

Meeting Agenda

Meeting Title: Market Advisory Committee

Date: Wednesday 13 June 2018

Time: 12:30 PM – 3:30 PM

Location: Training Room No. 2, Albert Facey House

469 Wellington Street, Perth

Item	Item	Responsibility	Duration
1	Welcome	Chair	5 min
2	Meeting Apologies/Attendance	Chair	5 min
3	Minutes from Previous Meeting	Chair	5 min
4	Actions Items	Chair	10 min
5	Update on AEMO's Market Procedures	AEMO	5 min
6	(a) Update on the Network and Market Reform Program (late paper)	PUO	10 min
	(b) Change to Clause 1.20 (AEMO Funding) (late paper)	PUO	20 min
	(c) Terms of Reference for MAC Working Groups (late paper)	PUO	10 min
	(d) Deferral of the 2018 Reserve Capacity Cycle (no paper)	PUO	20 min
7	Update on the Review of the Relevant Level Methodology (no paper)	ERA	10 min
8	(a) Overview of Rule Change Proposals	RCP Support	10 min
	(b) Development of ERA Pre-Rule Change Proposals	ERA	15 min
9	Rule Change Prioritisation	RCP Support / Perth Energy	20 min



10	(a) Update on the MAC Issues List	RCP Support	10 min
	(b) Treatment of Storage in the Wholesale Electricity Market (no paper)	RCP Support	10 min
	(c) Roles in the Market	RCP Support	10 min
11	General Business	Chair	5 min

Next Meeting: 11 July 2018

Please note, this meeting will be recorded.





Minutes

Meeting Title:	Market Advisory Committee (MAC)
Date: 9 May 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	Australian Energy Market Operator (AEMO)	
Dean Sharafi	System Management	
Sara O'Connor	Economic Regulation Authority (ERA) Observer	
Will Bargmann	Synergy	
Margaret Pyrchla	Network Operator	
Jacinda Papps	Market Generators	From 12:55 PM
Shane Cremin	Market Generators	
Andrew Stevens	Market Generators	
Wendy Ng	Market Generators	
Patrick Peake	Market Customers	
Geoff Gaston	Market Customers	
Steve Gould	Market Customers	
Peter Huxtable	Contestable Customers	

Also in attendance	From	Comment
Jenny Laidlaw	RCP Support	Presenter, Minutes
Richard Cheng	RCP Support	Presenter
Aditi Varma	Public Utilities Office (PUO)	Presenter, from 12:45 PM
Kate Ryan	PUO	Presenter, to 2:25 PM

Stuart Featham	AEMO	Presenter, to 3:45 PM
Ashwin Raj	PUO	Observer, 1:05 – 2:25 PM
Steven Kruit	PUO	Observer, to 2:25 PM
Thomas Coates	PUO	Observer, from 1:00 PM
Dean Frost	Western Power	Observer
Douglas Thomson	Western Power	Observer, to 2:25 PM
Daniel Kurz	Bluewaters Power	Observer, from 12:45 PM
Ignatius Chin	Energy Market Consulting associates	Observer, to 2:25 PM
Greg Ruthven	AEMO	Observer
Clayton James	AEMO	Observer
Matthew Bowen	Jackson McDonald	Observer
Ben Williams	Synergy	Observer
Noel Schubert		Observer
Julian Fairhall	ERA	Observer, to 2:20 PM
Natalie Robins	ERA	Observer, to 2:20 PM
Laura Koziol	RCP Support	Observer
Sandra Ng Wing Lit	RCP Support	Observer

1 Welcome

The Chair opened the meeting at 12:35 PM and welcomed members and observers to the 9 May 2018 MAC meeting.

2 Meeting Apologies/Attendance

The Chair noted the attendance as listed above.

3 Minutes from Previous Meeting

Draft minutes of the MAC meeting held on 14 March 2018 were circulated on 4 April 2018. The minutes were accepted as a true record of the meeting.

Item	Subject	Action
	Action: RCP Support to publish the minutes of the 14 March 2018 MAC meeting on the Rule Change Panel's (Panel's) website as final.	RCP Support

4 Actions Arising

The closed action items were taken as read.

Action 19/2017: Mr Matthew Martin noted that the PUO was in the process of engaging external consultants to assist with the Minister's Wholesale Electricity Market (WEM) reform program (WEM reform program), and intended to use their services to address this action item. Mr Martin suggested that the action item be kept open, but updated to show it will be progressed as part of the WEM reform program rather than PUO 'business-as-usual'.

Action 31/2017: Ms Jenny Laidlaw noted that AEMO had provided an update to RCP Support on this action item. AEMO considered two options for ensuring that the late logging of a Forced Outage by a Generator would result in the appropriate recovery of any unwarranted constrained off compensation:

- 1) allow for the recalculation of Theoretical Energy Schedule values for settlement adjustments; or
- 2) allow AEMO to import a file into the settlement adjustment process to nullify the constraint payment.

AEMO preferred the first option as the second option created operational and system risks. AEMO estimated the first option would require about 1-2 months for a developer and 6-8 months of testing, plus some overheads.

Ms Laidlaw noted that she had discussed a potentially cheaper third option with the ERA's Compliance team. Under this option, if a Market Participant did not comply with its Dispatch Instruction, was not noncompliant under clause 7.10.1 of the Market Rules because it had logged a Forced Outage, but had logged that Forced Outage late, then the ERA would be able to include the relevant Facility and Trading Intervals in the file provided to AEMO under clause 7.10.8 of the Market Rules. This would cause the Out of Merit quantities for the Facility to be set to zero for the relevant Trading Intervals and prevent the payment of any constrained off compensation. Ms Laidlaw expected that this option would be recommended as it would not require any changes to AEMO's market systems.

Action 33/2017: On hold until early 2019.

Action 2/2018: Ms Laidlaw noted AEMO's advice that the National Electricity Market (**NEM**) used a 'maximum capacity' value, which represented the highest possible output from the generator. Market Generators could include this level of capacity in their Dispatch Offers,

and were responsible for ensuring that their Dispatch Offer quantities reflected their capabilities at any time. There was general agreement that the action item could now be closed.

Action 5/2018: To be addressed under agenda item 4(a).

Action 6/2018: The Chair advised that the ERA intended to provide an update on this action item at the 13 June 2018 MAC meeting.

4(a) Presentation – SWIS Operational Issues Resulting from New Connections (Action Item 5/2018)

Mr Dean Sharafi gave a presentation on some potential operational/market issues resulting from the connection of two new Intermittent Generators in the North Country. A copy of the presentation is available in the meeting papers on the Panel's website.

The following points were discussed.

- In response to a question from Mr Ben Williams, Mr Sharafi clarified that the dynamic Spinning Reserve requirement was currently set to 70 percent of the current output of the Generator with the highest output level at the time. Mr Sharafi noted that following the connection of the new Generators the largest contingency could exceed 70 percent of any single Generator's output under certain conditions. The largest single contingency could exceed 700 MW under certain network outage conditions.
- Mr Shane Cremin suggested that scenarios where the largest single contingency exceeded the output of a single Generator already existed in the WEM, citing a 440 MW contingency for Bluewaters 1 and 2 as an example. Ms Laidlaw suggested that, while such contingencies already occurred in the WEM, they were very rare.
- In response to a question from Mr Andrew Stevens, Mr Sharafi confirmed that the problem was not caused by the intermittency of the new Generators, and would also apply to new Scheduled Generators connected at the same locations.
- Mr Williams asked whether the scenarios described by Mr Sharafi would occur under 'system normal' network conditions. Mr Sharafi replied that the 70 percent level could be exceeded under system normal conditions but a network outage would need to occur for the largest single contingency to exceed 700 MW.
- Dr Steve Gould asked how the Karara mine load would be affected by the contingencies under discussion. Mr Sharafi and Mr Greg Ruthven replied that this would depend on the specific contingency, with Karara losing supply in some but not all cases.
- Ms Laidlaw noted that under a typical constrained network access regime, a Generator would not be compensated if the dispatch

engine determined the most efficient option was to constrain the output of that Generator to reduce the overall Spinning Reserve requirement. Ms Laidlaw questioned why the new Generators could not be constrained down without compensation under their Network Control Service Contracts. Mr Sharafi replied that the Network Control Service Contracts only applied to constraints applied by the Generator Interim Access (GIA) tool, so constraints applied by System Management for 'non-network' reasons would still result in constrained off compensation.

- Mr Williams suggested there were three values to be compared: the value of the cheaper energy produced by the Generators, the cost of additional network infrastructure to reduce the existing constraints and the cost of additional Spinning Reserve to address the contingency issue. There was some discussion about these options. Mr Sharafi considered that under the current market construct the relevant price signals were not being felt by the right parties.
- Mr Williams suggested that Western Power is required under the Technical Rules to take into account the Spinning Reserve requirement specified in the Market Rules when making a connection decision. Mr Williams questioned whether the new Generators can connect if this increases the Spinning Reserve requirement beyond the level prescribed in the Market Rules.
 Mr Sharafi considered that the problem is not a GIA connection issue but a problem with the Market Rules.
- There was some discussion about the need for additional Spinning Reserve, the rationale for setting the Spinning Reserve requirement at 70 percent of the largest Generator's output, and the role played by droop response and Upwards LFAS in managing contingencies. After some discussion, it was clarified that the Upwards LFAS enablement quantity forms part of the 70 percent Spinning Reserve enablement.
- Mr Martin noted that the issue had been raised in the context of the WEM reform program and one of the program's first tasks was to look at the Ancillary Services framework. Mr Martin considered there is a general acknowledgement of the problem, and noted the PUO intends to work with AEMO to progress a solution.
- Mr Patrick Peake suggested that it may be possible to increase the quantity of Spinning Reserve when necessary but charge the additional cost to the Generators that increased the requirement.
 Mr Noel Schubert and Mr Stevens proposed that a lower Spinning Reserve requirement should also be considered.
- Mr Stevens noted that changes to allow more Market Participants to provide Spinning Reserve would help to reduce the costs of the service. Ms Laidlaw noted that even with reduced Spinning

Reserve costs it would be preferable to assess these costs against the potential energy cost savings to determine the most efficient dispatch option.

- Mr Sharafi asked whether security constraints should be considered in the process for assigning Certified Reserve Capacity. No objections were raised to the inclusion of security constraints in this process.
- Mr Geoff Gaston noted that a network augmentation project was underway and asked whether timelines for the project had been established. Mr Douglas Thomson replied that Western Power constructed the Mid West Energy Project (MWEP) Stage 1 Project with double circuit capability of 330 kV because it recognised a potential future need. Western Power is currently seeing substantial interest from new generator applicants (wind and solar) and is aware of the issues raised in AEMO's presentation.

Mr Thomson noted that in developing a future augmentation project to convert the second circuit to 330 kV based on future customer connections (beyond those connecting to MWEP Stage 1), Western Power would need to capture all the necessary net market benefits associated with these connections.

The augmentation to convert the second circuit to 330 kV requires a number of other works associated with some of the substations in Northern Terminal, Neerabup, Regans, Eneabba and Three Springs. Mr Thomson noted that Western Power is currently reviewing the works that are needed to facilitate the project, and in the next three months will have a project scope for what is needed to convert the second circuit to 330 kV operation.

There was some discussion about the likely net benefits of the suggested network augmentation, and whether the current constrained off compensation arrangements could be used to justify further network augmentation.

- Mr Sharafi considered that a system planner role needs to be established to collectively look at all of these issues, and to determine a solution that creates the right incentives for the most efficient outcome (which may involve network augmentation and/or market-based solutions).
- Mr Cremin considered that the North Country will likely provide an
 increasing proportion of generation in the SWIS over the next 1020 years, while the level of generation from the Collie area will
 likely reduce; so there is a need for better pricing signals for
 Western Power to enable cheap energy from the North Country to
 reach consumers.
- Mr Peake considered that the lack of locational capacity and energy prices is also a problem, as there is nothing to tell a

developer to choose one location over another. Ms Laidlaw suggested that the risk of being constrained off without compensation would provide a clear signal to potential developers.

