



## Meeting Agenda

<b>Meeting Title:</b>	Market Advisory Committee
<b>Date:</b>	Tuesday 2 November 2021
<b>Time:</b>	9:30 AM – 11:15 AM
<b>Location:</b>	<p>Level 1, 66 St. Georges Terrace (MAC members and statutory observers only)</p> <p>Observers who would like to attend the meeting are to seek approval from the Chair by noon on Friday 29 October 2021 by email to <a href="mailto:energymarkets@energy.wa.gov.au">energymarkets@energy.wa.gov.au</a>.</p> <p>Approved observers will be sent an invitation to attend the meeting online by COB on Monday 1 November 2021.</p>

Item	Item	Responsibility	Type	Duration
1	Welcome and Agenda	Chair	Noting	3 min
2	Meeting Apologies/Attendance	Chair	Noting	2 min
3	Minutes of Meeting 2021_09_21	Chair	Decision	5 min
4	Action Items	Chair	Discussion	5 min
5	Market Development Forward Work Program	Chair/Secretariat	Discussion	5 min
6	Update on Working Groups			
	(a) AEMO Procedure Change Working Group	AEMO	Discussion	5 min
7	Rule Changes			
	(a) Overview of Rule Change Proposals	Chair/Secretariat	Noting	5 min
8	Approval of the Terms of Reference for the Reserve Capacity Mechanism Review Working Group	Chair	Decision	10 min
9	Scope of Works for the Cost Allocation Review	Chair/Secretariat	Discussion	30 min
10	Use of Flexible Loads to address Low Load Issues in the SWIS	Noel Schubert	Discussion	30 min

Item	Item	Responsibility	Type	Duration
11	General Business	Chair	Discussion	5 min
	Next meeting: 14 December 2021			

Please note, this meeting will be recorded.



## Minutes

<b>Meeting Title:</b>	Market Advisory Committee ( <b>MAC</b> )
<b>Date:</b>	21 September 2021
<b>Time:</b>	9:30am – 11:25am
<b>Location:</b>	Level 1, 66 St Georges Terrace, Perth

Attendees	Class	Comment <sup>1</sup>
Peter Kolf	Chair	
Martin Maticka	Australian Energy Market Operator ( <b>AEMO</b> )	(VC)
Dean Sharafi	AEMO	
Zahra Jabiri	Network Operator	(VC)
Jo-Anne Chan	Synergy	(VC)
Paul Keay	Small-Use Consumer	
Noel Schubert	Small-Use Consumer	
Geoff Gaston	Market Customer	
Timothy Edwards	Market Customer	
Patrick Peake	Market Customer	
Daniel Kurz	Market Generator	
Wendy Ng	Market Generator	
Jacinda Papps	Market Generator	
Tom Frood	Market Generator	(VC) from 9:45am
Peter Huxtable	Contestable Customer	
Noel Ryan	Observer appointed by the Minister	to 10:35am
Rajat Sarawat	Economic Regulation Authority ( <b>ERA</b> ) observer	(VC)

Also in Attendance	From	Comment
Kate Ryan	Coordinator of Energy ( <b>Coordinator</b> )	Observer to 10:35am

<sup>1</sup> (VC) indicates attendance via videoconference

Also in Attendance	From	Comment
Dora Guzeleva	MAC Secretariat	
Laura Koziol	MAC Secretariat	Minutes
Teresa Smit	AEMO	Presenter (VC)
Nathan Kirby	Western Power	Presenter (VC) to 10:35am
Stephen Eliot	MAC Secretariat	Observer (VC)
Jenny Laidlaw	MAC Secretariat	Observer (VC)
Erin Stone	Point Global	Observer (VC)
Rebecca White	Collgar Wind Farm	Observer (VC)
Claire Richards	Enel X	Observer (VC) to 11:00am
Graham Pearson	Australian Energy Council	Observer (VC)

Apologies	From	Comment
None		

Item	Subject	Action
<b>1</b>	<p><b>Welcome</b></p> <p>The Chair opened the meeting at 9:30am with an Acknowledgement of Country and welcomed members and observers to the 21 September 2021 MAC meeting.</p> <p>The Chair noted that he had no conflicts of interest but had:</p> <ul style="list-style-type: none"> <li>met with Mr Martin Maticka and Mr Dean Sharifi from AEMO; and</li> <li>spoken with Ms Rebecca White from Collgar Wind Farm by telephone.</li> </ul>	
<b>2</b>	<p><b>Meeting Apologies/Attendance</b></p> <p>The Chair noted the attendance as listed above. The Chair noted that Mr Rajat Sarawat was replacing Ms Sara O'Connor as the ERA observer from this meeting forward.</p>	
<b>3</b>	<p><b>Minutes of Meeting 2021_08_10</b></p> <p>Draft minutes of the MAC meeting held on 10 August 2021 were circulated on 23 August 2021. The Chair noted that a revised draft showing some changes was distributed in the meeting papers.</p> <p>The MAC accepted the revised minutes as a true and accurate record of the meeting.</p>	

Item	Subject	Action
	<b>Action: MAC Secretariat to publish the minutes of the 10 August 2021 MAC meeting on the Coordinator’s Website as final.</b>	<b>MAC Secretariat</b>
<b>4</b>	<p><b>Action Items</b></p> <p>The closed action items were taken as read.</p> <p><u>Action item 5/2021</u></p> <p>The Chair suggested that Sustainable Energy Now (<b>SEN</b>) should be contacted about whether it intended to submit a description of its proposed emissions-related amendment to the WEM Rules for discussion at a MAC meeting.</p> <p>Mr Timothy Edwards suggested that the MAC close the action item if SEN did not provide a submission for discussion at the next MAC meeting. The MAC agreed to this suggested approach.</p> <p><b>Action: MAC Secretariat to contact SEN to request a response on Action Item 5/2021, noting that the MAC intends to close the action item if SEN does not provide a submission for discussion in time for the 2 November 2021 MAC meeting.</b></p>	<b>MAC Secretariat</b>
<b>5</b>	<p><b>SWIS Power System, A View from the Cockpit</b></p> <p>Mr Sharafi provided a presentation about emerging system security risks in the SWIS. A copy of AEMO’s presentation is available in the meeting papers.</p> <p>The following key points were discussed:</p> <ul style="list-style-type: none"> <li>Mr Tom Frood asked how AEMO was factoring in the contribution of batteries to grid stability. <p>Mr Sharafi answered that batteries can provide grid stability through fast frequency response and that this would be most effective if the battery was controlled by the system operator. Mr Sharafi noted that the current and projected requirements of the system to ensure grid stability still needed to be determined.</p> </li> <li>Mrs Jacinda Papps asked if AEMO was proposing to implement dynamic linear ramping for Intermittent Generators and cautioned, based on recent experience in the National Electricity Market (<b>NEM</b>), that it can take a long time to prepare older Facilities to comply with dynamic linear ramping requirements. <p>Mr Sharafi clarified that AEMO was not suggesting a specific requirement but was pointing to the problem caused by sudden ramping of large Intermittent Generators. Mr Sharafi suggested that it would be good to think about ways to make these sudden changes more manageable and noted that co-locating Electric Storage Resources and Intermittent Generators could achieve this.</p> </li> </ul>	

