Issues List due to competing priorities. RCP Support would try to complete the review before the next MAC meeting, but otherwise the review would be carried out by the new MAC following the transfer of responsibilities for rule administration to the Coordinator.</p>	
	<p>The Chair noted that, at the last MAC meeting, Mr Ian Porter raised an issue about the consideration of emissions costs. After reviewing the minutes of that meeting, the Chair was uncertain whether Mr Porter's issue related to:</p>	
	<ul style="list-style-type: none"> • whether the WEM Rules should actively promote renewable energy (which the Chair considered was a matter beyond the scope of the MAC that should be raised directly with EPWA); or • how emissions costs should be considered within the existing rule change process. 	
	<p>Mr Porter agreed that the purpose of the rule change process was not to actively promote particular technologies in a market situation. Mr Porter clarified that his concern related to the current lack of detailed information about emission levels in the Wholesale Electricity Market (WEM).</p>	
	<p>Mr Porter noted that EPWA had included many very detailed assumptions in its modelling for the first Whole of System Plan (WOSP). Given recent international developments, the introduction of a carbon pricing mechanism in Australia seemed more likely, which could lead to stranded assets in the WEM. Mr Porter suggested that a knowledge of WEM emissions on a daily and real-time basis would be very useful to enable the upcoming transition, to ensure the lowest price of power in the State considering the possible impact of stranded assets.</p>	
	<p>Mr Porter suggested that methods to measure the exact emissions of a Facility from its output level could be established, and then applied to the actual output of each Facility.</p>	

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	<p>Mr Dean Sharafi considered that the Panel, or in future the Coordinator, would need a clear Government direction to actively promote emissions reduction through their rule change decisions.</p> <p>Mr Porter agreed to the Chair's request that he prepare a description of the issue for inclusion in the Issues List.</p> <p>Mr Patrick Peake did not consider that the MAC should consider the issue without a direction from Government. Mr Peake questioned how the information that was proposed to be collected would actually affect future rule change decisions. The Chair clarified that the intent of his request was to allow the MAC to understand the issue and advise whether it needed to be addressed by the Panel/Coordinator going forward.</p> <p>Mr Porter reiterated his view that emissions assumptions would be an important input to future WOSPs. The Chair noted that the MAC's role was to advise the Panel/Coordinator on rule changes rather than WOSP assumptions.</p> <p>Mr Noel Schubert considered that the issue was sufficiently important to include it on the Issues List to ensure it was considered further.</p> <p>Mr Jai Thomas supported the MAC considering the issue and potentially including it on the Issues List. However, Mr Thomas considered that this was a "bottom up" approach, and the treatment of emissions was really a high-level issue that involved the Wholesale Market Objectives and would therefore require some direction from Government. Mr Thomas noted that the Government had directed EPWA to model emissions in the next WOSP as an outworking of the State's climate policy; and expected that over time further clarity would emerge about the Government's intentions regarding emissions and the Wholesale Market Objectives.</p> <p>Mr Daniel Kurz asked whether Mr Porter's issue was that there was no real-time visibility of the carbon intensity of the WEM, which impacted on the ability to make assumptions on costs. Mr Kurz noted that Bluewaters Power had provided EPWA with generator carbon intensity details for use in the WOSP modelling, and that carbon intensity, and therefore an appropriation of costs, would have been included in that modelling.</p> <p>Mr Kurz considered that the provision of real-time visibility was something that could be considered. However, Mr Kurz agreed with the Chair, Mr Sharafi and Mr Peake that there was a limit on the scope of what the MAC could consider in the absence of a Government direction.</p>	

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	Attendees did not propose any other changes to the Issues List.	
	Action: SEN to provide a description of its proposed emissions-related amendment to the WEM Rules for discussion by the MAC and potential inclusion on the Issues List.	SEN

6 Update on WA Government Reforms

Mr Thomas provided the following updates:

- The final meeting of the Energy Transformation Taskforce (**Taskforce**) was scheduled for 14 May 2021.
- The Energy Transformation Information Unit (**ETIU**) published a consultation paper “Proposals for changes to Market Power Mitigation Mechanisms” on 31 March 2021 and discussed the paper at the Transformation Design and Operation Working Group (**TDOWG**) meeting on 19 April 2021. The submission period closed on 28 April 2021. ETIU’s intention was for a policy position on that package of measures to be agreed at the 14 May 2021 Taskforce meeting.
- ETIU expected to publish an information paper that summarised the Taskforce’s decisions on the power system security and reliability (**PSSR**) framework by 28 April 2021.
- A consultation paper on further changes to the Electricity Networks Access Code (**Access Code**) was due to be published on 28 April 2021 for a four-week consultation period. The changes mainly related to the instruments required within the Access Code to give effect to constrained network access. ETIU intended to schedule an industry forum to facilitate consultation on the changes.
- ETIU planned to hold a TDOWG meeting on Non-Co-optimised Essential System Services (**NCESS**) in early May 2021.
- ETIU also intended to hold an industry forum in late May 2021 to summarise the Taskforce’s work program over the last two years and outline the work program to continue after the expiry of the Taskforce on 19 May 2021. EPWA intends for the reform program to continue beyond the life of the Taskforce. Future work will include development of Amending Rules to implement the Taskforce’s decisions on market power mitigation, the PSSR framework and NCESS; and implementation of action items from the Distributed Energy Resources (**DER**) roadmap. Work on the second

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	<p>WOSP was also expected to commence in the next few months.</p>	
	<ul style="list-style-type: none"> ETIU intended to publish a 12-month progress report on the DER roadmap within the next few weeks. 	
7	Update on AEMO Procedure Change Working Group	
	<p>Mr Mark Katsikandarakis noted that AEMO had been pursuing Procedure Change Proposal AEPC_2020_01 to revise the Balancing Merit Order tie-break methodology through changes to two WEM Procedures (Balancing Facility Requirements and Balancing Market Forecast).</p>	
	<p>The issue was impacted by Pre-Rule Change Proposal RC_2020_04 (Balancing Facility Loss Factor Adjustment) that the Rule Change Panel had agreed to develop. After reflection on this Pre-Rule Change Proposal, AEMO had decided to reject AEPC_2020_01 and to manage any security issues during periods of low demand via dispatch.</p>	
	<p>The Procedure Change Report rejecting AEPC_2020_01 was due to be published on 30 April 2021.</p>	
8(a)	Overview of Rule Change Proposals	
	<p>The MAC noted the overview of Rule Change Proposals.</p>	
	<p>The Chair provided the following updates:</p>	
	<ul style="list-style-type: none"> The Amending Rules for Rule Change Proposal RC_2014_03 (Administrative Improvements to the Outage Process) are due to commence on 29 June 2021. Rule Change Proposals RC_2014_05 (Reduced Frequency of the Review of the Energy Price Limits and the Maximum Reserve Capacity Price), RC_2019_01 (The Relevant Demand calculation) and RC_2018_03 (Capacity Credit Allocation Methodology for Intermittent Generators) will be transferred to the Coordinator on 1 July 2021. The deadlines for the Draft Rule Change Reports for these Rule Change Proposals (currently 30 June 2021) will be extended accordingly. The Draft Rule Change Report for RC_2019_03 (Method used for the assignment of Certified Reserve Capacity to Intermittent Generators) was published on 20 April 2021 and the Relevant Level Method (RLM) model used by the Panel to assess the Rule Change Proposal was published on 23 April 2021. The model contained all the data used for the analysis, except that: 	