5 Update on AEMO's Market Procedures

Mr Sharafi noted the AEMO Procedure Change Working Group met in April 2018 and discussed changes to the:

- Power System Operation Procedure (PSOP): Commissioning and Testing;
- PSOP: Medium Term PASA; and
- PSOP: Short Term PASA.

Mr Sharafi advised that the next meeting is scheduled for June 2018 and is expected to cover the PSOP: Medium Term PASA and PSOP: Short Term PASA.

The MAC noted the update on AEMO's Market Procedures.

6 Network and Market Reform Program Update

Ms Kate Ryan gave an update on the work being undertaken by the PUO on the constrained network access reforms. Ms Ryan noted that the PUO was working through the feedback received from stakeholders and intended to publish a draft report that incorporates the PUO's thinking having reflected on the feedback. The draft report would give stakeholders another chance to provide input into the development of the reforms before the proposal is presented to Government for approval.

Ms Ryan noted the PUO understood from the feedback received that the case for constrained network access had not yet been clearly made, and was working to address this matter in the draft report. The PUO proposed to release the draft report in June 2018. By this time the results of the modelling exercise should be available, and the PUO would take the opportunity discuss the findings both generally and in one-on-one discussions with individual Market Participants.

Mr Martin, Ms Aditi Varma and Mr Stuart Featham then gave a presentation on the WEM reform program on behalf of the PUO and AEMO. A copy of the presentation is available on the Panel's website.

The following points were discussed.

Mr Peake considered that at some stage the Reserve Capacity
Mechanism should be expanded to cover the provision of ancillary
services such as inertia, fast-start capability and Spinning
Reserve. Mr Williams suggested that higher real-time prices could
also provide an incentive for the provision of these services.

 Mr Peake considered that a decision will need to be made within the next 3-5 years on how to ensure the output of behind-themeter solar installations does not threaten power system security.
 Ms Ryan noted that the PUO is working on a model of the future generation mix for the SWIS that will incorporate forecasts of the growth of behind-the-meter solar.

- Dr Gould asked why Western Power was not represented on the WEM Reform Co-ordination Committee (Committee). Mr Martin replied that the Committee's work would largely involve AEMO, the PUO and the Rule Change Panel with regard to actual rule changes. However, the PUO expected Western Power would be an important source of input to the reform program and would be part of any stakeholder forum or reference group.
- Ms Varma and Mr Martin sought the views of MAC members on the proposed MAC Working Group arrangements. Ms Wendy Ng asked how any policy matters that are identified by the Working Groups will be dealt with, given that the Committee will not deal with policy matters. Mr Martin replied that the PUO will make the call on what is provided to the Minister for endorsement. Ms Ryan noted that, while the Committee is likely to have discussions on policy matters, it will not make decisions or recommendations on policy matters.
- Ms Laidlaw asked if any more detail is available regarding the contents of the three proposed delivery tranches. Mr Featham confirmed that more detail had been developed and offered to provide the MAC with further information.
- Ms Ng noted that Synergy will be significantly affected by the proposed changes and asked how it would participate in the reform process. Ms Varma replied that facility bidding is a core part of the WEM reform program and the PUO is working with Synergy on how to achieve this outcome, taking into account the significant lead time and implementation costs involved. Mr Martin added that the PUO will also work closely with Synergy on other aspects of the reform program.
- Mr Featham noted that the current plan will require a lot of activity in the first two years, and sought the views of MAC members on what regulatory changes need to be completed before the start of the 2020 Reserve Capacity Cycle. Ms Ng asked whether the regulatory changes included changes to connection agreements and Electricity Transfer Access Contracts (ETACs). Ms Margaret Pyrchla replied that the Technical Rules and ETACs will need to be amended. Ms Ng suggested that the planning process should take into account AEMO's documentation requirements for the 2020 Reserve Capacity Cycle certification process.

- There was some discussion about requirements for the 2020 Reserve Capacity Cycle, what reforms could be progressed earlier as 'quick wins', and the option to defer implementation of some non-critical changes.
- Mr Cremin asked for an update on how the WEM reform program will be funded. Mr Martin advised that the Government will pay for the work done by the PUO, while the market will pay for the work done by AEMO. The PUO will have responsibility for the actual legal drafting process and the work it undertakes. The PUO is developing a rule change to allow for cost recovery under the Allowable Revenue process for any work undertaken by AEMO.
- Mr Cremin suggested that either the PUO (as part of the rule change to allow AEMO to recover its WEM reform program costs) or the ERA provide Market Participants with a comparison of the Market Fees paid to the Independent Market Operator (IMO) vs those paid to AEMO. There was some discussion about the means of recovering market development costs and the value provided to Market Participants in return for Market Fees.

Action: The PUO and AEMO to circulate draft terms of reference for the proposed MAC Working Groups to support the WEM reform work program to the MAC for review and approval.

PUO/ AEMO

Action: The PUO and AEMO to provide further detail to the MAC on the contents of each of the three tranches listed in the WEM reform work program plan.

PUO/ AEMO

Action: The PUO to circulate a draft of the rule change to allow AEMO to recover its WEM reform work program costs for stakeholder review and comment.

PUO

7 Overview of Rule Change Proposals

The MAC noted the overview of Rule Change Proposals.

8(a) MAC Market Rules Issues List – Roles in the Market

Mr Richard Cheng facilitated a discussion of issues relating to roles and responsibilities in the Market Rules. The issues were provided by MAC members and observers in response to a request by RCP Support at the previous MAC meeting. The list of issues provided by MAC members and observers is available in the meeting paper for this agenda item.

Issue 1: Responsibility for setting document retention requirements (clauses 10.1.1 and 10.1.2) and confidentiality statuses (clauses 10.2.1 and 10.2.3)

Mr Maticka noted that AEMO believes accountability for these functions should be transferred from AEMO to the ERA. Ms Sara O'Connor considered that the ERA would need to review the options further before reaching an official position on the proposed change; but the ERA would need additional resources to take on any additional functions under the Market Rules.

Mr Maticka asked whether MAC members are comfortable that AEMO currently holds accountability for these functions. Ms Laidlaw noted that the document retention list has not been updated since market start. Mr Maticka agreed that management of the document retention list is not a major issue, but that confidentiality was a high-profile topic during the tenure of the IMO and it might now be worthy of a broader discussion. Ms Laidlaw noted that a low-urgency legacy Rule Change Proposal concerning confidentiality management (RC_2014_09: Managing Market Information) is currently open.

Ms Varma noted that the PUO intended to consider the confidentiality requirements for any new information created by the WEM reform program. However, Ms Varma confirmed that a full review of the WEM confidentiality framework is not within the scope of the WEM reform program.

Mr Maticka suggested that responsibility for management of confidentiality statuses might be considered as part of RC_2014_09. After some discussion it was agreed to include the two suggestions in the list of potential Rule Change Proposals, but to delay further MAC discussion until the ERA had determined its position.

Process for the Remaining Issues

The Chair noted it would not be possible to consider all the listed issues before the end of the meeting. Mr Martin offered to review the list and provide an update at the 13 June 2018 MAC meeting on which issues were being addressed as part of the WEM reform program. The Chair agreed and noted the MAC could then consider the remaining issues on the list.

Action: The PUO to advise which of the issues listed in the meeting paper for agenda item 8(a) of the 9 May 2018 MAC meeting are to be addressed as part of the Minister's WEM market reform program.

PUO

8(b) MAC Market Rules Issues List – Treatment of Storage in the Wholesale Electricity Market

The Chair noted that treatment of storage in the WEM is the second broader review issue scheduled for preliminary discussion by the MAC. The Chair advised that the agenda item paper was developed by RCP Support with no input from the PUO. The goal of the paper

and discussion is firstly to confirm there is an issue that needs to be reviewed, and secondly to consider what this review would look like.

The Chair asked Ms Laidlaw to lead the discussion. Ms Laidlaw stressed that the discussion was intended to be preliminary and was not meant to resolve all the matters raised in the discussion paper.

The following points were discussed.

- The MAC agreed that storage could, as part or all of a Registered Facility, help to address several of the current and developing problems in the WEM.
- Mr Cremin raised a problem with the large-scale generation certificate (LGC) market, in that the charging and discharging of a storage device can lead to double counting of LGCs. Mr Matthew Bowen suggested that the relevant characteristics of storage included not just that they both import and export material quantities of energy, but also that the energy they export is the same energy they import.
- The MAC discussed the services that might be provided by a stand-alone storage facility beyond those listed in the discussion paper. Mr Sharafi noted that storage could also provide inertia, system strength and droop response; and that in a recent EirGrid trial, batteries were found to be more effective in providing grid stability services than conventional generators.
- Mr Bowen noted a recent Australian Energy Market Commission publication that contains a pie chart showing 14 different services batteries can provide across the network. Mr Bowen offered to send details of the publication to RCP Support.
- Ms Laidlaw asked whether storage facilities might be capable of providing a black start service in the WEM. Mr Sharafi replied that a battery would need to be very large to provide such a service. Mr Cremin noted that batteries are already used to provide 'black start' services to a generator.
- Mr Schubert suggested it may be simpler to create a new 'bi-directional' facility category, which would encompass not only storage but also loads served by behind-the-fence generators, e.g. the current Intermittent Loads. There was some discussion about the relative benefits of registering a storage unit as a single facility or as a pair of facilities (e.g. a Scheduled Generator and a Scheduled Load).
- Mr Stevens noted that the current requirement for certified Scheduled Generators to hold sufficient fuel for 14 hours' operation may not suit a battery. Ms Ng suggested that the 14-hour requirement could be reduced, for example to 3-4 hours. Ms Laidlaw considered that one of the biggest questions to be

resolved was how long and how frequently a storage facility would need to be able to run to earn Capacity Credits.

- Mr Gaston suggested that there was also a need to look at the aggregation of facilities such as residential Loads. Ms Laidlaw replied that this would be considered in the next scheduled preliminary discussion, which would cover behind-the-meter issues.
- Mr Stevens suggested that changes should be made to the Market Rules as soon as possible to allow storage facilities to connect to the SWIS and provide at least some services, such as energy arbitrage and maybe LFAS.
- There was some discussion about what information System Management would require regarding a storage facility, e.g. its state of charge and technical capabilities.
- Dr Gould considered that the impact of storage on the Notional Wholesale Meter will need to be considered, as storage could be used to increase or decrease the Notional Wholesale Meter's consumption during the peak Trading Intervals that determine Individual Reserve Capacity Requirements.
- In response to a question from Ms Ng, Ms Varma confirmed that the PUO is not currently considering a change to 5-minute settlement. There was some discussion about the rationale for the recent change to 5-minute settlement in the NEM.
- Mrs Jacinda Papps noted that Alinta has installed a battery in its Newman power station. The battery is designed to provide both of the 'hybrid' functions listed in the discussion paper (i.e. to support the gas plant and facilitate future renewable generation).
- Mr Cremin considered that changes to the Market Rules are needed well before 2022 to address the issues created by the growth of behind-the-meter generation. There was some discussion about what minimal changes could be made to allow storage to connect to the SWIS and provide critical benefits before 2022.
- The MAC agreed that support for storage should be implemented in the WEM as soon as possible, and in a staged manner if necessary.
- Ms Laidlaw asked if the MAC agreed that development of support for storage should be considered as part of the WEM reform program. Ms Varma replied that support for storage was already within the scope of the WEM reform program. Mr Sharafi suggested that the WEM needed storage well before 2022.
 Mr Martin replied that the PUO intended to work with AEMO to

bring forward any changes that could be made and provide benefits before 2022.