Item	Subject	Action
	<ul style="list-style-type: none"> <li data-bbox="320 255 1197 1400"> <p>Mr Geoff Gaston noted that the volatility of generation from Intermittent Generators was not only a problem for system security but also affected the Balancing Price.</p> <p>Mr Gaston suggested that there were many instances where Non-Scheduled Generators generate less than the quantity in their Balancing Submissions because of the Balancing Price and not resource availability (such as the wind), and that such behaviour should not be permitted. Mr Gaston also considered that an Intermittent Generator should not be allowed to generate above the forecast quantity specified in its Balancing Submission.</p> <p>Mrs Papps noted that semi-dispatch caps were used in the NEM to restrict Semi-Scheduled Generators to their bid quantities, but these caps were not always in operation.</p> <p>Mr Sharafi noted that the two sources of Intermittent Generator volatility are bidding behavior, which he considered to be manageable, and the availability of fuel sources such as wind. Mr Sharafi noted that historically it had been accepted that Intermittent Generators generate less than the quantity in their Balancing Submissions due to lower than expected resource availability (e.g. because of a drop in wind). However, Mr Sharafi considered that the WEM was reaching a point where it could no longer be managed in this way.</p> <p>Mrs Papps noted that the observed reductions in Intermittent Generator output could be driven by Generator Interim Access (<b>GIA</b>) constraints instead of the price.</p> <p>Mr Patrick Peake suggested that it may be preferable for some wind farms to reduce their output during periods of low demand, because this would mitigate the associated system security issues.</p> </li> <li data-bbox="320 1420 1197 1912"> <p>Ms Wendy Ng asked to what extent the implementation of the new market structure would address the issues caused by the volatility of Intermittent Generators.</p> <p>Mr Sharafi answered that the reforms addressed the issue through the new framework for Essential System Services, but only to a limited extent.</p> <p>Mr Sharafi supported the approach used in the PJM market whereby Intermittent Generators are not allowed to generate above their submission quantity and must pay the cost of Essential System Services for any quantity generated below the submitted quantity. Mr Sharafi noted that the WEM was only able to manage the volatility of intermittent generation by procuring large quantities of Essential System Services.</p> </li> <li data-bbox="320 1933 1197 1991"> <p>Mr Gaston asked how many residential solar systems AEMO would need to control to make a difference to the system</p> </li> </ul>	

Item	Subject	Action
	<p>security issues caused by Distributed Energy Resources (DER).</p> <p>Mr Sharafi noted that from December 2021 onwards, any new systems could be controllable <del>by the system operator</del>, but there was already 1.8 GW of installed distribution connected photovoltaic (DPV) system capacity in the SWIS.</p> <p>Mr Gaston queried the value to AEMO of being able to control DPV capacity, considering that existing systems could easily be made controllable if the monetary rewards were higher than the costs.</p> <ul style="list-style-type: none"> <li>Mrs Papps referred to the statement in the presentation that AEMO was rapidly increasing the use of Backup LFAS. Mrs Papps noted that Backup LFAS was more expensive than primary LFAS and asked at what point AEMO would increase the primary LFAS requirements to reduce the use of Backup LFAS.</li> <li>Mr Sharafi noted that primary LFAS always incurred a cost while the cost of Backup LFAS was only there when it was used. The volatility of intermittent generation made it <del>impossible</del> <u>very difficult</u> to predict when the extra LFAS would be needed.</li> <li>Mr Sharafi considered that AEMO would be able to optimise the determination of LFAS quantities much better under the new market arrangements.</li> </ul>	
<b>6</b>	<p><b>Update on Low Load Project</b></p> <p>Mr Noel Ryan, Ms Teresa Smit and Mr Nathan Kirby provided a presentation about the Low Load Project, which is a joint project of Energy Policy WA, AEMO and Western Power. A copy of the presentation is available in the meeting papers.</p> <p>The following key points were discussed:</p> <ul style="list-style-type: none"> <li>Mr Ryan noted that reports and information papers relating to the project are planned to be published in the first quarter of 2022.</li> <li>Mr Noel Schubert noted that the presentations under agenda items 5 and 6 identified DPV as the cause of the low load problems. However, Mr Schubert considered that there were many other causes for the low load situation, such as the current incentive (through tariffs and bilateral contracts) for flexible loads to run at night instead of during the middle of the day.</li> </ul> <p>Mr Peter Huxtable agreed that Water Corporation could shift some of its consumption if there was a financial incentive to do so.</p> <p>Mr Sharafi and Mr Edwards agreed that incentivising loads to shift their consumption could have a material impact. There was some discussion about how loads and Intermittent Loads</p>	

Item	Subject	Action
	<p>could be incentivised to help address the low load issues raised in the presentations.</p> <p>Mr Ryan noted that he expected the recommendations of the Low Load Project would include such incentives for loads and Intermittent Loads.</p> <ul style="list-style-type: none"> <li>Ms Dora Guzeleva noted that the role of loads would also be considered in the Reserve Capacity Mechanism (<b>RCM</b>) Review. Ms Guzeleva and Mr Schubert agreed to meet to discuss the issue and to involve AEMO and Western Power in the discussion as required.</li> <li>Mr Flood suggested that network augmentations could potentially also be used to address some of the problems.</li> </ul> <p>The Chair asked members to provide any other suggestions they had to address the issues raised in the presentations by email. Ms Guzeleva requested that any such emails be addressed to the MAC Secretariat (<a href="mailto:energymarkets@energy.wa.gov.au">energymarkets@energy.wa.gov.au</a>) as well as the Chair.</p>	
	<p><b>Action: MAC Secretariat to meet with Mr Noel Schubert to discuss mechanisms to develop options to increase the role of loads in addressing low load issues.</b></p>	<p><b>MAC Secretariat</b></p>
<p><b>7</b></p>	<p><b>Scope of Works for the Reserve Capacity Mechanism Review</b></p> <p><u>Commencement of the RCM Review and Scope of Works</u></p> <ul style="list-style-type: none"> <li>MAC members and observers endorsed the immediate commencement of the RCM Review. However, Mrs Papps' endorsement was subject to changes to the guiding principles set out in section 2.1 of the draft Scope of Works. Mrs Papps suggested that the guiding principles should be amended to: <ul style="list-style-type: none"> <li>include a comment that the RCM should allow the market to solve issues and not lead to Government intervention; and</li> <li>broaden the second guiding principle ("to enable the transition to an energy market with low greenhouse gas emissions") to cover requirements and incentives for both existing and new Facilities.</li> </ul> </li> </ul> <p>Mr Daniel Kurz and Mr Peake agreed with Mrs Papps' suggestions.</p> <p>Mrs Papps agreed to provide details of her suggested changes to the guiding principles to the MAC Secretariat via email.</p> <ul style="list-style-type: none"> <li>Mrs Papps and Mr Graham Pearson considered that the Energy Price Limits should also be assessed. Ms Guzeleva noted that the Energy Price Limits were already being reviewed as part of the Energy Transformation Strategy (<b>ETS</b>) market power mitigation work stream.</li> </ul>	



Item	Subject	Action
	<ul style="list-style-type: none"> <li>Mr Schubert asked whether the current subsidies for DPV should be reduced.</li> </ul> <p>Mr Gaston noted that most of the subsidies for DPV were set by the Federal Government and therefore out of the State Government's control. Mr Schubert replied that DPV was subsidised by the State Government through the current consumption tariff structure.</p> <p>Mr Schubert also considered that there was insufficient oversight of whether new DPV inverters were actually compliant with the new standards.</p>	
	<ul style="list-style-type: none"> <li>Mr Gaston suggested that the MAC should probably include a representative of the DPV industry.</li> <li>Mr Kurz and Mr Gaston suggested that companies like Infinite Energy and Solar King would be best positioned to reach most of the residential DPV owners about reconfiguring existing inverters if such upgrades were to be incentivised.</li> </ul>	
	<p><u>Putting existing Rule Change Proposals on hold</u></p> <p>The MAC discussed the MAC Secretariat's recommendation to place Rule Change Proposals RC_2019_03 (Method used for the assignment of Certified Reserve Capacity to Intermittent Generators), RC_2019_01 (The Relevant Demand calculation) and RC_2018_03 (Capacity Credit Allocation Methodology for Intermittent Generators) on hold until the RCM Review is substantially complete.</p>	
	<ul style="list-style-type: none"> <li>The following MAC members and statutory observers endorsed putting the three Rule Change Proposals on hold: Mr Maticka, Mr Sharafi, Ms Zahra Jabiri, Mr Paul Keay, Mr Schubert, Mr Gaston, Mr Peake, Mr Kurz, Mr Frood, Mr Huxtable and Mr Sarawat.</li> <li>The following MAC members did not endorse putting RC_2019_03 on hold: Mrs Papps, Mr Edwards and Ms Jo-Anne Chan.</li> <li>Ms White (non-statutory observer) did not support putting RC_2019_03 on hold.</li> <li>Ms Claire Richards from Enel X (non-statutory observer) did not support putting RC_2019_01 on hold.</li> <li>Ms Ng and Mrs Papps requested that if RC_2019_03 was delayed then the commencement of the Network Access Quantity (<b>NAQ</b>) framework should also be delayed.</li> </ul> <p>Ms Guzeleva considered that the Relevant Level Methodology (<b>RLM</b>) would only affect NAQ outcomes in a small number of specific circumstances and offered to hold a separate session to discuss the NAQ framework.</p>	