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	<ul style="list-style-type: none"> ○ historical facility output values that were derived from Meter Data Submissions were replaced with the corresponding SCADA values, because some parties could not agree to the publication of the meter data; and ○ the estimated Forced Outage rates for two Scheduled Generators with no outage history were removed and replaced by zero. 	
	<p>These changes meant that stakeholders would not be able to fully duplicate the Panel’s results, but the Chair considered that stakeholders may still find the model useful as a means to understand the report and the proposed RLM.</p>	
	<p>The Chair invited stakeholders to contact RCP Support if they had any questions about the model, but noted that RCP Support could not provide technical support on matters such as the operation of Python.</p>	
	<ul style="list-style-type: none"> ● The second submission period for RC_2019_03 closed on 19 May 2021 and the deadline for the Final Rule Change Report was 17 June 2021, which was only nine Business Days before the Panel was abolished. Therefore, as indicated in the Draft Rule Change Report, the Panel did not intend to extend the second submission period. Any extensions to the second submission period would likely lead to the need to transfer responsibility for RC_2019_03 to the Coordinator, which would further lengthen the timeline to finalise the Rule Change Proposal and make it virtually impossible for AEMO to implement the new method in time for the 2021 Reserve Capacity Cycle. 	
	<p>The Chair noted that the Panel had asked him to convene a MAC workshop to discuss RC_2019_03 as close as possible to the midpoint of the second submission period (around 5 May 2021). The Panel had also asked him to offer for RCP Support to consult with stakeholders on RC_2019_03 on a one-on-one basis. The intent for the workshops was primarily to allow stakeholders to raise questions, or make comments, as early as possible for the Panel’s consideration. The workshops were also intended to advise stakeholders about the key aspects of the Panel’s decision and the rationale for the decision, so that stakeholders can make informed submissions.</p>	
	<p>RCP Support sought stakeholder feedback on the consultation process, inviting stakeholders to request one-on-one meetings and asking whether stakeholders would prefer a single workshop on 7 May 2021, or to split the workshops and discuss the decision on 7 May 2021 and the rule drafting on</p>	

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	<p data-bbox="320 271 1155 371">11 May 2021. The workshops were delayed from the original target date of 5 May 2021 to avoid conflict with the Energy in WA Conference.</p> <p data-bbox="320 400 1155 651">RCP Support had not yet received any requests for a one-on-one consultation. AEMO indicated a preference for a single session but indicated it would attend both sessions if that approach was taken. RCP Support received one response from a Market Customer preferring a single session, and responses from three Market Generators and Western Power preferring two sessions, along with one response from a consultant.</p> <p data-bbox="320 680 1155 931">The three Market Generators also asked to defer the workshops to the following week given the importance of the issue and the Energy in WA Conference. However, given the extremely tight timeline to finalise RC_2019_03, RCP Support was very reluctant to defer the workshops, as this would limit the Panel's ability to consider the early feedback from the workshops and could put the timeline further at risk.</p> <p data-bbox="320 960 1155 1128">The Chair asked whether, given the timing constraints on the Rule Change Proposal and the limited responses received, MAC members preferred to continue with the workshops or for RCP Support to cancel the workshops and hold one-on-one sessions with the people who had responded.</p> <p data-bbox="320 1158 1155 1520">Mr Tom Frod and Mr Timothy Edwards were in favour of holding the workshops, while Mr Geoff Gaston indicated that he would be happy with one-on-one meetings. Mrs Jacinda Papps advised that Alinta was probably likely to ask for a one-one-one meeting as well as wanting to attend the workshops, but had not yet made the request as it was still reviewing the Draft Rule Change Report. Alinta was keen for the workshops to be delayed until 11 May 2021, because it would struggle to be ready for a workshop on 7 May 2021 due to resourcing issues and the complexity of the report.</p> <p data-bbox="320 1550 1155 1800">The Chair advised that based on this feedback RCP Support would continue with the workshops, and asked for views on holding the first workshop on the afternoon of 7 May 2021 (the morning being unsuitable because of conflict with a scheduled demonstration of the WOSP Dashboard). Mr Frod and Mr Edwards both indicated that they could attend a workshop at that time.</p> <p data-bbox="320 1830 1155 1957">The Chair advised that RCP Support would consider the feedback provided by the MAC before confirming the timing of the workshops. The Chair also requested that attendees send him any topics of discussion or specific questions that they</p>	