- Mr Sharafi considered that it may already be economically viable for storage to provide some services in the WEM.
- Ms Laidlaw asked whether the PUO or AEMO was investigating interim solutions to support storage in the WEM. Mr Martin noted that the PUO is considering battery storage as part of its proposed scope of work on ancillary services. The PUO intends to seek feedback from the MAC on the proposed scope of the ancillary services work and the proposed treatment of energy storage. Ms Varma added that the PUO is working closely with AEMO on these proposals.
- Ms Laidlaw recommended that if anyone has a proposal on how to facilitate storage in the interim period before 2022, they should bring it to the attention of either the PUO or the MAC.
- The MAC agreed that candidate issue 28 for the MAC Market Rules Issues List (Issues List) should be placed on hold pending the outcomes of the WEM reform program.

Action: MAC members and observers to provide any additional points they consider should be included in the lists in sections 3, 4 and 5 of the 9 May 2018 MAC discussion paper "Treatment of Storage Facilities in the Wholesale Electricity Market" by 5:00 PM on Thursday 31 May 2018.

ΑII

Action: RCP Support to provide an updated version of the lists in sections 3, 4 and 5 of the 9 May 2018 MAC discussion paper "Treatment of Storage Facilities in the Wholesale Electricity Market" to the PUO, after updating the lists to reflect any additional points raised by MAC members and observers.

RCP Support

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

The Chair noted that RCP Support is developing a proposal on how to manage the Issues List, and will present the proposal for discussion at the 13 June 2018 MAC meeting. The proposal includes dividing the issues into three categories:

- potential Rule Change Proposals;
- broader issues that require further review before any specific changes to the Market Rules or other regulatory instruments are progressed; and
- issues on hold pending some external activity or event, such as the WEM reform program.

The Chair noted that the paper for this agenda item included the Panel's preliminary urgency ratings for the seven potential Rule Change Proposals previously identified by the MAC. The Chair sought the views of MAC members on whether three of those issues should be retained as potential Rule Change Proposals in the Issues List.

Issue 14/36: Capacity Refund Arrangements

Mr Daniel Kurz noted that Bluewaters was happy for issue 14/36 to be parked until more data becomes available on the impact of the new dynamic capacity refund arrangements on Market Participants. The MAC agreed to place the issue on hold for 12 months to allow time for historical data on dynamic refund rates to accumulate.

Issue 18: Spinning Reserve procurement model

The Chair noted the Panel's suggestion that issue 18 be removed from the Issues List, and re-inserted if Bluewaters' discussions with AEMO and the ERA determine there is a requirement for a specific Rule Change Proposal.

There was some discussion about the current Spinning Reserve procurement process and potential improvements to that process for the 2019-20 Financial Year. There was general agreement that no specific potential Rule Change Proposal had been identified.

The MAC agreed to Ms Varma's suggestion to place the issue on hold pending the outcomes of the WEM reform program's ancillary services review.

Issue 20/38: Spinning Reserve Cost Allocation Model

The Chair noted the PUO's previous advice that it intended to develop a Rule Change Proposal to implement a full runway cost allocation model for Spinning Reserve (listed as 'issue 20/38 alt' in the meeting papers).

Mr Martin noted that the PUO had done some work on the issue and could bring that work back to the MAC, but wanted to make clear that it is working on a broader market reform program rather than just piecemeal issues. Mr Stevens considered that if the change could be implemented relatively quickly and easily, then it should not be delayed until the main reform implementation in 2022.

Ms Laidlaw noted that most respondents supported implementation of the full runway model (issue 20/38 alt) over the adjustment to block sizes proposed by Bluewaters in issue 20/38. Mr Stevens suggested that both options be removed from the Issues List if no party intended to develop a Rule Change Proposal. Ms Laidlaw noted that the options could remain listed as potential Rule Change Proposals even if there were no current volunteers for their development.

Mr Kurz indicated that Bluewaters had decided not to develop a Rule Change Proposal for the adjusted block option due to the PUO's

advice that it intended to develop a proposal for the full runway option. There was some discussion about the likely net benefits of progressing either of the options before the main market changes in 2022.

The MAC agreed to the Chair's recommendation to retain both options on the list of potential Rule Change Proposals.

9 General Business

Relevant Level Methodology Review

Ms O'Connor asked MAC members and observers to contact her if they wished to join the stakeholder working group that was recently established by the ERA to support its review of the Relevant Level Methodology.

The meeting closed at 4:00 PM.



Agenda Item 4: MAC Action Items

Meeting 2018_06_13

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

Item	Action	Responsibility	Meeting Arising	Status
19/2017	The PUO to consult with AEMO and RCP Support on how to address the concerns raised by MAC members about the 2017/03 Amending Rules and develop a proposal for consideration at the next MAC meeting.	PUO/ AEMO/ RCP Support	August 2017	Open To be progressed as part of the WEM Reform Program
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	Closed



Item	Action	Responsibility	Meeting Arising	Status
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
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	Closed
5/2018	AEMO to give a presentation at the next MAC meeting on a specific scenario that can occur as a result of generators connecting to a part of the network that gives rise to either increased ancillary services requirements or a signal for investment to remove a network constraint.	AEMO	March 2018	Closed
6/2018	The ERA to prepare a document for the MAC describing the types of Rule Change Proposals that the ERA intends to develop, and the practical ring fencing arrangements for work undertaken by the ERA to support the Panel	ERA	March 2018	Open
7/2018	RCP Support to publish the minutes of the 14 March 2018 MAC meeting on the Rule Change Panel's (Panel's) website as final.	RCP Support	May 2018	Closed
8/2018	The PUO and AEMO to circulate draft terms of reference for the proposed MAC Working Groups to support the WEM reform work program to the MAC for review and approval.	PUO/ AEMO	May 2018	Open



Item	Action	Responsibility	Meeting Arising	Status
9/2018	The PUO and AEMO to provide further detail to the MAC on the contents of each of the three tranches listed in the WEM reform work program plan.	PUO/ AEMO	May 2018	Open
10/2018	The PUO to circulate a draft of the rule change to allow AEMO to recover its WEM reform work program costs for stakeholder review and comment.	PUO	May 2018	Open
11/2018	The PUO to advise which of the issues listed in the meeting paper for agenda item 8(a) of the 9 May 2018 MAC meeting are to be addressed as part of the Minister's WEM market reform program.	PUO	May 2018	Open
12/2018	MAC members and observers to provide any additional points they consider should be included in the lists in sections 3, 4 and 5 of the 9 May 2018 MAC discussion paper "Treatment of Storage Facilities in the Wholesale Electricity Market" by 5:00 PM on Thursday 31 May 2018.	All	May 2018	Open
13/2018	RCP Support to provide an updated version of the lists in sections 3, 4 and 5 of the 9 May 2018 MAC discussion paper "Treatment of Storage Facilities in the Wholesale Electricity Market" to the PUO, after updating the lists to reflect any additional points raised by MAC members and observers.	RCP Support	May 2018	Open



MARKET ADVISORY COMMITTEE MEETING, 13 JUNE 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	e 20 April 2018 July 2018 (date TBA)	
Market Procedures for	PSOP: Commissioning and Testing	Likely agenda
discussion	PSOP: Medium Term PASA	PSOP: Commissioning Tests
	PSOP: Short Term PASA	PSOP: Outages

3. AEMO PROCEDURE CHANGE PROPOSALS

The status of AEMO Procedure Change Proposals is described below, current as at 6 June 2018. Changes since the previous MAC meeting are in red text. A procedure change is removed from this report after its commencement has been reported or a decision has been taken not to proceed with a potential Procedure Change Proposal.

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

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



Agenda Item 8(a): Overview of Rule Change Proposals (as at 2 May 2018)

Meeting 2018_06_13

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

Rule Change Proposals Commenced since the last MAC Meeting

Reference	Submitted	Proponent	Title	Commencement
None				

Approved Rule Change Proposals Awaiting Commencement

Reference	Submitted	Proponent	Title	Commencement
RC_2018_01	24/04/2018	Rule Change Panel	New Notional Wholesale Meter Manifest Error	01/09/2018

Rule Change Proposals Awaiting Approval by the Minister

Reference	Submitted	Proponent	Title	Approval Due Date
RC_2017_06	17/07/2017	AEMO	Reduction of the prudential exposure in the Reserve Capacity Mechanism	29/06/2017



Formally Submitted Rule Change Proposals

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
Fast Track R	ule Change F	Proposals with	the Submission Period Closed			
None						
Fast Track R	ule Change F	Proposals with	the Submission Period Open			
None						
Standard Rul	e Change Pr	oposals with S	Second Submission Period Closed			
RC_2014_10	13/01/2015	IMO	Provision of Network Information to System Management	Superseded	Publication of Final Rule Change Report	Call for further submissions closed 01/06/2018
RC_2014_07	22/12/2014	IMO	Omnibus Rule Change	Low	Publication of Final Rule Change Report	TBD
Standard Rul	e Change Pr	oposals with	Second Submission Period Open			
None						
Standard Rul	e Change Pr	oposals with I	First Submission Period Closed			
RC_2013_15	24/12/2013	IMO	Outage Planning Phase 2 – Outage Process Refinements	Medium	Publication of Draft Rule Change Report	TBD
RC_2014_03	27/01/2014	IMO	Administrative Improvements to the Outage Process	High	Draft Decision Report	TBD
RC_2014_05	02/12/2014	IMO	Reduced Frequency of the Review of the Energy Price Limits and the Maximum Reserve Capacity Price	Medium	Publication of Draft Rule Change Report	TBD



Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
RC_2014_06	28/01/2015	IMO	Removal of Resource Plans and Dispatchable Loads	Medium	Draft Decision Report	TBD
RC_2014_09	13/03/2015	IMO	Managing Market Information	Low	Publication of Draft Rule Change Report	TBD
RC_2015_01	03/03/2015	IMO	Removal of Market Operation Market Procedures	Low	Publication of Draft Rule Change Report	TBD
RC_2015_03	27/03/2015	IMO	Formalisation of the Process for Maintenance Requests	Low	Publication of Draft Rule Change Report	TBD
RC_2017_02	04/04/2017	Perth Energy	Implementation of 30-Minute Balancing Gate Closure	Medium	Publication of Draft Rule Change Report	TBD
RC_2018_03	01/03/2018	Collgar Wind Farm	Capacity Credit Allocation Methodology for Intermittent Generators	Medium	Publication of Draft Rule Change Report	24/04/2019
Standard Rul	e Change Pr	oposals with t	he First Submission Period Open			
None						

Gazetted Rule Changes

Ga	zette	Content	Commencement			
Number	Date					
Gazetted I	Gazetted Rule Changes Commenced since the last MAC Meeting					
None						



Gazette		Content	Commencement
Number	Date		
Gazetted	Rule Changes	not yet Commenced	
2016/89	31/05/2016	Wholesale Electricity Market Amending Rules 2016, Schedule B, Part 4 • Further changes to the Reserve Capacity Mechanism involving Reviewable Decisions	A time specified by the Minister in a Gazette notice

Rule Changes Proposed by the Minister open for Consultation

Reference	Proponent	Description	Next Step	Timing
None				

Potential Rule Changes in the Pre-Rule Change Proposal Stage

Reference	Proponent	Description	Next Step	Timing
None				





Economic Regulation Authority

ERA Rule Change matters

Market Rule 2.13 and 2.16 issues

Adrian Theseira
Assistant Director, Compliance
ERA



Economic Regulation Authority

Purpose:

- Consult with MAC prior to developing ERA rule change on data use restrictions & SRMC investigation process
- Rule change scope now broader than discussed at Dec 17 MAC
- New rule MR 2.51B requires ERA to consult with MAC on:
 - Matters to be addressed by rule change (i.e. scope)
 - Options
 - Costs
 - Whether and when ERA should develop
 - Whether and how MAC will be consulted



Issue 1 Market Data for Compliance Monitoring:

- MR 2.13 requires ERA to monitor compliance but no head of power in the rules to require AEMO to provide ERA with data to do this job (added to scope).
- AEMO already provides ERA with access to market data under MR 2.16.1 through Market Surveillance Data Catalogue (MSDC), but MR 2.16.14 restricts the use of this information (Discussed at Dec 17 MAC meeting).
- ERA has existing approval and new review functions under the rules and the MSDC information could be useful for these other functions (added to scope).