Item	Subject	Action
	<p>Ms Guzeleva advised that the MAC Secretariat would send out a request for expressions of interest for a session on the NAQ framework and schedule a session accordingly.</p> <ul style="list-style-type: none"> <li>Mr Maticka suggested that the criteria for restarting work on the deferred Rule Change Proposals should be established, to prevent them from remaining on hold indefinitely.</li> <li>Mr Maticka also suggested combining RC_2018_03 with RC_2019_03. Ms Guzeleva noted that each Rule Change Proposal would still need to be progressed in accordance with the rule change process.</li> <li>Mr Sarawat considered that there was a need for a mechanism to account for uncertainty in capacity valuation, which was currently absent for both Scheduled and Intermittent Generators, and delaying RC_2019_03 until this issue was addressed may help produce a more holistic solution.</li> </ul> <p><u>Establishing a MAC Working Group</u></p> <p>All MAC members and observers endorsed the establishment of a Working Group as recommended by the MAC Secretariat. However, Mrs Papps' endorsement was subject to her suggested changes to the draft guiding principles.</p>	
	<p><b>Action: Mrs Jacinda Papps to provide the MAC Secretariat with her suggestions for changes to the guiding principles for the RCM Review.</b></p>	<p><b>Jacinda Papps</b></p>
	<p><b>Action: MAC Secretariat to send out a request for expressions of interest for a session about the NAQ framework and schedule a session accordingly.</b></p>	<p><b>MAC Secretariat</b></p>

## 8 Market Development Forward Work Program

### Issue 22

- Mr Maticka noted that on 16 September 2021 AEMO announced its decision to progress a Procedure Change Proposal to amend the WEM Procedure: Prudential Requirements in response to a request from Change Energy. The Procedure Change Proposal will review the following two requirements under step 2.2.2 of the WEM Procedure:
  - that AEMO must use 24 months of available data when determining a Market Participant's Anticipated Maximum Exposure (**AME**); and
  - that AEMO must determine the AME as the sum of the 70-day maximum Non-STEM Settlement exposure and 15-day maximum STEM Settlement exposure, which may lead to an excess amount of prudential security being held by AEMO.

A workshop to discuss the Procedure Change Proposal would be scheduled for October 2021.

Item	Subject	Action
	<ul style="list-style-type: none"> <li>Mr Gaston considered that it was not yet clear whether AEMO's Procedure Change Proposal would fully address the issue and the issue should not be closed until the conclusion of the Procedure Change Process. Mr Gaston suggested that there may still be benefit in progressing a Rule Change Proposal if there was a quick and easy change available to mitigate the issue during the period before October 2022.</li> </ul> <p>Ms Guzeleva noted that it appeared that any such change would be complex because it would affect other parts of the relevant WEM Rules.</p> <p>Mr Gaston replied that having to provide more prudential security than necessary resulted in high costs for Market Participants and the complexity of the issue should not be a reason for not addressing it. Mr Kurz agreed that Market Participants are incurring high costs due to this issue.</p>	
	<ul style="list-style-type: none"> <li>Mr Gaston considered that it should be clearer after the workshop on the Procedure Change Proposal whether a Rule Change Proposal would be needed.</li> <li>All MAC members and observers agreed that MAC Issue 22 should be kept open.</li> </ul>	
	<p><u>Issue 47</u></p> <ul style="list-style-type: none"> <li>All MAC members and observers agreed that MAC Issue 47 should be closed.</li> </ul>	
	<p><u>Adding new issues</u></p> <ul style="list-style-type: none"> <li>Mr Gaston asked if new items could be added to the Market Development Forward Work Program. Ms Guzeleva replied that the Market Development Forward Work Program would be a standing agenda item from now on and that issues could be added at any MAC meeting.</li> <li>Ms Guzeleva noted that to include an issue for discussion at a MAC meeting, stakeholders should request the inclusion two weeks before the MAC meeting, which was one week before the circulation date for the relevant meeting papers.</li> <li>Mr Gaston noted that he was planning to request a discussion of the issue of disorderly bidding of wind farms for inclusion in the Market Development Forward Work Program at the next MAC meeting.</li> </ul> <p>Ms Guzeleva noted that there are new clauses about dispatch compliance in the WEM Rules, which were gazetted on 24 December 2020 but were still to commence. Ms Guzeleva considered that these clauses should assist in preventing 'disorderly' bidding by Semi-Scheduled Facilities.</p> <p>Ms Guzeleva noted that the MAC Secretariat would email the relevant clauses to MAC members and observers.</p>	

Item	Subject	Action
	<b>Action: MAC Secretariat to send the recently gazetted clauses that address disorderly bidding by Semi-Scheduled Facilities to MAC members and observers for information.</b>	<b>MAC Secretariat</b>
<b>9</b>	<b>Update on Working Groups</b>	
<b>9(a)</b>	<p><b>Update on AEMO Procedure Change Working Group (APCWG)</b></p> <p>Mr Maticka provided an update on the APCWG. Mr Maticka noted that, as discussed under agenda item 8, since the circulation of the MAC papers AEMO had announced its decision to progress a Procedure Change Proposal to address Issue 22 in response to a request from Change Energy.</p>	
<b>10</b>	<b>Rule Changes</b>	
<b>10(a)</b>	<p><b>Overview of Rule Change Proposals</b></p> <p>The MAC noted the update on the current Rule Change Proposals. Ms Guzeleva provided the following update on the ETS Tranche 4B Amending Rules:</p> <ul style="list-style-type: none"> <li>• the Amending Rules had been submitted to the Minister for approval;</li> <li>• the Amending Rules were expected to be gazetted before 1 October 2021; and</li> <li>• some parts of the Amending Rules were proposed to commence on 1 October 2021.</li> </ul> <p>Ms Guzeleva noted that the companion version of the WEM Rules would be updated to reflect the Tranche 4B changes in the near future.</p>	
<b>11</b>	<p><b>Approval of Changes to the Terms of Reference for the AEMO Procedure Change Working Group</b></p> <p>The MAC approved the revised Terms of Reference for the APCWG.</p>	
<b>12</b>	<p><b>General Business</b></p> <p><u>LFAS</u></p> <p>Mr Schubert noted that only a small number of generators participate in the LFAS Market. Mr Schubert suggested that a requirement could be implemented in very volatile situations for generators with the relevant capability to make a percentage of their capacity (e.g. 3%) available to provide LFAS.</p> <p>Mr Sharafi noted that the introduction of co-optimised energy and Essential System Services dispatch should increase the levels of participation <del>in LFAS</del>.</p> <p><u>Circulation of MAC meeting papers</u></p> <p>Mrs Papps asked if MAC meeting papers could be distributed by email and not only as an attachment to the meeting invitation.</p>	

Item	Subject	Action
	Ms Guzeleva agreed that the MAC Secretariat will send out an email with the MAC meeting papers in the future.	
	<b>Action: MAC Secretariat to modify its internal processes to send MAC meeting papers to members and statutory observers both as an attachment to the meeting invitation and via a separate email.</b>	<b>MAC Secretariat</b>

The meeting closed at 11:25am.