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	would like to have covered ahead of time, to assist with RCP Support's preparation for the workshops.	
9	<p>Part 2 discussion on amending market rules intended to incentivise the availability of generators</p> <p>Mr Richard Cheng gave a presentation to continue the discussion from the 2 February 2021 MAC meeting on the ERA's findings and recommendations from its "2020 review of two market rules intended to incentivise the availability of generators" (ERA review) final report (final report). A copy of the ERA's presentation is available in the meeting papers.</p> <p>The following points were discussed:</p> <ul style="list-style-type: none"> In response to a question from Mr Sharafi, Mr Cheng confirmed that the WEM Rules did not specify a deadline for the ERA to submit a Rule Change Proposal to implement the final report's recommendations, and that the ERA had not yet set a firm submission date. Mr Oscar Carlberg asked what would trigger progression of the ERA's Rule Change Proposal, e.g. whether this would be driven by the outcomes of EPWA's proposed wholesale Reserve Capacity Mechanism (RCM) review (EPWA review) and whether the Rule Change Proposal would remain on the ERA's work plan. <p>Mr Cheng replied that the ERA hoped that its findings would be used as input to the EPWA review, but did not yet know when the EPWA review would occur or what it would incorporate. Mr Cheng also noted the current WEM Rules gave the ERA a limited scope in terms of what it could propose in the Rule Change Proposal. However, the ERA would have expanded Rule Change Proposal powers from 1 July 2021, which while not a trigger in itself, would allow the ERA to look at more issues in its Rule Change Proposal.</p> <p>Mr Cheng noted that the ERA was required to consult with the MAC under clause 2.5.1B before undertaking any further work to develop the Rule Change Proposal, so MAC members would be advised well in advance of the ERA's decision to progress this work.</p> <ul style="list-style-type: none"> Mr Carlberg reiterated that Alinta supported consideration of the proposed changes to the assignment of Certified Reserve Capacity (CRC) as part of a broader review of the RCM, to ensure those changes are not considered in isolation. Mr Cheng agreed that the changes needed to be considered as part of a holistic review of the RCM. Mr Cheng also noted that, given the changes that are 	

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	<p>happening to the entire market, the ERA did not want to propose a rule change that would not work under the new market arrangements.</p>	
	<ul style="list-style-type: none"> Mr Peake suggested that when considering changes to the RCM, it was important to go back to the fundamental purpose of the RCM, which was to make sure enough capacity was brought on stream. Mr Peake considered there was a real danger of future capacity shortfalls because the current RCM was unlikely to encourage the entry of new capacity. While Perth Energy owned a small gas fired power station that would benefit from capacity shortages, as a retailer it was concerned about the adverse impacts on its customers. 	
	<p>Mr Peake considered that bringing in changes because they appeared to be more academically sound was the wrong approach and would discourage future investment. Without a full review of the RCM, followed by an extended period of stability, the RCM would continue to discourage the entry of new capacity.</p>	
	<p>Mr Carlberg and Mr Gaston agreed with Mr Peake's comments. Mr Cheng agreed with Mr Peake that a holistic review of the RCM was necessary to ensure that it was achieving its purpose.</p>	
	<ul style="list-style-type: none"> Mr Sharafi noted that AEMO agreed with the rationale for the ERA's proposed changes and considered that the EPWA review should focus on the Planning Criterion. Mr Peake expressed a view that, under the current WEM Rules, over-acquisition of capacity reduced customers' costs because the Reserve Capacity Price falls very quickly if there is excess capacity. For this reason, Mr Peake considered that the only risk to customers was having too little capacity available. 	
	<p>Mr Cheng agreed with Mr Peake about the effect of excess capacity on the Reserve Capacity Price, while noting that it would still be preferable to avoid over-procuring capacity. Mr Cheng noted that the ERA had found that the WEM was, in general, over-forecasting and therefore under-procuring the level of reliable capacity that was needed to meet the required reliability standard.</p>	
	<ul style="list-style-type: none"> Ms Wendy Ng noted that the RCM was originally designed to cater for the summer period, e.g. Individual Reserve Capacity Requirements are based on consumption during the summer period. Ms Ng understood system stress periods could occur throughout the year, and suggested 	