Issue 1 Suggested option to address issues

- Amend clause 2.13 to provide head of power for ERA to obtain market data from AEMO for compliance monitoring.
- Amend clause 2.16 to the effect that the ERA can use the MSDC information for any of its functions in the Market Rules.



Issue 2: SRMC investigations

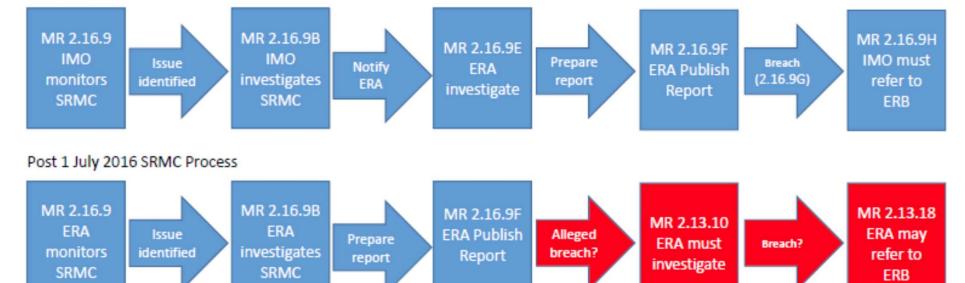
 ERA is required to investigate SRMC matters but MR 2.16 and MR 2.13 rules overlap and process is inefficient



Economic Regulation Authority

Issue 2: SRMC Investigation Process

Pre 1 July 2016 SRMC Process



*MR 2.16.14 precludes any information gathered in the MR 2.16 investigation from being used in the MR 2.13 investigation





Issue 2: Suggested option to resolve issue

 Insert a new Market Rule 2.16 clause similar to that in place prior to 1 July 2016 that allows ERA to bring SRMC investigation matters before the ERB (Discussed at Dec 17 MAC meeting)



Economic Regulation Authority

Correct minor typographical error

2.16.9FA.Where the Economic Regulatory
 Regulation Authority makes such an extension it must publish a notice of the extension on the Market Web Site......



Market Rule 2.5.1B items – MAC consultation

- 2.5.1B(c) Costs will be done as BAU
- 2.5.1B(d) Whether ERA should progress rule change proposal and when? (Intention is for one rule change proposal to cover all issues)
- **2.5.1B(e)** How will MAC be consulted? (Pre rule change proposal?)



Agenda Item 9: Rule Change Prioritisation

13 June 2018

1. Background

In July 2017, the Rule Change Panel (**Panel**) implemented a Framework for Rule Change Proposal Prioritisation and Scheduling (**Framework**) after consultation with and the Market Advisory Committee (**MAC**). Under the Framework, the Panel determines the priorities for progressing Rule Change Proposals (**Proposals**) based on the following criteria:

- the urgency rating of the Proposals;
- the submission date of the Proposals;
- resource requirements to process the Proposals, including:
 - RCP Support internal resources;
 - specialist consultancy requirements;
 - external assistance, including from the Australian Energy Market Operator (AEMO);
- qualifying factors, including:
 - any specific timing considerations, such as the need to align commencement of the Amending Rules with the Reserve Capacity Cycle;
 - IT and process implementation cycles; and
 - interdependencies with Government reforms, Economic Regulation Authority (ERA) reviews, etc.

The submitter of the Rule Change Proposal and the MAC make recommendations to the Panel on urgency ratings for Proposals, and the Panel assigns urgency ratings, based on the following questions:

- is the Proposal necessitated by external events;
- is the Proposal seeking to address a market failure;
- how bad/good might the outcomes be, in terms of the Wholesale Market Objectives, if the Proposal is delayed/progressed promptly; and
- what are the likely implementation and ongoing operational costs?

Table 1 lists the urgency ratings that may be recommended by the submitter of the Rule Change Proposal and/or the MAC, and assigned by the Panel.



	Table 1 – Urgency Ratings			
Urgency	Description	Resourcing Implications		
1	Essential: e.g. legal necessity, unacceptable market outcomes or a serious threat to power system security and reliability	Do not delay – acquire additional resources, request increase to the ERA budget from Treasury if necessary		
2	High: Compelling proposal, and either large net benefit or else necessary to avoid serious perverse market outcomes	Do not delay – acquire additional resources if available subject to overall ERA budget limitations		
3	 Medium: Net benefit either: may be large but needs more analysis to determine; or material but not large enough to warrant a High rating 	May delay up to 3 months if budgeted resources unavailable		
4	Low: Minor net benefit, e.g. reduced administration costs	May delay up to 6 months if budgeted resources unavailable		
5	Housekeeping: Negligible market benefit, e.g. just improves the readability of the Market/GSI Rules	May delay up to 12 months if budgeted resources unavailable		

2. Discussion

Table 2 lists the current order of business that RCP Support is following for the existing Proposals, based on the criteria listed in the Framework, and the urgency ratings currently assigned to each Proposal. This order of business is provided for the information of the MAC, and is subject to change over time, depending on changes to the factors listed in the Framework; and in particular, depending on the Wholesale Electricity Market (**WEM**) Reform Program, availability of AEMO resources, and any Proposals received by the Panel.

On 28 May 2018, Perth Energy submitted an out of session submission regarding RC_2017_02: Implementation of 30-Minute Balancing Gate Closure. In this submission, Perth Energy noted that RC_2017_02 has been given a Medium urgency rating, and recommended that:

- the urgency rating for RC_2017_02 should be changed to High;
- RC_2017_02 should be progressed as a matter of urgency, preferably in conjunction with implementation of the Generator Interim Access (GIA) solution; and
- if a 30-minute gate closure cannot be implemented within the next two years, then a 60-minute gate closure should be progressed.

Perth Energy's submission was published on the Panel's website on 6 June 2018, and is attached to this MAC paper.



3. Recommendation

The MAC is asked to consider Perth Energy's submission and to make a recommendation to the Panel on whether to amend the urgency rating for RC_2017_06, in light of:

- the arguments Perth Energy has made in its submission;
- the criteria in the Framework;
- RCP Support and AEMO resourcing constraints, particularly with respect to the WEM Reform Program; and
- the current order of business in Table 2 (noting that changing the urgency rating for RC_2017_02 may change the order of business).





	Table 2 – Current Order of Business for Proposals				
Order		Proposal		Status	
0	RC_2017_06	Reduction of the prudential exposure in the Reserve Capacity Mechanism	High	Approved by the Panel and awaiting approval by the Minister.	
0	RC_2018_01	New Notional Wholesale Meter Manifest Error	High	Approved and awaiting commencement.	
1	RC_2014_06	Removal of Resource Plans and Dispatchable Loads	Medium	Currently preparing the Draft Rule Change Report.	
1	RC_2014_10	Provision of Network Information to System Management	Low	The call for further submissions closed and the Panel will now consider next steps.	
1	RC_2014_03	Administrative Improvements to the Outage Process	High	RCP Support and AEMO are discussing availability of resources for:	
2	RC_2013_15	Outage Planning Phase 2 – Outage Process Refinements	Medium	RCP Support and AEMO to progress development of these three Proposals; and	
3	RC_2017_02	Implementation of a 30-Minute Balancing Gate Closure	Medium	AEMO to implement these three Proposals. RCP Support also needs to consider the interdependencies of these three Proposals with the WEM Reform Program.	
1	RC_2014_07	Omnibus Rule Change	Low	Will be progressed next due to resource availability.	

	Table 2 – Current Order of Business for Proposals					
Order	Order Proposal		Urgency	Status		
4	RC_2014_09	Managing Market Information	Low	Will be progressed as resources become available.		
4	RC_2015_01	Removal of Market Operation Market Procedures	Low			
4	RC_2015_03	Formalisation of the Process for Maintenance Requests	Low			
5	RC_2018_03	Capacity Credit Allocation Methodology for Intermittent Generators	Medium	On hold pending completion of ERA reviews.		
5	RC_2014_05	Reduced Frequency of the Review of the Energy Price Limits and the Maximum Reserve Capacity Price	Medium			



Wholesale Electricity Market Proposal to Change Rule Change Priority

RC_2017_02 Implementation of 30-Minute Balancing Gate Closure

Submitted by

Name:	Patrick Peake
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Organisation:	Perth Energy
Address:	L24 Forrest Centre, 221 St Georges Terrace, Perth WA
	6000
Date submitted:	28 May 2018

Submissions on Rule Change Proposals 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

Background

On 4 April 2017 Perth Energy submitted a Rule Change Proposal (RC_2017_02) proposing that the Balancing Gate Closure period be reduced from the current two hours to 30 minutes. The proposal was discussed at the MAC meeting on 1 May 2017 at which Perth Energy provided a presentation. The rule change proposal was subsequently rated as being of medium urgency and the nominated date to provide a draft Rule Change report was moved in steps from May 2017 to December 2017 and, finally, December 2018.

There have been a number of significant events since the urgency rating was set at medium and Perth Energy considers that these have substantially strengthened the case to shorten the gate closure period. Perth Energy seeks a change of the urgency rating of the proposed rule change to high so that it can be followed through.

Perth Energy acknowledges that moving to 30 minute gate closure will provide some challenges and is most likely contingent on Synergy moving to facility dispatch from the

current portfolio dispatch. Synergy has indicated elsewhere its desire to move to facility bidding and Perth Energy strongly supports this and supports all units operating with the same gate closure period. However, if the preconditions for 30 minute gate closure cannot be achieved we would, reluctantly, support the rule change proposal being modified to achieve 60 minute gate closure. We stress, however, that this would deliver less benefits to AEMO, generators and customers and should be considered as an interim move.

Original proposal and justification

The current Balancing Gate Closure arrangement means that information used by market participants to finalise balancing submissions is 2½ hours old. While this was appropriate when the balancing market was established some five years ago, the increased percentage of non-scheduled generation, and especially export from behind-the-meter solar systems, means that load has the ability to change significantly within this time frame.

In the rule change proposal Perth Energy advised that it assessed a 60 day period in early 2017 and that this had shown substantial load and price forecast errors including:

- Maximum load forecast errors of +294 MW and -428 MW;
- Where the load forecast increased after balancing gate closure the increase was 56 MW on average and was over 100 MW for 8% of trading intervals;
- Where the load forecast decreased after balancing gate closure the decrease was 74
 MW on average and was over 100 MW for 12% of the trading intervals;
- The maximum price forecast error was approximately +\$147 and -\$107 per MWh;
- Where the forecast price increased the increase was 29% on average; and
- Where the forecast price decreased the fall averaged around -19%.

Inaccurate price signals flow through to inefficient market outcomes. Perth Energy estimated that the inability of generators to respond to correct price signals for the 60 days in early 2017 resulted in a loss to customers of almost nine million dollars. Extrapolating this across a full year indicates additional customer costs of around \$50 million.

Subsequent Market Events

Changes to the Generator Interim Access (GIA) arrangement

The GIA was proposed by Western Power to Market Participants on 5th April 2017 in a presentation from Sean McGoldrick to the WA Generator Forum. In that presentation the following key points were made:

- 1. The GIA would be in service by Q3 2018;
- 2. The GIA was an interim solution to connect generators in 2018/19;
- 3. It was not scalable; and
- 4. It was a short term solution to be replaced by AEMO's market tools in mid-2019

Verbal indications at the time were that the solution would be for 400MW of capacity to be connected.

At the recently held Generator Forum¹, Western Power advised that the GIA arrangement will now cover up to eight new generators with a maximum capacity of 900 MW. Further, the arrangement will remain in place for at least four years because the new access arrangements will not be in place until October 2022 at the earliest.

Western Power explicitly stated that their modelling of the arrangement has indicated that it will cause increased inaccuracy for the forecast balancing price. So, contrary to the project scope provided 13 months ago, the GIA will now:

- accentuate the inaccuracies in the load and balancing price forecasts;
- be substantially larger than was originally intended; and
- have a much longer duration than originally planned.