## Agenda Item 4: MAC Action Items

Market Advisory Committee (**MAC**) Meeting 2021\_11\_02

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
5/2021	Sustainable Energy Now ( <b>SEN</b> ) to provide a description of its proposed emissions-related amendment to the WEM Rules for discussion by the MAC and potential inclusion on the Issues List.	SEN	2021_04_27	<b>Closed</b> On 26 October 2021, Mr Ian Porter advised the MAC Secretariat that SEN intends to seek a rule change to cause the emissions from all power stations on the South West Interconnected System to be reported on a quarterly basis.
10/2021	MAC Secretariat to publish the minutes of the 10 August 2021 MAC meeting on the Coordinator's Website as final.	MAC Secretariat	2021_09_21	<b>Closed</b> The minutes were published on the Coordinator's Website on 24 September 2021.

Item	Action	Responsibility	Meeting Arising	Status
11/2021	MAC Secretariat to contact SEN to request a response on Action Item 5/2021, noting that the MAC intends to close the action item if SEN does not provide a submission for discussion in time for the 2 November 2021 MAC meeting.	MAC Secretariat	2021_09_21	<b>Closed</b> The MAC Secretariat contacted SEN by email on 21 September 2021, seeking a response from SEN on Action Item 5/2021 by 25 October 2021.
12/2021	MAC Secretariat to meet with Mr Noel Schubert to discuss mechanisms to develop options to increase the role of loads in addressing low load issues.	MAC Secretariat	2021_09_21	<b>Open</b> The MAC Secretariat met with Mr Schubert and Mr Dean Sharafi on 14 October 2021. Mr Schubert agreed to lead a MAC discussion on the use of flexible loads to address low load issues in the SWIS (Agenda Item 10 of this meeting).
13/2021	Mrs Jacinda Papps to provide the MAC Secretariat with her suggestions for changes to the guiding principles for the Reserve Capacity Mechanism (RCM) Review.	MAC Secretariat	2021_09_21	<b>Closed</b> Mrs Papps provided comments to the MAC Secretariat on 21 September 2021. The Coordinator has approved an amended Scope of Works that incorporates changes proposed by Mrs Papps.  A copy of the final Scope of Works is attached at Agenda Item 8 (Approval of the Terms of Reference for the RCM Review Working Group) and will be published on the Coordinator's Website once the Working Group is formed.

Item	Action	Responsibility	Meeting Arising	Status
14/2021	MAC Secretariat to send out a request for expressions of interest for a session about the Network Access Quantity ( <b>NAQ</b> ) framework and schedule a session accordingly.	MAC Secretariat	2021_09_21	<b>Closed</b> The MAC Secretariat sent out a request for expressions of interest on 21 September 2021 and subsequently held the information session on 5 October 2021.
15/2021	MAC Secretariat to send the recently Gazetted clauses that address disorderly bidding by Semi-Scheduled Facilities to MAC members and observers for information.	MAC Secretariat	2021_09_21	<b>Closed</b> The MAC Secretariat sent the clauses to MAC members and observers by email on 21 September 2021.
16/2021	MAC Secretariat to modify its internal process to send MAC meeting papers to members and statutory observers both as an attachment to the meeting invitation and via a separate email	MAC Secretariat	2021_09_21	<b>Closed</b> The MAC Secretariat has modified its internal procedures as requested.





## Agenda Item 5: Market Development Forward Work Program

Market Advisory Committee (**MAC**) Meeting 2021\_11\_02

The Market Development Forward Work Program is provided in Table 1.

In addition:

- Table 2 lists the issues to be considered in the review of the Reserve Capacity Mechanism (**RCM Review**);
- Table 3 lists the issues to be considered in the review of the allocation of Market Fees and Essential System Services (**ESS**) costs (**Cost Allocation Review**); and
- Table 4 lists other issues to be addressed via the Market Development Forward Work Program.

Stakeholders may raise issues for consideration by the MAC at any time by sending an email to the MAC Secretariat at [energymarkets@energy.wa.gov.au](mailto:energymarkets@energy.wa.gov.au). Stakeholders should submit issues for consideration by the MAC two weeks before a MAC meeting so that the MAC Secretariat can include the issue in the papers for the MAC meeting, which are circulated one week before the meeting.

### Recommendation

The MAC Secretariat recommends that the MAC reviews and discusses the updates to the Market Development Forward Work Program.

Table 1 – Market Development Forward Work Program

Review	Issues	Status and Next Steps
RCM Review	A review of the RCM, including a review of the Planning Criterion.	<ul style="list-style-type: none"> <li>• The MAC Secretariat consulted the MAC on a draft Scope of Works for the RCM Review at the MAC meeting on 21 September 2021 and Mrs Jacinda Papps subsequently provided comments to the MAC Secretariat on the proposed guiding principles for the review.</li> <li>• The MAC is asked to approve the formation of a MAC Working Group and the Terms of Reference for the Working Group – see Agenda Item 8.</li> <li>• The Coordinator has approved a final Scope of Works for the RCM Review. A copy of the Scope of Works is attached at Agenda Item 8 and will be published on the Coordinator’s Website once the RCM Review Working Group is formed.</li> <li>• The MAC Secretariat has developed and published a Request for Tender seeking a consultant to assist with the RCM Review. Responses to this request are due by 5 November 2021.</li> </ul>
Cost Allocation Review	A review of: <ul style="list-style-type: none"> <li>• the allocation of Market Fees, including behind the meter (<b>BTM</b>) and Distributed Energy Resources (<b>DER</b>) issues;</li> <li>• cost allocation for Essential System Services; and</li> <li>• Issues 2, 16, 23 and 35 from the MAC Issues List (see Table 3).</li> </ul>	<ul style="list-style-type: none"> <li>• The MAC Secretariat has developed a Scope of Works for the Cost Allocation Review for consideration by the MAC – see Agenda Item 9.</li> </ul>
Procedure Change Process Review	A review of the WEM Procedure Change Process to address issues identified through Energy Policy WA’s consultation on governance changes.	<ul style="list-style-type: none"> <li>• The MAC Secretariat will present a draft Scope of Works for the review of the WEM Procedure Change Process for consideration by the MAC at its 14 December 2021 meeting.</li> </ul>

**Table 1 – Market Development Forward Work Program**

Review	Issues	Status and Next Steps
Forecast quality	Review of Issue 9 from the MAC Issues List (see Table 4).	<ul style="list-style-type: none"> <li>This review has been deferred.</li> </ul>
Network Access Quantity ( <b>NAQ</b> ) Review	Assess the performance of the NAQ regime, including policy related to replacement capacity, and address issues identified during implementation of the Energy Transformation Strategy (ETS).	<ul style="list-style-type: none"> <li>This review will be commenced after completion of the RCM Review.</li> </ul>
Short Term Energy Market ( <b>STEM</b> ) Review	Review the performance of the STEM to address issues identified during implementation of the ETS.	<ul style="list-style-type: none"> <li>This review has been deferred.</li> </ul>

**Table 2 – Issues to be Addressed in the RCM Review**

Id	Submitter/Date	Issue	Status
1	Shane Cremin November 2017	<p><b>IRCR calculations and capacity allocation</b></p> <p>There is a need to look at how IRCR and the annual capacity requirement are calculated (i.e. not just the peak intervals in summer) along with recognising BTM solar plus storage. The incentive should be for retailers (or third-party providers) to reduce their dependence on grid supply during peak intervals, which will also better reflect the requirement for conventional ‘reserve capacity’ and reduce the cost per kWh to consumers of that conventional ‘reserve capacity’.</p>	To be considered in the RCM Review.
3	Shane Cremin November 2017	Penalties for outages.	To be considered in the RCM Review.
4	Shane Cremin November 2017	Incentives for maintaining appropriate generation mix.	To be considered in the RCM Review.
14/36	Bluewaters and ERM Power November 2017	<p><b>Capacity Refund Arrangements:</b></p> <p>The current capacity refund arrangement is overly punitive as Market Participants face excessive capacity refund exposure. This refund exposure is well more than what is necessary to incentivise the Market Participants to meet their obligations for making capacity available. Practical impacts of such excessive refund exposure include:</p> <ul style="list-style-type: none"> <li>• 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</li> <li>• excessive insurance premiums and cost for meeting prudential support requirements.</li> </ul>	To be considered in the RCM Review.