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	<p>that it may be appropriate for the EPWA review to consider that issue. However, as it currently stood, the RCM was unfortunately designed around summer.</p>	
	<p>Mr Cheng, Mr Carlberg and Mr Kurz all agreed with Ms Ng's comment.</p>	
	<ul style="list-style-type: none"> • Mr Carlberg noted that Alinta disagreed with the EFORd proposal. Alinta considered that while the method assumed past outages can predict future availability, EFORd would not accurately predict generators' availability for the following reasons: <ul style="list-style-type: none"> ○ EFORd was a lagging indicator. After experiencing a Forced Outage, a generator has at least two years to rectify the issue after it is accredited. The EFORd measure would not reflect any such rectifications. ○ A higher EFORd is likely to reflect a generator that runs more often compared to generator with a lower EFORd, rather than a generator with lower availability. Conversely, a lower EFORd is likely to indicate a generator that does not run often rather than a generator that is more available. ○ Forced Outages can happen for a variety of reasons that are unlikely to re-occur. They can also be difficult to delineate from outages caused by external constraints. As a result, the EFORd may penalise generators for many factors outside their control. ○ New generators will likely be assigned Forced Outage rates arbitrarily, based on their Original Equipment Manufacturer's predictions which are not standardised. 	
	<p>Alinta also considered that the proposal would not improve incentives for baseload and mid-merit generators to be available, despite disproportionately penalising them compared to other generators. These generators already had greater incentive to be available for revenue and to avoid refunds.</p>	
	<p>Mr Peake and Ms Ng agreed with Mr Carlberg's comments.</p>	
	<ul style="list-style-type: none"> • Mr Kurz agreed with Mr Carlberg's comments, and also noted that the way generators were currently being run and responding to operational limits within the network was exposing them to additional operational risk. Mr Kurz suggested that the balance of risk versus reward in the market was continually being distorted by the imposition of additional risks on generators. 	
	<p>Ms Jo-Anne Chan agreed with Mr Kurz's comments.</p>	

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•	<p>The Chair noted that the Market Generators in the MAC were in agreement about the ERA’s recommendations. Mr Peake noted that he was a Market Customer representative, and was concerned that customers would incur the costs of extra generation or loss of supply. Mr Edwards noted that he was also a Market Customer representative.</p>	
•	<p>Ms Jenny Laidlaw asked whether the ERA had undertaken any analysis to assess how accurately AEMO would be able to estimate the future Forced Outage rates of Scheduled Generators, since this would affect the benefits of the change.</p>	
	<p>Mr Cheng replied that the ERA had referenced international practice that uses historical EFORd as a proxy to forecast outages into the future. Mr Cheng also stated that the ERA had not performed its own work yet to apply EFORd to the WEM. This was one of the matters that the ERA intended to consider as part of what would be the cost-benefit analysis part of developing the Rule Change Proposal.</p>	
	<p>Dr Matt Shahnazari added that the issue was not really about improved accuracy, but that the current WEM Procedure: Facility Outages was measuring a factor that is irrelevant to the capacity value of Scheduled Generators. It was important to first have a good measure of the probability of future outages. It was also important to ensure that AEMO used the best available information to minimise forecast error, recognising that the error could never be completely eliminated.</p>	
	<p>Ms Laidlaw agreed that the current Forced Outage rate calculation in the WEM Procedure could be improved, but did not consider that this answered her original question about how accurate the improved calculation was as a predictor. Ms Laidlaw considered that there was a risk of change for the sake of change unless it brought some improvement in forecasting accuracy.</p>	
•	<p>Mr Porter considered that generators provided Essential System Services (ESS) for free under the current WEM Rules, and that there needed to be consideration for ESS to be more quickly brought into the commercial equations for payment of same. However, for the future, the age, generator type and current operational duty (i.e. “ramping”) of many of the generators was inappropriate for current market needs.</p>	
•	<p>Mr Peake considered that it would be very hard to estimate EFORd at peak times because the WEM had experienced</p>	