Perth Energy raised the issue that the GIA contravened market objectives, specifically that of economically efficient supply in 2017. Based on Western Power's admissions at the Generator Forum, this has now been proven to be correct. The increase in load and price inaccuracy that the GIA will bring to the market <u>for the next 4 years</u> is unacceptable for WA's energy consumers, who pay the price for these levels of inaccuracy and for inefficient dispatch.

Continued strong solar generation growth

The growth in behind-the-meter solar PV installation continues with no indication that it will plateau in the near future. Housing developers are now including solar PV as a standard item on new homes, and there is considerable (untapped) potential for behind-the-meter solar to be installed on commercial buildings.

A number of centralised solar power stations are now actively being developed in the SWIS. While these can be asked to turn down, unlike behind-the-meter solar, they still contribute to the potential swings and forecast uncertainties that AEMO is currently facing.

The issue of "uncontrolled" PV and forecast accuracy was discussed by AEMO at a hearing at the Microgrid Inquiry currently being run by State Parliament. At that hearing the following statements were made

"Our (AEMO's forecasting) accuracy is probably the same as what it was 10 years ago, but with so much more uncertainty. We will continue to get better, but ultimately I am feeling that we are starting to stretch the friendship. We are working with CSIRO on a cloud forecasting system with cameras looking up at the sky to find out what is happening from a cloud perspective, so trials like that are underway, but that, again, is only going to help us to deal with some of that uncertainty that goes forward. ... If I fall back again to history, we knew those control systems in the power system on the generation side; we knew what was in it. There were technical rules that define that. The technical rules on the demand side are not so great. Ultimately, we just do not have the visibility and we cannot know exactly what is happening across 200 000 or 300 000 homes, but we can get a better indication of it.

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¹ 16th May 2018

It is all about having predictability and then ultimately to support that is not just understanding what is out there but how they are likely to respond."

The issue of forecast inaccuracy in load and price is becoming acute.

Expenditure on ancillary services

One of the impacts of forecast uncertainty is the need to use more ancillary services. AEMO recently advised that the cost for ancillary services is running at around \$8 million per month - ~\$100 million per year.

There is also a question as to whether Synergy is actually receiving correct payment for the spinning reserve and load following services that it provides to the grid.

These costs, both actual and hidden, are directly influenced by the level of forecasting error so the changes to the GIA and continued strong solar growth can be expected to push them still higher.

Responses from MAC Members to original proposal

In general most of the submissions received in response to the rule change proposal were positive though AEMO advised that a reduction to a 60-minute Balancing Gate Closure would require some complementary changes to dispatch and settlement arrangements, while a further reduction to 30 minutes is infeasible in the absence of more fundamental reform of the WEM.

Synergy raised the objection that they would be disadvantaged if their plant continued to bid as a portfolio and remained on a much longer gate closure timeframe. Dispatch on a facility basis would address this and would place Synergy's plants on an equal footing with independently owned plant. This would also facilitate the correct identification and assignment of costs for ancillary services thereby helping to address another significant issue.

Summary

The substantial errors in both load and balancing price forecasts are by the admission of the network and system operators going to become significantly worse due to the continuing increase in behind-the-meter solar systems, substantial increases in centralised intermittent generating plants, and the implementation of a "pre-dispatch" tool that will operate during current gate closure that creates "firm" and "non-firm" pricing.

This will cause the cost of supply to customers to rise due to:

- Generators not being able to optimally bid into the Balancing Market;
- Generators pricing in the additional risks; and
- Excessive reliance on ancillary services.

The most effective way to minimise this problem without having to replace the dispatch engine earlier than the currently proposed 2022 is to reduce the timeframe over which the

forecasts are made thereby reducing the impact of the inevitable errors. Reducing gate closure to 30 minutes means that market participants are relying on a forecast that is made 60 minutes before gate closure rather than 150 minutes before.

These facts have always been known and there is a broad agreement that moving to shorter gate closure is desirable. Perth Energy considers that there is a new urgency to address this because of:

- The radical change to the Generator Interim Access arrangement;
- The continuing increase in solar PV both behind and in front of the meter; and
- The very high, but possibly understated, costs being incurred for ancillary services

The change to 30 minutes would also assist AEMO in other areas of dispatch such as commissioning tests.

Recommendation

It is recommended that the urgency level of RC_ 2017_02 be changed to high and that it be considered as a matter of urgency, preferentially in conjunction with the implementation if the GIA.

It is recommended that if the draft rule change report shows that 30 minute Balancing Gate Closure cannot be achieved within the coming two years, that Rule Change be progressed to achieve Balancing Gate Closure of 60 minutes



Agenda Item 10(a): MAC Market Rules Issues List

13 June 2018

Background

On 12 July 2017, the Market Advisory Committee (MAC) endorsed a proposal for RCP Support to develop and maintain a MAC Market Rules Issues List (Issues List), which is to be a list of the 'bigger ticket' items that MAC members and observers consider should be addressed in the Wholesale Electricity Market (WEM) Rules (Market Rules).

The MAC supported the periodic scheduling of sessions to give MAC members an opportunity to discuss the listed issues. The purpose of these sessions was to assist stakeholders, and in particular those who are likely to develop Rule Change Proposals, by providing a forum to:

- gauge the level of support for particular suggestions; and
- identify opportunities for parties to work together and coordinate the development of Rule Change Proposals.

The Issues List was not intended to include the major reforms that are expected to be progressed by the Minister for Energy through the Public Utilities Office (**PUO**) over the next few years, although it was expected that the list might provide useful input to the Minister's reform program (**WEM Reform Program**).

At its 8 November 2017 meeting, the MAC reviewed a list of 43 candidate issues that had been proposed for inclusion in the Issues List by MAC members and observers. The MAC identified:

- six issues as potential Rule Change Proposals;
- seven broader issues, encompassing fourteen candidate issues, that require further review before specific changes to the Market Rules are progressed;¹
- twelve issues that were placed on hold, as they are expected to be addressed by other market development activities currently in progress; and
- eleven issues that were deleted because they were either duplicates or issues that fall outside the scope of the Market Rules.

Recommendation

That the MAC:

- notes the update on the Issues List;
- endorses the proposed approach to managing the Issues List in future.

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



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Update on Potential Rule Change Proposals

The six potential Rule Change Proposals were discussed in greater detail at the 13 December 2017 MAC meeting. Following this discussion, MAC members and observers were asked to provide for each issue:

- what urgency rating they would recommend for a Rule Change Proposal addressing the issue (i.e. Essential, High, Medium, Low, Housekeeping or Do Not Progress); and
- whether their organisation was interested in developing a Rule Change Proposal to address the issue.

Members were also asked to provide the same information for an alternative solution for one of the issues, i.e. the implementation of a full runway model for Spinning Reserve cost allocation to address issue 20/38 (now issue 44).

The collated views of members and observers were presented at the 14 February 2018 MAC meeting. AEMO also gave a presentation at that meeting on work it had done to investigate whether rule changes were needed to address one of the issues (18: Short-term enhancements to the Spinning Reserve procurement process).

The Rule Change Panel (**Panel**) provided preliminary urgency ratings for the seven issues at its 22 March 2018 meeting. Following discussion of these ratings at the 9 May 2018 MAC meeting, the MAC agreed to:

- place issue 14/36 (Capacity Refund Arrangements) on hold for 12 months, to allow time for historical data on dynamic refund rates to accumulate;
- place issue 18 on hold pending the outcomes of the ancillary services review being undertaken as part of the Minister's WEM reform program; and
- retain both issue 20/38 (Spinning Reserve Cost Allocation Model) and the full runway alternative (issue 44) on the list of potential Rule Change Proposals.

The current list of potential Rule Change Proposals is provided in Attachment 1 of this paper.

Update on Broader Issues

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

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

A summary of the seven broader issues and their current status is provided in the following table. Preliminary discussions for these issues will be scheduled in the order listed, as agreed by the MAC at its 14 February 2018 meeting. A list of the associated candidate issues is provided in Attachment 1 of this paper.

Issue	Status
(1) Review of agency roles and responsibilities	Preliminary discussions took place at the MAC meetings on 14 March 2018 and 9 May 2018. To date two issues have been classified as potential Rule Change Proposals. A further discussion is scheduled under Agenda Item 10(b) of this MAC meeting.



Issue	Status
(2) Treatment of storage facilities in the market	A preliminary discussion took place at the 9 May 2018 MAC meeting. The MAC:
	agreed that support for storage should be implemented in the WEM as soon as possible, and in a staged manner if necessary;
	 noted that development of support for storage was within the scope of the WEM Reform Program;
	agreed to provide a revised version of the scoping points presented in the discussion paper, updated to reflect any further MAC feedback, to the PUO for consideration as part of the WEM Reform Program;
	 agreed that anyone with a proposal on how to facilitate storage in the interim period before 2022 should bring that proposal to the attention of the PUO and/or the MAC; and
	 agreed to place the associated candidate issue (issue 28) on hold pending by the outcomes of the WEM reform program.
(3) Behind-the-meter issues	Preliminary discussion not yet scheduled.
(4) Forecast quality	Preliminary discussion not yet scheduled.
(5) Commissioning Tests	Preliminary discussion not yet scheduled. However, on 22 May 2018 AEMO held a workshop on Commissioning Test issues in connection with its proposed changes to the Power System Operation Procedure: Commissioning and Testing.
(6) The basis of allocation of Market Fees	Preliminary discussion not yet scheduled.
(7) The Reserve Capacity Mechanism (excluding the pricing mechanism)	Preliminary discussion not yet scheduled.

Issues on Hold

The current list of issues on hold is provided in Attachment 1 of this paper.

Proposal for Future Management of the Issues List

RCP Support proposes the following approach to managing the Issues List in future.

- The Issues List will be divided into three sections or sub-lists:
 - 'Potential Rule Change Proposals', i.e. well-defined issues that could be addressed through the development of a Rule Change Proposal;



- 'Broader Issues' that require further discussion/review before specific changes to the Market Rules are progressed; and
- 'Issues on Hold' pending some event.
- A stakeholder may at any time raise a new issue for discussion by the MAC by emailing a request to the MAC Chair. The request should include at least a brief description of the issue for circulation to the MAC in advance of the discussion. For each issue raised:
 - the Chair will schedule the issue for discussion at the earliest opportunity, which will usually be the next scheduled MAC meeting; and
 - the MAC will discuss the issue and decide whether to add it to one of the three sub-lists or take no further action.
- If the MAC decides to add an issue to the Potential Rule Change Proposals list then RCP Support will seek a preliminary urgency rating from MAC members/observers and the Panel, and include this information in the list.
- If the MAC decides to add an issue to the Broader Issues list, then it will either flag the issue for inclusion in one of the currently scheduled preliminary MAC discussions, or identify and prioritise an additional preliminary discussion.
- RCP Support will aim to schedule discussions of the broader issues at the rate of one per MAC meeting, unless competing priorities prevent this.
- RCP Support will publish the Issues List on the Panel's website and update the list as necessary, usually after each MAC meeting.
 - Potential Rule Change Proposals will be closed after a Pre-Rule Change Proposal is presented to the MAC or a Rule Change Proposal is submitted.
 - Broader issues will be closed following the completion of the relevant preliminary discussion and any agreed follow-up discussions on the issue (the issues may in some cases be moved to another sub-list).
 - Issues on hold will be reviewed by the MAC once the trigger event has occurred, and then closed (the issues may in some cases be moved to another sub-list).
 - An issue may be closed at any time if the MAC agrees that the issue is no longer relevant.
- A 'MAC Market Rules Issues List Update' will be included as a standing item on MAC
 meeting agendas. The update will report changes to the Issues List since the previous
 MAC meeting, the current preliminary discussion schedule and details of any issues to
 be discussed at that meeting (e.g. new issues and issues that have been on hold
 awaiting an event that has now occurred).
- RCP Support will schedule annual MAC reviews of the Issues List, to confirm that the
 proposed treatment of issues is still appropriate and remove any issues that are no
 longer relevant.