Table 2 – Issues to be Addressed in the RCM Review

Id	Submitter/Date	Issue	Status
		<p>Bluewaters recommended imposing seasonal, monthly and/or daily caps on the capacity refund. Bluewaters considered that reviewing capacity refund arrangements and reducing the excessive refund exposure is likely to promote the Wholesale Market Objectives by minimising:</p> <ul style="list-style-type: none"> <li>• 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</li> </ul> <p>unnecessary excessive insurance premium and prudential support costs, the saving of which can be passed on to consumers.</p>	
30	Synergy November 2017	<p><b>Reserve Capacity Mechanism</b></p> <p>Synergy would like to propose a review of WEM Rules related to reserve capacity requirements and reserve capacity capability criteria to ensure alignment and consistency in determination of certain criteria. For instance:</p> <ul style="list-style-type: none"> <li>• assessment of reserve capacity requirement criteria, reserve capacity capability and reserve capacity obligations;</li> <li>• IRCR assessment;</li> <li>• Relevant Demand determination;</li> <li>• determination of NTDL status;</li> <li>• Relevant Level determination; and</li> <li>• assessment of thermal generation capacity.</li> </ul> <p>The review will support Wholesale Market Objectives (a) and (d).</p>	To be considered in the RCM Review.

**Table 2 – Issues to be Addressed in the RCM Review**

Id	Submitter/Date	Issue	Status
56	Perth Energy July 2019	<p><b>Issues with Reserve Capacity Testing</b></p> <ul style="list-style-type: none"> <li>Market Generators that fail a Reserve Capacity Test may prefer to accept a small shortfall in a test (and a corresponding reduction in their Capacity Credits) than to run a second test.</li> <li>There is a discrepancy between the number of Trading Intervals for self-testing vs. AEMO testing.</li> <li>There is ambiguity in the timing requirements for a second test when the relevant generator is on an outage.</li> </ul> <p>There is ambiguity on the number of Capacity Credits that AEMO is to assign when certain test results occur.</p>	To be considered in the RCM Review (except that the first bullet may be out scope, in which case it will be added to Table 4).
58	MAC October 2019	<p><b>Outage scheduling for dual-fuel Scheduled Generators</b></p> <p>'0 MW' outages are currently used to notify System Management when a dual-fuel Scheduled Generator is unable to operate on one of its nominated fuels. There is no explicit obligation in the WEM Rules or the Power System Operation Procedure: Facility Outages to request/report outages that limit the ability of a Scheduled Generator to operate using one of its fuels. In terms of the provision of sent out energy (the service used to determine Capacity Cost Refunds), it is questionable whether this situation qualifies as an outage at all.</p> <p>More generally, the WEM Rules lack clarity on the nature and extent of a Market Generator's obligations to ensure that its Facility can operate on the fuel used for its certification, what (if anything) should occur if these obligations are not met, and the implications for outage scheduling and Reserve Capacity Testing.</p> <ul style="list-style-type: none"> <li>(See section 7.2.2.5 of the Final Rule Change Report for RC_2013_15.)</li> </ul>	To be considered in the RCM Review (or may be out of scope, in which case it will be added to Table 4).

**Table 3 – Issues to be Addressed in the Cost Allocation Review**

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

**Table 3 – Issues to be Addressed in the Cost Allocation Review**

Id	Submitter/Date	Issue	Status
		<p>reform. This is expected to increase the visibility of (and therefore incentivise) prudence and accountability when it comes to deciding the need and scope of the reform.</p> <p>Recommendations: to review the Market Fees structure including the cost recovery mechanism for a reform program.</p> <p>The cost saving from improved economic efficiency can be passed on to the end consumers, hence promoting the Wholesale Market Objectives.</p>	
35	ERM Power November 2017	<p><b>BTM generation and apportionment of Market Fees, ancillary services, etc.</b></p> <p>The amount of solar PV generation on the system is increasing every year, to the point where solar PV generation is the single biggest unit of generation on the SWIS. This category of generation has a significant impact on the system and we have seen this in terms of the daytime trough that is observed on the SWIS when the sun is shining. The issue is that generators that are on are moving around to meet the needs of this generation facility but this generation facility, which could impact system stability, does not pay its fair share of the costs of maintaining the system in a stable manner. That is, they are not the generators that receive its fair apportionment of Market Fees and pay any ancillary service costs but yet they have absolute freedom to generate into the SWIS when the fuel source is available. There needs to be equity in this equation.</p>	To be considered in the Cost Allocation Review.



Table 4 – Other Issues

Id	Submitter/Date	Issue	Status
9	Community Electricity November 2017	Improvement of AEMO forecasts of System Load; real-time and day-ahead.	Consideration of this issue has been deferred.
22	Bluewaters November 2017	<p>Prudential arrangement design issue: clause 2.37.2 of the WEM Rules enables AEMO to review and revise a Market Participant's Credit Limit at any time. It is expected that AEMO will review and increase Credit Limit of a Market Participant if AEMO considers its credit exposure has increased (for example, due to an extended plant outage event).</p> <p>In response to the increase in its credit exposure, clause 2.40.1 of the WEM Rules and section 5.2 of the Prudential Procedure allow the Market Participant to make a voluntary prepayment to reduce its Outstanding Amount to a level below its Trading Limit (87% of the Credit Limit).</p> <p>Under the current WEM Rules and Prudential Procedure, AEMO can increase the Market Participant's Credit Limit (hence increasing its prudential support requirement) despite that a prepayment has already been paid (it is understood that this is AEMO's current practice).</p> <p>The prepayment would have already served as an effective means to reduce the Market Participant's credit exposure to an acceptable level. Increasing the Credit Limit in addition to this prepayment would be an unnecessary duplication of prudential requirement in the WEM.</p> <p>This unnecessary duplication is likely to give rise to higher-than-necessary prudential cost burden in the WEM; which creates economic inefficiency that is ultimately passed on the end consumers.</p>	<p>On 16 September 2021, AEMO announced its decision to progress a Procedure Change Proposal to amend the WEM Procedure: Prudential Requirements in response to a request from Change Energy.</p> <p>The Procedure Change Proposal will review the following two requirements under step 2.2.2 of the WEM Procedure:</p> <ul style="list-style-type: none"> <li>• that AEMO must use 24 months of available data when determining a Market Participant's Anticipated Maximum Exposure (<b>AME</b>); and</li> <li>• that AEMO must determine the AME as the sum of the 70-day maximum Non-STEM Settlement exposure and 15-day maximum STEM Settlement exposure, which may lead to an excess amount of prudential security being held by AEMO.</li> </ul> <p>The MAC has agreed to keep Issue 22 open until it is clear whether the Procedure Change Process will address all of Issue 22.</p>

**Table 4 – Other Issues**

Id	Submitter/Date	Issue	Status
		<p>Recommendation: amend the WEM Rules and/or procedures to eliminate the duplication of prudential burden on Market Participants.</p> <p>The resulting saving from eliminating this unnecessary prudential burden can be passed on to end consumers. This promotes economic efficiency and therefore the Wholesale Market Objectives.</p>	<p>A forum to discuss the Procedure Change Proposal was held on 7 October 2021.</p> <p>AEMO intends to publish the Procedure Change Proposal in October/November 2021.</p>

# MARKET ADVISORY COMMITTEE MEETING, 2 November 2021

FOR NOTING

SUBJECT: UPDATE ON AEMO'S MARKET PROCEDURES

AGENDA ITEM: 6(A)

## 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 meetings	Next meeting
Date	7 October 2021*	TBC
Market Procedures for discussion	Market Procedure: Prudential Arrangement	TBC

\*This was a Participant Workshop rather than an APCWG meeting, to discuss potential changes and seek feedback.