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	<p>very few 41 degree events. Mr Cheng replied that system stress events can occur throughout the Capacity Year and not only when the temperature reached 41 degrees.</p>	
	<ul style="list-style-type: none"> Mr Carlberg asked whether the approach would be to predict when system stress periods will occur and the conditions that will exist in those periods, and then predict generators' output in those scenarios. Mr Carlberg considered that such an approach would be prone to forecast error. 	
	<p>Mr Cheng replied that forecast error would still be factored into the Planning Criterion calculation. Historical EFORD would be used as a proxy to figure out what the future likelihood is of a generator being on Forced Outage when it is needed, as Forced Outages are not known in advance. This proxy would be used in the absence of AEMO being provided other information such as corrective action like extra/additional maintenance that could change the likelihood of the generator being available during system stress periods.</p>	
	<p>Dr Shahnazari considered that the important questions relating to forecasting the capacity value of a Scheduled Generator were, what was the best method of forecasting the capacity value, and who was best placed to manage the inevitable risk of forecasting error and its associated costs. Dr Shahnazari noted that under the current WEM Rules, the costs associated with this forecasting error were passed to consumers.</p>	
	<p>Mr Carlberg reiterated his concerns that the results of using EFORD would be arbitrary, with some generators being more adversely impacted than others.</p>	
	<p>Dr Shahnazari noted that EFORD was not an arbitrary calculation developed internally by the ERA. The ERA had looked at the principles of design of capacity markets around the world, and had identified that the WEM Procedure Forced Outage rate calculation was producing numbers that were totally irrelevant. The EFORD calculation was precisely defined in international standards.</p>	
	<ul style="list-style-type: none"> Ms Laidlaw asked how the EFORD calculation will determine when a generator was required. Mr Cheng replied that this was something that the ERA would explore in more detail with AEMO and other parties when it developed the Rule Change Proposal. 	
	<ul style="list-style-type: none"> Mr Edwards questioned whether it would be more prudent to increase the testing periods for generators to resolve the 	

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	<p>ERA's concerns about their availability. Mr Cheng and Dr Shahnazari agreed that increased testing would help to assess the future capacity value of generators that ran very infrequently. However, Dr Shahnazari noted that there was a cost associated with increased testing, so a cost-benefit analysis would be needed to determine a reasonable frequency for testing generators.</p>	
	<ul style="list-style-type: none"> • Mr Sharafi agreed with the ERA that Forced Outage rates should be based on the periods when a generator was required; otherwise the rarely run generators might not be available when needed. • Mr Edwards suggested that any statistic would require more than 20 test samples to be suitable, both for generators and Demand Side Programmes. Mr Cheng replied that one of the reasons why the ERA proposed to use a longer time period for the EFORd calculation (five years) was to increase the sample size. • Mr Peake noted that often generators were running not because their capacity was actually needed but because they were the cheapest units available. If you wanted to consider periods when a generator was needed you would need to consider the peak stress Trading Intervals. 	
	<p>Dr Shahnazari acknowledged that some generators ran during periods of low system stress and were called into service quite frequently. However, the EFORd measure still provided a good proxy for the performance of the generator during high system stress periods. It was not difficult to calculate EFORd for generators that were called to run very frequently. It was more difficult for generators that hardly ever ran but had failed when tested, due to the small sample size. However, increasing test frequency and increasing the calculation period were two possible solutions to that problem.</p>	
	<p>Mr Peake considered that the current approach, where a general Forced Outage rate was incorporated into the reserve margin, seemed a better approach, given the small available sample size for peaking generators.</p>	
	<p>Dr Shahnazari replied that including an allowance for expected Forced Outages in the reserve margin created a free-riding problem. Under the ERA's proposal, generators that perform well in terms of availability would benefit, while generators that perform badly would probably lose some of their Capacity Credits. Dr Shahnazari considered it was important to reward generators that perform well and penalise those that do not; and that the reserve margin</p>	

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	<p>should not be used to account for expected outages, and this was not the practice in other capacity markets around the world.</p> <ul style="list-style-type: none"> <li data-bbox="320 398 1094 499">• Mr Porter suggested there would be a much greater distribution of generator assets and much more reliable generation in future, reducing the need for the RCM. <p data-bbox="375 526 1161 739">Mr Porter suggested that consideration be made in the WEM Rules for futurism, so that rather than trying to prop up old technologies that are unfit for purpose, the WEM Rules should incentivise new technology to enter the market and replace the old fossil fuel technology that was far less reliable.</p> <p data-bbox="375 766 1153 1016">Ms Ng noted that the current process for assigning Certified Reserve Capacity to Scheduled Generators accounted for the de-ratings that might occur at 41 degrees Celsius, so it was not like the Scheduled Generators were not performing to their expected levels. Ms Ng noted that the WEM Rules required technology neutrality and did not consider that discussion of futurism or old technology was appropriate.</p>	

10 General Business

The Chair noted that only one more MAC meeting was scheduled before the transfer of rule-making functions to the Coordinator. The Chair suggested that it might be worthwhile to discuss how the upcoming transition would work in that meeting.

Mr Kurz expressed support for the Chair's suggestion.

The meeting closed at 11:10 AM