Agenda Item 10(a) - Attachment 1: MAC Market Rules Issues List (13 June 2018)

ld	Submitter/Date	Issue	Urg	ency and Status	
Pote	otential Rule Change Proposals				
13	AEMO November 2017	Use of data for market monitoring and compliance The restriction on the ERA in clause 2.16.14 of the Market Rules prevents it from using information gathered in market monitoring for other purposes (e.g. compliance), which seems counter-intuitive. Removing or reducing this restriction will promote efficiency in market administration, supporting Wholesale Market Objectives (a) and (d).	Panel rating: MAC ratings: Low: Medium: To be discussed used 13 June 2018 MAC	Medium Peter Huxtable Geoff Gaston, AEMO, Alinta, Bluewaters under agenda item 8(b) of the C meeting.	
E	Bluewaters and ERM Power November 2017	Spinning Reserve Cost Allocation Model – block changes Appendix 2 of the Market Rules deals with Spinning Reserve cost allocation. The boundary between Block 1 and 2 is set at 200 MW. This, in conjunction with the sizes of the existing generating units in the WEM, creates a perverse incentive for some generating units to not make capacity available above 200 MW, because doing so is likely to	Panel rating: MAC ratings:	Medium, but likely to be parked pending progression of the preferred full runway model by the PUO, i.e. issue 44.	
		subject the generating units to a substantial increase in Spinning Reserve costs. Bluewaters recommended reviewing the value of the boundary between Block 1 and 2 of the Spinning Reserve cost allocation model. Bluewaters considered that addressing the perverse incentive is likely to give a more efficient dispatch outcome. This is likely to give downwards pressure to wholesale electricity prices, hence promoting economic efficiency, and in turn promoting the Wholesale Market Objectives.	Prefer full runway: AEMO Low: Geoff Ga	Alinta, Peter Huxtable : AEMO Geoff Gaston Bluewaters	



ld	Submitter/Date	Issue	Urç	gency and Status
		As an alternative, the MAC indicated support for considering a full runway Spinning Reserve cost allocation model (see issue 44).		
31	Synergy November 2018	LFAS Report Under clauses 7A.2.9(b) and 7A.2.9(c) of the Market Rules, Synergy is obligated to compile and send the LFAS weekly report to AEMO based on the LFAS data for each Trading Interval supplied to Synergy by System Management. Given that System Management is now part of AEMO, it seems reasonable to remove this obligation on Synergy to reduce administrative burden. This rule change supports Wholesale Market Objective (a).	Panel rating: MAC ratings: Low: Medium: High:	Low, but OK to progress using the Fast Track Rule Change Process Alinta, Bluewaters Geoff Gaston, AEMO Peter Huxtable
43	ERA November 2018	SRMC Investigation Process SRMC investigations under section 2.16 of the Market Rules no longer have a link to take these matters to the Electricity Review Board. A separate investigation is required under section 2.13 to take matters to the Electricity Review Board. This is neither efficient nor cost effective, and is further complicated by the information use restriction in clause 2.16.14 (see issue 13). Correcting this issue would support Wholesale Market Objectives (a) and (d).	Panel rating: MAC ratings: Low: Medium: High: To be discussed 13 June 2018 MA	Medium Bluewaters Geoff Gaston, AEMO, Alinta Peter Huxtable under agenda item 8(b) of the AC meeting.
44	MAC November 2017	Full Runway Spinning Reserve Cost Allocation Model Implementation of a full runway model for Spinning Reserve cost allocation (as an alternative solution to the option proposed in issue 20/38).	MAC meeting that paper or Pre-Rule	Medium Alinta, Peter Huxtable AEMO ed at the 14 February 2018 at it will develop a concept e Change Proposal for ne MAC in the near future.

ld	Submitter/Date	Issue	Urgency and Status
45	AEMO May 2018	Transfer of responsibility for setting document retention requirements AEMO suggested that responsibility for setting document retention requirements (clauses 10.1.1 and 10.1.2 of the Market Rules) should move from AEMO to the ERA. AEMO considers that it is not the best entity to hold this responsibility as it no longer maintains the broader market development and compliance functions of the IMO.	Waiting on the ERA to provide its position on the proposal.
46	AEMO May 2018	Transfer of responsibility for setting confidentiality statuses AEMO suggested that responsibility for setting confidentiality statuses (clauses 10.2.1 and 10.2.3 of the Market Rules) should move from AEMO to the ERA. AEMO considers that it is not the best entity to hold this responsibility as it no longer maintains the broader market development and compliance functions of the IMO.	Waiting on the ERA to provide its position on the proposal.

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



ld	Submitter/Date	Issue	Urgency and Status
11	AEMO November 2017	Whole-of-system planning oversight: As explained in AEMO's submission to the ERA's review of the WEM, AEMO considers the necessity of the production of an annual, independent Integrated Grid Plan to identify emerging issues and opportunities for investment at different locations in the network to support power system security and reliability. This role would support AEMO's responsibility for the maintenance of power system security and will be increasingly important as network congestion increases and the characteristics of the power system evolve in the course of transition to a predominantly non-synchronous future grid with distributed energy resources, highlighting new requirements (e.g. planning for credible contingency events, inertia, and fast frequency response). This function would support the achievement of power system security and reliability, in line with Wholesale Market Objective (a).	To be considered in the preliminary discussion of agency roles and responsibilities.
12	AEMO November 2017	Review of institutional responsibilities in the Market Rules. Following the major changes to institutional arrangements made by the Electricity Market Review, a secondary review is required to ensure that tasks remain with the right organisations, e.g. responsibility for setting confidentiality status (clause 10.2.1), document retention (clause 10.1.1), updating the contents of the market surveillance data catalogue (clause 2.16.2), content of the market procedure under clause 4.5.14, order of precedence of market documents (clause 1.5.2). This will promote efficiency in market administration, supporting Wholesale Market Objectives (a) and (d).	To be considered in the preliminary discussion of agency roles and responsibilities. Potential changes to responsibilities for setting document retention requirements and confidentiality statuses have been listed as potential Rule Change Proposals (issues 45 and 46).



ld	Submitter/Date	Issue	Urgency and Status
16	Bluewaters November 2017	Behind the Meter (BTM) generation is treated as reduction in electricity demand rather than actual generation. Hence, the BTM generators are not paying their fair share of the network costs, Market Fees and ancillary services charges.	To be considered in the preliminary discussions of behind-the-meter issues and the basis for allocation of Market Fees.
		Therefore, the non-BTM Market Participants are subsiding the BTM generation in the WEM. Subsidy does not promote efficient economic outcome.	
		Rapid growth of BTM generation will only exacerbate this inefficiency if not promptly addressed.	
		Bluewaters recommends changes to the Market Rules to require BTM generators to pay their fair share of the network costs, Market Fees and ancillary services charges.	
		This is an example of a regulatory arrangement becoming obsolete due to the emergence of new technologies. Regulatory design needs to keep up with changes in the industry landscape (including technological change) to ensure that the WEM continues to meet its objectives.	
		If this BTM issue is not promptly addressed, there will be distortion in investment signals, which will lead to an inappropriate generation facility mix in the WEM, hence compromising power system security and in turn not promoting the Wholesale Market Objectives.	
23	Bluewaters November 2017	Allocation of Market Fees on a 50/50 basis between generators and retailers may be overly simplistic and not consider the impacts on economic efficiency.	To be considered in the preliminary discussion of the basis for allocation of Market Fees.
		In particular, the costs associated with an electricity market reform program should be recovered from entities based on the benefit they receive from the reform. This is expected to increase the visibility of	



ld	Submitter/Date	Issue	Urgency and Status
		(and therefore incentivise) prudence and accountability when it comes to deciding the need and scope of the reform. Recommendations: to review the Market Fees structure including the cost recovery mechanism for a reform program. The cost saving from improved economic efficiency can be passed on to the end consumers, hence promoting the Wholesale Market Objectives.	
29	Kleenheat November 2017	Provide greater clarity on the respective roles and responsibilities for each regulatory body (PUO, Rule Change Panel, ERA and AEMO) as they relate to and impact the operation and application of the Market Rules. Greater clarity is required to ensure no conflicts of interest arise (perceived or real) and the risk of costs as well as duplicated roles and responsibilities is minimised. As an example, the time involved in enforcing the Market Rules, such as the Vinalco investigation - the Market Rules are compromised if their enforcement is not efficient and timely.	To be considered in the preliminary discussion of agency roles and responsibilities.
30	Synergy November 2017	Reserve Capacity Mechanism Synergy would like to propose a review of Market Rules related to reserve capacity requirements and reserve capacity capability criteria to ensure alignment and consistency in determination of certain criteria. For instance: • assessment of reserve capacity requirement criteria, reserve capacity capability and reserve capacity obligations; • IRCR assessment; • Relevant Demand determination; • determination of NTDL status;	To be considered in the preliminary discussion of the Reserve Capacity Mechanism.



ld	Submitter/Date	Issue	Urgency and Status
		 Relevant Level determination; and assessment of thermal generation capacity. The review will support Wholesale Market Objectives (a) and (d). 	
35	ERM Power November 2017	BTM generation and apportionment of Market Fees, ancillary services, etc. The amount of solar PV generation on the system is increasing every year, to the point where solar PV generation is the single biggest unit of generation on the SWIS. This category of generation has a significant impact on the system and we have seen this in terms of the day time trough that is observed on the SWIS when the sun is shining. The issue is that generators that are on are moving around to meet the needs of this generation facility but this generation facility, which could impact system stability, does not pay its fair share of the costs of maintaining the system in a stable manner. That is, they are not the generators that receive its fair apportionment of Market Fees and pay any ancillary service costs but yet they have absolute freedom to generate into the SWIS when the fuel source is available. There needs to be equity in this equation.	To be considered in the preliminary discussions of behind-the-meter issues and the basis for allocation of Market Fees.
39	Alinta Energy November 2017	Commissioning Test Process The commissioning process within the Market Rules and PSOP works well for known events (i.e. the advance timings of tests). However the Market Rules and PSOP do not work for close to real time events. There is limited flexibility in the Market Rules and PSOP to deal with the practical and operational realities of commissioning facilities. The Market Rules and PSOP require System Management to approve a Commissioning Test Plan or a revised Commissioning Test Plan by	To be considered in the preliminary discussion of the Commissioning Tests.



ld	Submitter/Date	Issue	Urgency and Status
		8:00 AM on the Scheduling Day on which the Commissioning Test Plan would apply.	
		If a Market Participant cannot conform to its most recently approved Commissioning Test Plan, the Market Participant must notify System Management; and either:	
		withdraw the Commissioning Test Plan; or	
		if the conditions relate to the ability of the generating Facility to conform to a Commissioning Test Schedule, provide a revised Commissioning Test Plan to System Management as soon as practicable before 8:00 AM on the Scheduling Day prior to the commencement of the Trading Day to which the revised Commissioning Test Plan relates.	
		Specific Issues:	
		This restriction to prior to 8:00 AM on the Scheduling Day means that managing changes to the day of the plan are difficult. Sometimes a participant is unaware at that time that it may not be able to conform to a plan. Amendments to Commissioning Tests and schedules need to be able to be dealt with closer to real time.	
		Examples for improvements are:	
		 allowing participants to manage delays to the start of an approved plan; and 	
		 allowing participants to repeat tests and push the remainder of the Commissioning Test Plan out. 	
		Greater certainty is needed for on the day changes (i.e. there is uncertainty as to what movements/timing changes acceptable within the "Test Window" i.e. on the day).	