## 3. AEMO PROCEDURE CHANGE PROPOSALS

The status of AEMO Procedure Change Proposals is described below, current as at 2 November 2021. Changes since the previous MAC meeting are in **red text**. A procedure change is removed from this report after its commencement has been reported or a decision has been taken not to proceed with a potential Procedure Change Proposal.

ID	Summary of changes	Status	Next steps	Date
None				



## Agenda Item 7(a): Overview of Rule Change Proposals (as at 26 October 2021)

Market Advisory Committee (**MAC**) Meeting 2021\_11\_02

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

### Indicative Rule Change Activity Until the Next MAC Meeting

Reference	Title	Events	Indicative Timing
None			

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

Reference	Submitted	Proponent	Title	Commenced
None				

### Rule Change Proposals Awaiting Commencement

Reference	Submitted	Proponent	Title	Commencement
None				

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

Reference	Submitted	Proponent	Title	Rejected
None				

### Rule Change Proposals Awaiting Approval by the Minister

Reference	Submitted	Proponent	Title	Approval Due Date
None				

### Formally Submitted Rule Change Proposals

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
<b>Fast Track Rule Change Proposals with Consultation Period Closed</b>						
None						
<b>Fast Track Rule Change Proposals with Consultation Period Open</b>						
None						
<b>Standard Rule Change Proposals with Second Submission Period Closed</b>						
RC_2019_03	17/12/2020	ERA	Method used for the assignment of Certified Reserve Capacity to Intermittent Generators	High	Publication of Final Rule Change Report	31/12/2021
<b>Standard Rule Change Proposals with Second Submission Period Open</b>						
None						

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
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#### Standard Rule Change Proposals with First Submission Period Closed

RC_2014_05	02/12/2014	IMO	Reduced Frequency of the Review of the Energy Price Limits and the Maximum Reserve Capacity Price	Medium	Publication of Draft Rule Change Report	31/12/2021
RC_2018_03	01/03/2018	Collgar Wind Farm	Capacity Credit Allocation Methodology for Intermittent Generators	Medium	Publication of Draft Rule Change Report	31/12/2021
RC_2019_01	21/06/2019	Enel X	The Relevant Demand calculation	Medium	Publication of Draft Rule Change Report	31/12/2021

#### Standard Rule Change Proposals with the First Submission Period Open

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#### Pre-Rule Change Proposals

Reference	Proponent	Description	Next Step	Date
RC_2020_04	Rule Change Panel	Balancing Facility Loss Factor Adjustment	Consult with the MAC on the priority for development of a Rule Change Proposal	TBD

## Rule Changes Made by the Minister and Awaiting Commencement

Gazette	Date	Title	Commencement
2021/166	28/09/2021	Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 2) Rules 2021	<ul style="list-style-type: none"> <li>• Schedule B will commence immediately after the commencement of:               <ul style="list-style-type: none"> <li>○ the Amending Rules in Schedule C of the <i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020</i> specified in Part 3 of the commencement notice published on 28/05/2021 in Gazette 2021/96, that commence on 01/11/2021; and</li> <li>○ the Amending Rules in Schedule C of the <i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020</i> specified in Part 2 of the commencement notice published on 28/09/2021, that commence on 01/11/2021.</li> </ul> </li> <li>• Schedule C will commence on 1 December 2021.</li> <li>• Schedule D will commence immediately after the commencement of:               <ul style="list-style-type: none"> <li>○ the Amending Rules in Schedule C of the <i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020</i> specified in Part 4 of the commencement notice published on 28/05/2021 in Gazette 2021/96, that commence on 01/03/2022; and</li> <li>○ the Amending Rules in Schedule D of the <i>Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 1) Rules 2021</i>, that commence on 01/03/2022.</li> </ul> </li> <li>• Schedule E will commence on 1 June 2022.</li> <li>• Schedule F will commence on 1 July 2022.</li> <li>• Schedule G will commence at times specified by the Minister in notices published in the Gazette.</li> </ul>
2021/96	28/05/2021	Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 1) Rules 2021	<ul style="list-style-type: none"> <li>• Schedule D will commence immediately after the commencement of the <i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020</i> specified in Part 4 of the commencement notice published on 28/05/2021 in Gazette 2021/96, that commence on 01/03/2022.</li> </ul>

Gazette	Date	Title	Commencement
			<ul style="list-style-type: none"> <li>• Schedule E will commence at times specified by the Minister in notices published in the Gazette:               <ul style="list-style-type: none"> <li>○ The Amending Rules specified in Part 1 of the commencement notice published on 28/09/2021 in Gazette 2021/166 will commence on 01/03/2022.</li> <li>○ The Amending Rules specified in Part 2 of the commencement notice published on 28/09/2021 in Gazette 2021/166 will commence on 01/07/2022.</li> </ul> </li> </ul>
20201/17	18/01/2021	Wholesale Electricity Market Amendment (Governance) Rules 2021	<ul style="list-style-type: none"> <li>• Schedule C will commence immediately after the commencement of the Amending Rules in clauses 50 and 62 of Schedule C of the <i>Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020</i>.</li> </ul>
2020/214	24/12/2020	Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020	<ul style="list-style-type: none"> <li>• Amending Rules in Schedule C will commence at the times specified by the Minister in notices published in the Gazette:               <ul style="list-style-type: none"> <li>○ The Amending Rules specified in Part 3 of the commencement notice published on 28/05/2021 in Gazette 2021/96 and Part 2 of the commencement notice published on 28/09/2021 in Gazette 2021/166 will commence on 01/11/2021.</li> <li>○ The Amending Rules specified in Part 4 of the commencement notice published on 28/05/2021 in Gazette 2021/96 will commence on 01/03/2022.</li> <li>○ The Amending Rules specified in Part 3 of the commencement notice published on 28/09/2021 in Gazette 2021/166 will commence immediately after the commencement of the Amending Rules in Schedule D of the <i>Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 1) Rules 2021</i>, that commence on 01/03/2022.</li> <li>○ The Amending Rules specified in Part 4 of the commencement notice published on 28/09/2021 in Gazette 2021/166 will commence on 01/09/2022.</li> <li>○ The Amending Rules specified in Part 5 of the commencement notice published on 28/09/2021 in Gazette 2021/166 will commence on 06/12/2022.</li> </ul> </li> </ul>





## Agenda Item 8: Approval of the Terms of Reference for the Reserve Capacity Mechanism Review Working Group

Market Advisory Committee (**MAC**) Meeting 2021\_11\_02

### Background

The Coordinator of Energy (**Coordinator**) has commenced a review of the Reserve Capacity Mechanism (**RCM**) under clause 2.2D.1 of the Wholesale Electricity Market (**WEM**) Rules. Clause 2.2D.1(h) confers the function on the Coordinator to consider and, in consultation with the MAC, progress the evolution and development of the WEM and the WEM Rules.

In addition, clause 4.5.15 of the WEM Rules requires the Coordinator to review the Planning Criterion at least every 5 years. The RCM Review will incorporate the Coordinator's first review of the Planning Criterion.

Energy Policy WA has developed a scope of works for the RCM Review in consultation with the MAC. The Coordinator has approved the scope of works for the RCM Review (**Attachment 1**).

The Coordinator would like the MAC to establish a Working Group to provide expert advice and analysis to assist with the RCM Review. The MAC Secretariat has developed a draft Terms of Reference for the RCM Review Working Group (**Attachment 2**).

### Recommendation

That the MAC:

- (1) notes the final Scope of Works for the RCM Review;
- (2) approves the establishment of the RCM Review Working Group; and
- (3) approves the Terms of Reference for the RCM Review Working Group (**Attachment 2**).

### Next Steps

- the MAC Secretariat will establish the RCM Review Working Group following approval of the Terms of Reference;
- Energy Policy WA will Chair the Working Group;
- the MAC Secretariat will advise stakeholders that they may nominate representatives to the Working Group; and
- the Working Group will commence operations in November 2021.

### Attachments

- (1) Scope of Works for the Review of the Reserve Capacity Mechanism
- (2) Proposed Terms of Reference for the Reserve Capacity Mechanism Review Working Group

# Scope of Works for the Review of the Reserve Capacity Mechanism

## 1. Introduction

### 1.1 Review Requirements

The Coordinator of Energy (**Coordinator**) plans to review the Reserve Capacity Mechanism (**RCM**) under clause 2.2D.1 of the WEM Rules in 2021/22 and to develop any WEM Rules resulting from the review in 2022/23. Clause 2.2D.1(h) confers the function on the Coordinator to consider and, in consultation with the Market Advisory Committee (**MAC**), progress the evolution and development of the Wholesale Electricity Market (**WEM**) and the WEM Rules.

In addition, clause 4.5.15 of the WEM Rules requires the Coordinator to review the Planning Criterion at least every 5 years. The RCM Review will incorporate the Coordinator's first review of the Planning Criterion.

The WEM Rules also require the Economic Regulation Authority (**ERA**) to undertake the following reviews, which may be affected by the Coordinator's RCM Review:

- review of the methodology for setting the Benchmark Reserve Capacity Price and the Energy Price Limits (clause 2.26.3);
- review of the Reserve Capacity Price Factors (clause 2.24.3A); and
- review of the Relevant Level Methodology (clause 4.11.3C).

The MAC maintains an Issues List to track and progress issues that have been identified by WEM stakeholders. Several open issues on the current MAC Issues List relate to the RCM. Appendix 1 to this paper lists the issues related to the RCM and provides comments from Energy Policy WA on how they will be addressed by the RCM Review.

### 1.2 Background

The RCM was implemented in 2004 and commenced in 2005. At that time:

- the high-level objective of the RCM was to ensure that:
  - there would be sufficient generation capacity to:
    - cover a 1 in 10 year peak demand with a given likelihood; and
    - ensure unserved energy does not exceed 0.002% of annual energy consumption (including transmission losses);
  - any demand lower than the 1 in 10 year peak demand would be covered with an even higher certainty; and
- the generation capacity in the SWIS was mainly thermal generation with very little penetration of intermittent generation and behind the meter PV.

### 1.2.1 The current RCM

The current RCM was implemented in the SWIS in 2005 to ensure sufficient capacity for system reliability. The RCM has subsequently been amended to address issues with the initial mechanism and to account for market and system changes. However, the overall concept of the RCM has remained unchanged, as follows:

- the purpose of the RCM is to ensure that there is sufficient capacity available in the SWIS to maintain acceptable reliability of supply;
- the minimum number of Capacity Credits procured is based on the greater of:
  - an expected 1 in 10 year peak demand plus a reserve margin, plus an allowance for Intermittent Loads, plus an allowance for Essential System Services (**ESS**); or
  - the capacity required to ensure unserved energy does not exceed 0.002% of annual energy consumption (including transmission losses).
- CRC is based on:
  - for thermal generators, the expected availability of the facility at 41°C; and
  - for Intermittent Generators and Demand Side Programmes, the expected availability of the facility during system peak demand periods.
- the monetary value of Capacity Credits is not affected by the technology of a facility, except for the period from the 2017 Capacity Year to the 2020 Capacity Year, inclusive, where a lower price was paid for Capacity Credits assigned to Demand Side Management Programmes (**DSPs**).<sup>1</sup>

Given the changes to the nature of the demand profile and generation in the SWIS since the RCM was implemented, and the transition to a low emissions energy system characterised by increasing levels of intermittent and distributed generation, the Coordinator and other stakeholders consider that the current RCM design may no longer be fit for purpose and requires a fundamental review.

### 1.2.2 Change to the RCM

The following significant changes have been made to the RCM since 2005:

- The regime for Capacity Cost Refunds has been amended several times and was last changed in 2016 (applicable from the 2017 Capacity Year) by the (then) Government's Electricity Market Review (**EMR**). The EMR changes included:
  - basing the amount of the refund payable on the system-wide generation reserve margin during the relevant Trading Interval instead of the time of day and year; and
  - redistributing the Capacity Cost Refunds to Market Generators based on the availability of their Facilities instead of to Market Customers.
- The method for assigning Certified Reserve Capacity (**CRC**) to Intermittent Generators has changed several times, with the most significant change applied from the 2014 Capacity Year (the 2012 Reserve Capacity Cycle). This change replaced the determination of CRC for Intermittent Generators based on average performance with the current Relevant Level Method that aims to account for performance during peak demand, variability, and saturation.
- The method for assigning CRC to Demand Side Programmes was last changed by the EMR in 2016 (applicable from the 2017 Capacity Year). The change amended the determination of the Relevant Demand to be based on a markedly larger set of high demand Trading Intervals (400

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<sup>1</sup> DSPs are now paid the variable capacity price and are not protected by the price floor or ceiling that is afforded to facilities that were allocated Capacity Credits in the 2020 Capacity Year.

instead of 32) and a more stringent performance requirement (90<sup>th</sup> percentile instead of median).

- The Reserve Capacity Price regime has been amended several times, with the most recent changes including:
  - The EMR changed the Reserve Capacity Price regime in 2016 (applicable from the 2017 Capacity Year). The change steepened the slope of the price curve and introduced the DSP Reserve Capacity Price that was paid for Capacity Credits from DSPs and was based on the expected dispatch of these Facilities.
  - The Government changed the Reserve Capacity Price regime in 2020 (commencing for the 2021 Capacity Year). These changes included:
    - a modification of the formula for the Reserve Capacity Price to apply different slopes depending on the amount of excess capacity;
    - the removal of the DSP Reserve Capacity Price resulting in DSPs receiving the same Reserve Capacity Price as other Facilities; and
    - the introduction of a transitional price that applies a price floor and ceiling for incumbent Facilities that were assigned Capacity Credits for the 2020 Capacity Year (the 2018 Reserve Capacity Cycle).
- The Government's Energy Transformation Strategy (**ETS**) introduced provisions for storage and hybrid Facilities in 2020, which are to be applicable from the 2023 Capacity Year (the 2021 Reserve Capacity Cycle).
- The ETS introduced the Network Access Quantities regime in 2020, which is to be applicable from the 2024 Capacity Year (the 2022 Reserve Capacity Cycle) to account for network constraints in the RCM.

Since its introduction, the Planning Criterion has been reviewed twice (the last time in 2012) resulting only in minor changes as it was found to be appropriate overall.

### 1.2.3 Changes in the South West Interconnected System (SWIS)

The SWIS has changed substantially since 2012:

- the installed capacity of intermittent generation has increased from around 500 MW<sup>2</sup> to around 1,170 MW;<sup>3</sup>
- the estimated installed capacity of behind the meter PV has increased from around 170 MW to around 1,740 MW;<sup>4</sup>
- some of Synergy's thermal plant has exited (or will soon exit) the market:
  - 387 Capacity Credits exited the market from the 2018 Capacity Year in response to an order by the Government to retire capacity;<sup>5</sup>
  - the Government has announced the planned retirement of Muja 5 (195 Capacity Credits) for 1 October 2022 and Muja 6 (193 Capacity Credits) for 1 October 2024;

<sup>2</sup> Based on the list of Intermittent Generators taken into account for the 2021 review of the Planning Criterion, as published in the final report, and the associated nameplate capacity for the listed Facilities as published in the 2014 Electricity Statement of Opportunities (**ESOO**).

<sup>3</sup> As published in the 2021 ES00.

<sup>4</sup> Installed capacity in April 2021, estimated by AEMO, as published on page 6 of the 2021 ES00.

<sup>5</sup> The 387 Capacity Credits was allocated to about 436 MW of nameplate capacity. About 120 MW of this capacity no longer receives Capacity Credits but is still operational under Network Control Service Contracts with Western Power.