Wholesale Market Objective Assessment:

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

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



ld	Submitter/Date	Issue	Urgency and Status
		 Impacts on economic efficiency and efficient entry of new competitors (as outlined above) will potentially lead to the minimisation of the long term cost of electricity supplied. 	

ld	Submitter/Date	Issue	Urgency and Status
Issu	es on Hold		
5	Community Electricity November 2017	Improved definition of SRMC.	On hold pending development of ERA Balancing Market Offer Guidelines.
6	Community Electricity November 2017	Improved definition of Market Power.	On hold pending development of ERA Balancing Market Offer Guidelines.
7	Community Electricity November 2017	Improved definition of the quantity of LFAS (a) required and (b) dispatched.	On hold pending the outcome of the Minister's WEM reform program, with potential input from work on RC_2017_02: Implementation of 30-Minute Balancing Gate Closure.
10	AEMO November 2017	 Review of participant and facility classes to address current and looming issues, such as: incorporation of storage facilities; distinction between non-scheduled and semi-scheduled generating units; reconsideration of potential for Dispatchable Loads in the future (which were proposed for removal in RC_2014_06); whether to retain Interruptible Loads or to move to an aggregated facility approach (like Demand Side Programmes); and whether to retain Intermittent Loads as a registration construct or to convert to a settlement construct. 	On hold pending the outcome of the Minister's WEM reform program.



ld	Submitter/Date	Issue	Urgency and Status
		Would support new entry, competition and market efficiency; particularly supporting the achievement of Wholesale Market Objectives (a) and (b).	
14/36	Bluewaters and ERM Power November 2017	Capacity Refund Arrangements The current capacity refund arrangement is overly punitive as Market Participants face excessive capacity refund exposure. This refund exposure is well more than what is necessary to incentivise the Market Participants to meet their obligations for making capacity available. Practical impacts of such excessive refund exposure include: • compromising the business viability of some capacity providers - the resulting business interruption can compromise reliability and security of the power system in the SWIS; and • excessive insurance premiums and cost for meeting prudential support requirements. Bluewaters recommended imposing seasonal, monthly and/or daily caps on the capacity refund. Bluewaters considered that reviewing capacity refund arrangements and reducing the excessive refund exposure is likely to promote the Wholesale Market Objectives by minimising: • unnecessary business interruption to capacity providers and in turn minimising disruption to supply availability; which is expected to promote power system reliability and security; and • unnecessary excessive insurance premium and prudential support costs, the saving of which can be passed on to consumers.	On 9 May 2018 the MAC agreed to place this issue on hold for 12 months (until 9 May 2019) to allow time for historical data on dynamic refund rates to accumulate.
15/34	Bluewaters and ERM Power November 2017	An interpretation of clause 3.18.7 of the Market Rules is that System Management will not approve a Planned Outage for a generator unless it was available at the time the relevant Outage Plan was submitted. This gives rise to the following issues:	On hold pending a final decision on RC_2013_15: Outage Planning Phase 2 – Outage Process Refinements



ld	Submitter/Date	Issue	Urgency and Status
		Operational inefficiency for the generators – it is not uncommon for minor problems to be discovered during a Planned Outage, and addressing these problems may require the Planned Outage period to be marginally extended (by submitting an additional Outage Plan). However, System Management has taken an interpretation of clause 3.18.7 that it is not allowed to approve the Planned Outage period extension because the relevant generator was not available at the time the extension application was submitted. To meet this rules requirement, the generator will need to bring the unit online, apply for a Planned Outage while the unit is online, and subsequently take the unit off-line again only to address the minor problems. Such operational inefficiency could have been avoided if System Management can approve such Planned Outage extension (as long as there is sufficient reserve margin available in the power system during the extended Planned Outage period).	
		Driving perverse incentives in the WEM and compromising market efficiency – to get around the issue discussed above, generators are likely to overestimate their Planned Outage period requirements in their outage applications. This results in higher than necessary projected plant unavailability, which does not promote accurate price signals for guiding trading decisions. This misinformation is expected to lead to an inefficient outcome which in turn does not promote the Wholesale Market Objectives. Bluewaters recommendation: clarify in the Market Rules so that System Management can approve a Planned Outage extension application.	
17	Bluewaters November 2017	Under clause 3.21.7 of the Market Rules, a Market Participant is not allowed to retrospectively log a Forced Outage after the 15 day	On hold pending a final decision on RC_2014_03: Administrative Improvements to the Outage Process.



ld	Submitter/Date	Issue	Urgency and Status
		deadline; even if the Market Participant is subsequently found to be in breach of the Market Rules for not logging the Forced Outage on time. This can result in under reporting of Forced Outages, and as a consequence, use of incorrect information used in WEM settlements. Bluewaters recommend a rule change to enable Market Participants to retrospectively log a Forced Outage after the 15 day deadline. If a Market Participant is found to be in breach of the Market Rules by not logging the Forced Outage by the deadline, it should be required to log the outage. Accurately reporting outages will enable the WEM to function as intended and will help meet the Wholesale Market Objectives.	
18	Bluewaters November 2017	The Spinning Reserve procurement process does not allow Market Participants to respond to the draft margin values determination by altering its Spinning Reserve offer. Bluewaters recommended amending the Market Rules to allow Market Participants to respond to the draft margin values determination by altering its Spinning Reserve offer. Allowing a Market Participant to respond to the draft margin values determination, can serve as a price signal to enable a price discovery process for Spinning Reserve capacity. This is expected to lead to a more efficient economic outcome and in turn promote the Wholesale Market Objectives.	On hold pending the outcomes of the ancillary services review being undertaken as part of the Minister's WEM reform program.
19	Bluewaters November 2017	The Spinning Reserve margin values evaluation process is deficient for the following reasons: • shortcomings in the process for reviewing assumptions; • inability to shape load profile;	On hold pending the outcome of the Minister's WEM reform program. Also, AEMO and the ERA to consider whether any options exist to improve transparency of the current margin values process.



ld	Submitter/Date	Issue	Urgency and Status
		 lack of transparency: (a) modelling was a "black box"; (b) confidential information limits stakeholders' ability to query the results; and lack to retrospective evaluation of spinning reserve margin values. As a result, the margin values have been volatile, potentially inaccurate and not verifiable. Recommendation: conduct a review on the margin values evaluation process and propose rule changes to address any identified deficiencies. Addressing the deficiencies in the margin values evaluation process can promote the Wholesale Market Objectives by enhancing economic efficiency in the WEM. This can be achieved through: promoting transparency – better informed Market Participants would be able to better respond to Spinning Reserve requirement in the WEM; and allowing a better informed margin values determination process, 	
		which is likely to give a more accurately priced margin values to promote an efficient economic outcome.	
22	Bluewaters November 2017	Prudential arrangement design issue: clause 2.37.2 of the Market Rules enables AEMO to review and revise a Market Participant's Credit Limit at any time. It is expected that AEMO will review and increase Credit Limit of a Market Participant if AEMO considers its credit exposure has increased (for example, due to an extended plant outage event). In response to the increase in its credit exposure, clause 2.40.1 of the	On hold pending AEMO's proposed review of its process for Credit Limit determination.
		Market Rules and section 5.2 of the Prudential Procedure allow the Market Participant to make a voluntary prepayment to reduce its	



ld	Submitter/Date	Issue	Urgency and Status
		Outstanding Amount to a level below its Trading Limit (87% of the Credit Limit). Under the current Market Rules and Prudential Procedure, AEMO can increase the Market Participant's Credit Limit (hence increasing its prudential support requirement) despite that a prepayment has already been paid (it is understood that this is AEMO's current practice).	
		The prepayment would have already served as an effective means to reduce the Market Participant's credit exposure to an acceptable level. Increasing the Credit Limit in addition to this prepayment would be an unnecessary duplication of prudential requirement in the WEM.	
		This unnecessary duplication is likely to give rise to higher-than- necessary prudential cost burden in the WEM; which creates economic inefficiency that is ultimately passed on the end consumers.	
		Recommendation: amend the Market Rules and/or procedures to eliminate the duplication of prudential burden on Market Participants.	
		The resulting saving from eliminating this unnecessary prudential burden can be passed on to end consumers. This promotes economic efficiency and therefore the Wholesale Market Objectives.	
27	Kleenheat November 2017	Review what should constitute a Protected Provision of the Market Rules, to provide greater clarity over the role of the Minister for Energy.	On hold pending the outcome of a PUO review of the current Protected Provisions in the Market Rules.
28	Kleenheat November 2017	Appropriate rule changes to allow for battery storage. Consultation to decide how the batteries will be treated and classified as generators or not, whether batteries can apply for Capacity Credits and the availability status when the batteries are charging.	On hold pending the outcomes of the Minister's WEM reform program.



ld	Submitter/Date	Issue	Urgency and Status
33	ERM Power November 2017	Logging of Forced Outages The market systems do not currently allow Forced Outages to be amended once entered. This can have the distortionary effect of participants not logging an Outage until it has absolute certainty that the Forced Outage is correct, hence participants could take up to 15 days to submit its Forced Outages. If a participant could cancel or amend its Forced Outage information, it will likely provide more accurate and transparent signals to the market of what capacity is really available to the system. This should also assist System Management in generation planning for the system.	On hold pending a final decision on RC_2014_03: Administrative Improvements to the Outage Process.
41	IMO November 2017	On 1 September 2017, the Electricity Review Board (Board) published its decision and its reasons for decision regarding the IMO's Application No. 1 of 2016 against Vinalco Energy Pty Ltd (Vinalco) (http://www.edawa.com.au/reviews/12016). Even though the Board found that Vinalco breached clause 7A.2.17 of the Market Rules during the relevant periods and ordered Vinalco to pay two nominal penalties, the Board was sympathetic to the argument that 'constrained-on' dispatch through the Balancing Market was not the most appropriate mechanism in Vinalco's circumstances. The IMO considers that further work is required to consider what changes are required to the Market Rules to mitigate the risk of a similar situation arising again, and what the next steps may be to progress those changes.	On hold pending development of ERA Balancing Market Offer Guidelines
42	ERA November 2017	Ancillary Services approvals process Clause 3.11.6 of the Market Rules requires System Management to submit the Ancillary Services Requirements in a report to the ERA for audit and approval by 1 June each year, and System Management	On hold pending the outcome of the Minister's WEM reform program.



ld	Submitter/Date	Issue	Urgency and Status
		must publish the report by 1 July each year. The ERA conducted this process for the first time in 2016/17. In carrying out the process it became apparent that:	
		 there is no guidance in the rules on what the ERA's audit should cover, or what factors the ERA should consider in making its determination on the requirements; 	
		 there are no documented Market Procedures setting out the methodology for System Management to determine the ancillary service requirements (the preferable approach would be for the methodologies to be documented in a Market Procedure, and for the ERA to audit whether System Management has followed the procedure); 	
		 the timeframe for the ERA's audit and approval process (less than 1 month) limits the scope of what it can achieve in its audit; 	
		 the levels determined by System Management are a function of the Ancillary Service standards, but the standards themselves are not subject to approval in this process; and 	
		 the value of the audit and approval process is limited because System Management has discretion in real time to vary the levels from the set requirements. 	
		The question is whether the market thinks this approvals process is necessary/will continue to be necessary (particularly in light of co-optimised energy and ancillary services). If so, then the issues above will need to be addressed, to reduce administrative inefficiencies and, if more rigour is added to the process, provide economic benefits (Wholesale Market Objectives (a) and (d)).	





Agenda Item 10(c): Roles in the Market

Meeting 2018_06_13

1. Background

Following from the discussion of the Market Rules Issues List – Roles in the Market (Attachment 1) at the Market Advisory Committee (**MAC**) meeting on 9 May 2018, the Public Utilities Office (**PUO**) has reviewed the issues submitted by Market Participants and identified the issues covered by the Wholesale Electricity Market (**WEM**) Reform Programme.¹

2. Discussion

The remaining issues not covered by the WEM Reform Programme are detailed in the table below. RCP Support proposes to address each issue as follows:

- Is the issue sufficiently defined and understood?
 If not, the submitter will be asked to elaborate further.
- (2) Is the issue outside the scope of the Market Rules?

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

In accordance with Agenda Item 10(a) – process to manage the Issues List, all issues must consider:

- (3) Can a Rule Change Proposal be developed to address the issue? If so:
 - (a) what urgency rating would the MAC recommend for the proposal; and
 - (b) are any MAC members interested in leading development of the Rule Change Proposal?

These issues will be logged as 'Potential Rule Change Proposals' in the Issues List.

(4) Does the issue require broader review?

These issues will be logged as 'Broader Issues' in the Issues List.

The MAC originally discussed roles in the market under Agenda Item 8(a) at the 9 May 2018 MAC meeting. The paper for Agenda Item 8(a) from 9 May 2018 is attached for the MAC's information – the PUO indicated that the WEM Reform Programme will consider items 3-7, 10-12, 15 and 17-19 from this paper. These items include:

Reliability and security standards;

[•] Role of AEMO as system operator in the connections process;

System planning functions;

[•] Stakeholders other than Western Power to have the ability to propose amendments to the Technical Rules;

[•] Alignment of Technical Rules with the Market Rules and market objectives;

Responsibility for Marginal Loss Factor calculations and developing constraint equations/definitions;

[•] Integration of the Technical Code, Market Rules and PSOPs (Power System Operation Procedures); and

AEMO's roles and responsibilities for regional system reliability with respect to Western Power.

(5) Should this issue go on hold pending some event/occurrence?

These issues will be logged as 'Issues on Hold'. Note that the roles and responsibilities issues raised by submissions that are within the scope of the WEM Reform Programme are automatically 'Issues on Hold'.

Attachment 1: Agenda Item 8(a): Roles in the Market – MAC Meeting 9 May 2018 (for reference).





	Table 1: Issues not covered in the WEM Reform Programme			
No	Submitter	Submission		
1	AEMO	 Responsibility for setting document retention requirements (clauses 10.1.1 and 10.1.2) and confidentiality statuses (clauses 10.2.1 and 10.2.3) AEMO believes this responsibility should move from AEMO to the ERA. AEMO considers that it is not the best entity to hold these responsibilities as it no longer maintains the broader market development and compliance functions of the IMO. 		
2	AEMO	 Market Procedure for conducting the Long Term PASA (clause 4.5.14) The scope of this procedure currently includes describing the process that the ERA must follow in conducting the five-yearly review of the Planning Criterion and demand forecasting process. AEMO considers that its Market Procedure should not cover the ERA's review to provide ERA with scope for independently scoping the review. As such, AEMO recommends that this requirements be removed from the head of power clause within the Market Rule. 		
8	AEMO	AEMO would also note that there is potential for considering new roles and functions such as those related to Distribution System operation and microgrids and would equally look to the PUO to draw together thinking on this as part of holistic policy planning.		
9	Community Electricity	Agencies should be empowered, resourced and required to initiate and pursue any rule change they think proper.		

	Table 1: Issues not covered in the WEM Reform Programme		
No	Submitter	Submission	
13	Perth Energy	The MAC recently asked for Market Participants to put forward proposed rule changes and order these into a priority list. This was a positive move but Perth Energy suggests that this approach should go further through development of a roadmap, or maps, for possible market development options. Market Rules can be considered as solutions but what we also need is a consolidated set of questions that are being identified. For example, System Management has recently indicated its concerns about grid stability due to the high level of renewables. At the PUO briefing the modeller from EY noted that in 10 years' time exports from behind-the-meter solar will exceed system demand. Another issue is that there are no rules covering energy storage. These types of issues need to be addressed in an integrated manner where the full ramifications of each issue are, as far as possible, identified and resolved.	
		Perth Energy has, separately, recommended to the ERA that their market reviews could the vehicle to collate and describe the various issues that market participants foresee. However, there would still need to be a mechanism to coordinate the development of solutions.	
		It could be argued that it is the Government's role to look at these matters and develop solutions but, in practice, the market "belongs" to all of the market participants as well as to its ultimate customers. Certainly Government has a very significant role to play as a major business owner, in determining the industry structure and in authorising regulation. However, it is unrealistic to expect Government to be able to identify either all of the questions or all of the solutions. It could also be suggested that it is conflicted through ownership of so much of the market.	
		Perth Energy considers that the Rule Change Panel, with the support of MAC, should be given the responsibility to identify the issues facing the market over the coming, say, 3-5-10 years and develop potential road maps for required changes. It is expected that this would flag up some changes that will be required in almost all future scenarios (new definitions of ancillary services, perhaps) plus identify options depending on different technology or policy futures.	
		We suggest the Rule Change Panel for this role because this entity has the support of the MAC which represents a very broad range of industry, Government entities and customers. To this end we support the current policy of encouraging observers/visitors to attend and participate in MAC.	



	Table 1: Issues not covered in the WEM Reform Programme		
No	Submitter	Submission	
14	Western Power	Grid Transformation The emergence of microgrids and associated technologies in Western Australia, and the potential role they may have in the supply of affordable, secure, reliable and sustainable energy should be considered by the Government agencies and Market Participants. Grid transformation will impact the WEM and to accommodate the changes that will occur, discussions between the Government agencies and Market Participants will need to continue. An opportunity exists for the PUO to continue providing leadership on the matter and assist in facilitating these discussions. Consideration should also be given on Western Power's role as the Network Operator in the SWIS, and whether its role and responsibilities need to evolve with the transformation of the grid.	
16	Western Power	Agility to respond to market reform drivers There is an increasing need for the WEM Rules and Market Procedures change process to adapt and reflect the current market developments in a timely manner. In particular, the AEMO current process to amend its Market Procedures requires substantial consultation and time. It would be beneficial for the AEMO to adopt a more streamlined procedure change process to ensure that the Market Procedures keep up with market developments and practices. For example, a process similar to the fast track rule change process for the WEM Rules which would allow it to expedite certain Market Procedure amendments.	
20	Western Power	Western Power is also of the view that its role and responsibilities as the Network Operator should be considered to allow it to take a role in grid transformation.	



Agenda Item 8(a): Roles in the Market

Meeting 2018_05_09

1. Background

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

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

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

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

2. Submissions

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

3. Previously identified issues

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

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

4. Discussion

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

- (1) Is the issue sufficiently defined and understood?
- (2) Is the issue outside the scope of the Market Rules?If so, then RCP Support suggests that the issue should be deleted from the list.
- (3) Can a Rule Change Proposal be developed to address the issue? If so:
 - (a) does the potential rule change overlap with the PUO's current reform package;
 - (b) what urgency rating would the MAC recommend for the proposal; and
 - (c) are any MAC members interested in leading development of the Rule Change Proposal?

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

(4) Does the issue require broader review?

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



	Table 1: Submissions		
No	Submitter	Submission	
1	AEMO	 Responsibility for setting document retention requirements (clauses 10.1.1 and 10.1.2) and confidentiality statuses (clauses 10.2.1 and 10.2.3) AEMO believes this responsibility should move from AEMO to the ERA. AEMO considers that it is not the best entity to hold these responsibilities as it no longer maintains the broader market development and compliance functions of the IMO. 	
2	AEMO	 Market Procedure for conducting the Long Term PASA (clause 4.5.14) The scope of this procedure currently includes describing the process that the ERA must follow in conducting the five-yearly review of the Planning Criterion and demand forecasting process. AEMO considers that its Market Procedure should not cover the ERA's review to provide ERA with scope for independently scoping the review. As such, AEMO recommends that this requirements be removed from the head of power clause within the Market Rule. 	
3	AEMO	Clarifying reliability and security standards and assigning responsibility for satisfying these, as well as for ongoing review of the appropriateness of the standards.	
4	AEMO	The role of AEMO (as the system operator) in the connections process and establishment/monitoring of performance standards.	
5	AEMO	The need for a system planning function, similar to that recommended in the Finkel Review and being developed through the Integrated System Plan in the NEM.	
6	AEMO	The ability for stakeholders other than Western Power to propose amendments to the Technical Rules.	
7	AEMO	Transitional and enduring responsibility for calculating Marginal Loss Factors and developing constraint equations/definitions.	
8	AEMO	AEMO would also note that there is potential for considering new roles and functions such as those related to Distribution System operation and microgrids and would equally look to the PUO to draw together thinking on this as part of holistic policy planning.	
9	Community Electricity	Agencies should be empowered, resourced and required to initiate and pursue any rule change they think proper.	



	Table 1: Submissions		
No	Submitter	Submission	
10	Community Electricity	The interplay of the Technical Code, Market Rules and PSOPs should be properly integrated and managed.	
11	Community Electricity	The role of System Planning should expressly be provided for and managed by an entity to which Western Power, AEMO, the ERA and interested parties provide non-binding recommendations for its consideration. I perceive that this entity would properly have responsibility for defining and resolving all system planning issues, including generation mix, DSM, emissions, ancillary services, and network congestion & local solutions. Regarding its role in generation mix and alleviating congestion, I perceive that the likely outcomes of EMR phase 2 will require a stronger degree of central planning of new generation developments as the 'hidden hand" of the market won't be able to optimally respond to the prospective complexity and uncertainty. Or rather, that the response of the hidden hand will be to build nothing new until the capacity price rises sufficiently to develop small diesel peakers with short paybacks returning to the problem we started with.	
12	Perth Energy	The technical rules are currently held by Western Power with approval for any changes being considered by the ERA. When the electricity industry was virtually fully integrated through SECWA or the original Western Power it was logical that custody of the technical rules should be with the networks arm of the business. The rules were largely there to safeguard the technical integrity of the network. Also, being an integrated industry the interests of other parts of the business, such as generators, could be taken into account through internal discussion. At that time, too, technical developments in areas such as gas turbines was relatively slow and renewables were generally only experimental. We are now in an environment where the technical rules directly affect the activities of many market participants. Technology developments are also progressing much more quickly in areas such as renewable energy, batteries and advanced gas turbines. Perth Energy considers that parts of the technical rules, potentially all of them, should be rolled into the Market Rules to ensure that: • The technical rules and Market Rules are aligned • The technical rules support the overall market objectives • All market participants will gain a better understanding of the technical rules • The interests of all market participants are fully considered within the technical rules	



Table 1: Submissions		
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		Perth Energy considers that this should be undertaken alongside the significant other network administrative changes (AQP, DSOC, etc.) that will be required in the change to constrained network access.
13	Perth Energy	The MAC recently asked for Market Participants to put forward proposed rule changes and order these into a priority list. This was a positive move but Perth Energy suggests that this approach should go further through development of a roadmap, or maps, for possible market development options. Market Rules can be considered as solutions but what we also need is a consolidated set of questions that are being identified. For example, System Management has recently indicated its concerns about grid stability due to the high level of renewables. At the PUO briefing the modeller from EY noted that in 10 years' time exports from behind-the-meter solar will exceed system demand. Another issue is that there are no rules covering energy storage. These types of issues need to be addressed in an integrated manner where the full ramifications of each issue are, as far as possible, identified and resolved.
		Perth Energy has, separately, recommended to the ERA that their market reviews could the vehicle to collate and describe the various issues that market participants foresee. However, there would still need to be a mechanism to coordinate the development of solutions.
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No	Submitter	Submission	
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15	Western Power	Reliability in the SWIS Under clause 2.2.1 of the WEM Rules, System Management's main function is to ensure that the SWIS operates in a secure and reliable manner. As there is currently no definition of "reliability" and what it entails, it is unclear whether System Management's function also involves ensuring customer reliability of supply during network outages. There is a need to differentiate between the network reliability requirements and system security and reliability requirements. Should the two requirements be differentiated, there will be a need to clearly define the roles that System Management (as System Operator) and Western Power (as Network Operator) will have in ensuring that each reliability requirement is met.	
16	Western Power	Agility to respond to market reform drivers There is an increasing need for the WEM Rules and Market Procedures change process to adapt and reflect the current market developments in a timely manner. In particular, the AEMO current process to amend its Market Procedures requires substantial consultation and time. It would be beneficial for the AEMO to adopt a more streamlined procedure change process to ensure that the Market Procedures keep up with market developments and practices. For example, a process similar to the fast track rule change process for the WEM Rules which would allow it to expedite certain Market Procedure amendments.	
17	Western Power	AEMO's role and responsibilities regarding the regional system reliability to ensure clear division of responsibilities between Western Power and AEMO.	



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