- there has been a substantial reduction in capacity provided by DSPs:
  - around 460 Capacity Credits was allocated to DSPs for the 2012 Capacity Year and around 560 Capacity Credits for the 2016 Capacity Year;<sup>6</sup>
  - the subsequent change to capacity payments for DSPs caused about 450 Capacity Credits from DSPs to exit the market for the 2017 Capacity Year; and
  - 86 Capacity Credits are assigned to DSPs for the 2022 Capacity Year.

The large increase in intermittent generation capacity and behind the meter PV have:

- shifted annual and daily system peak demand to later in the day because the high contribution of behind the meter PV reduces system demand markedly in the lead up to sunset;<sup>7</sup>
- reduced minimum system demand as the generation of behind the meter PV markedly decreases system demand during the middle of the day;
- steepened system demand increases ahead of the evening peak because the generation of behind meter PV has reduced minimum demand and moved it from before dawn to the middle of the day, causing a much greater and steeper climb in demand to the evening peak;<sup>8</sup>
- increased volatility of system demand because of the volatility of the output of behind the meter PV on days with broad-area moving cloud band cover; and
- increased uncertainty and volatility of supply because of the increased penetration of Intermittent Generators, whose output is dependent on weather conditions.

In addition, the SWIS is in the transition to a lower emissions energy system because of the decreasing generation cost of renewable generation facilities, the Federal Government's Renewable Energy Target, increased penetration of behind the meter PV, increasing pressure to reduce greenhouse gas emissions and consumers' demand for 'green' products.

Other generation technologies, such as battery storage, are becoming more viable. New sources of dispatchable capacity, such as Virtual Power Plants, are being trialled for future use. Some of these capacity sources could flatten the demand profile delaying the need for additional conventional capacity to address system stress events.

## 2. Project scope

The following conditions precedent are applicable to the RCM Review:

- the WEM will continue to have an RCM;
- the purpose of the RCM is to ensure acceptable reliability of electricity supply at the most efficient cost ("purpose of the RCM"); and
- any changes to the RCM should not erode the level of system reliability currently provided for by the WEM Rules.

The objective of this review is to develop an RCM that:

- achieves the system reliability that underpins the current RCM at the most efficient cost for consumers for the current and the anticipated future system demand profiles;

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<sup>6</sup> As published on AEMO's website under clause 10.5.1(f) of the WEM Rules.

<sup>7</sup> Peak demand was at 16:30 in the 2012 Capacity Year and at 18:00 in the 2020 Capacity Year, as published in the 2021 ES00.

<sup>8</sup> Minimum demand was 1,309 MW in the 2012 Capacity Year and 954 MW in the 2020 Capacity Year, as published in the 2021 ES00 Data Register.

- addresses the issues associated with the transformation of the energy sector, as indicated in section 1.2; and
- accounts for any transitional issues associated with any changes to the RCM.

The following aspects related to the RCM are out of scope for this RCM review:

- the Network Access Quantities regime;
- the Reserve Capacity Price regime; and
- Energy Price Limits.<sup>9</sup>

## 2.1 Guiding principles

The guiding principles for the RCM Review are that the RCM should:

- (1) Meet the Wholesale Market Objectives:
  - (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;
  - (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;
  - (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
  - (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and
  - (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.
- (2) Enable the orderly transition to a low greenhouse gas emissions economy.
- (3) Be cost-effective, simple, flexible, and able to be maintained on an ongoing basis.
- (4) Provide investment signals, including locational and technical capability signals, that deliver resource adequacy by ensuring that diverse and sufficiently reliable capacity is available to meet the capacity requirements.

## 2.2 Project stages

The RCM Review is planned to be undertaken in the following three stages. Where possible, the steps will be undertaken in parallel, rather than sequentially.

### Stage 1

- Step 1: Assess the requirements for the capacity needed to achieve the purpose of the RCM, in the context of the recent and anticipated transformation of the SWIS and WEM, by defining:
  - the types of system stress in the WEM (currently and for 2030);
  - the capacity requirements needed to achieve the desired system reliability (the “reliability target”), including to meet:
    - peak demand;

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<sup>9</sup> The Energy Price Limits will be considered as part of Energy Policy WA’s work on market power mitigation measures.



- minimum demand;
  - reliable transition between minimum demand and peak demand (e.g. through flexibility, adequate ramping capability; and
  - which system stress situations can/should be addressed through the RCM or outside of the RCM (such as via ESS).
- Step 2: Review the Planning Criterion to ensure that it reflects the purpose of the RCM and achieves the reliability target determined in Step 1, including:
  - assessing whether the installed capacity (**ICAP**) or unforced capacity (**UCAP**) concept<sup>10</sup> is best suited to determining the capacity value of a facility in the SWIS (includes assessment of MAC Issue 4).
- Step 3: Develop one or more methods for assigning CRC that can meet the Planning Criterion determined in Step 2. This includes:
  - how to determine the ability of different types of capacity (e.g. different technology types) to contribute to meeting the reliability target;
  - what obligations should be placed on different technology types (includes assessment of MAC Issue 4 and part of MAC Issue 30); and
  - enable the achievement of net zero emissions by 2050.
- Step 4: Review the method for setting of the Benchmark Reserve Capacity Price (**BRCP**), considering the revised Planning Criterion (includes assessment of MAC Issue 4).
- Step 5: assess the method(s) for assigning CRC under different scenarios (2030, 2050) (includes assessment of parts of MAC Issue 30).

## Stage 2

- Assess how the outcomes of Stage 1 affect the following aspects of the RCM:
  - outage scheduling;
  - the refund mechanism (includes assessment of MAC Issues 3 and 14/36);
  - Reserve Capacity Testing; and
  - determination of Individual Reserve Capacity Requirement (**IRCR**) (currently and for 2030) (includes assessment of MAC Issue 1 and part of MAC Issue 30).

## Stage 3

- Develop a detailed design of the RCM to implement the high-level design developed under Stages 1 and 2 (includes assessment of parts of MAC Issue 56).
- Assess whether any transitional measures are needed, and if so, develop the transitional measures.

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<sup>10</sup> **ICAP** refers to the maximum amount of energy a resource can provide under given conditions, such as a certain ambient temperature. ICAP may overstate a resource's ability to provide capacity when needed since it does not account for the probability of forced outages.

**UCAP** refers to the average amount of ICAP that is available at a given time after discounting the time that the facility is unavailable due to outages or deratings. There are different approaches how to determine the outage expectation for different types of capacity (i.e. different technologies).

The current RCM uses ICAP (at 41°C) to determine the CRC of all thermal generators and bases the determination of CRC for all other capacity providers on the ICAP concept by estimating their capacity value during peak demand.

## 2.3 Approach to analysis

The following analysis will be undertaken for Steps 1 and 2 of Stage 1 of the RCM Review. The approach to analysis in the remaining steps and stages of the review will be defined based on the outcomes of this analysis.

### 2.3.1 System stress

**Literature review:** Review of RCM arrangements in other markets and what they aim to address, which problems their electricity systems are facing or are expected to face in the future, and whether/how these arrangements and issues relate to the WEM. Jurisdictions to be investigated include:

- UK;
- PJM; and
- any other jurisdictions identified by the MAC or Energy Policy WA.

**Modelling to identify system stress (current and expected future):** Modelling of the current SWIS demand and the demand and demand profile expected in 2030 under different credible scenarios. The analysis will assess daily, seasonal and annual demand profiles and load duration curves as well as demand profiles for 1 in 10 year weather conditions. The modelling will account for the current generation fleet, other existing identified capacity sources and expected developments, and will reflect the DER Roadmap and the findings of, and information from, the Whole of System Plan and expected demand-response capacity and storage uptake. The objective is to identify causes of system stress such as:

- maximum demand (including extreme peaks);
- minimum demand (including extreme lows);
- fluctuation of demand (including rate and speed of change);
- generation volatility, including rapid changes of availability from intermittent generation (including DER);
- forced outages and maintenance planning; and
- any other aspects identified in the course of the modelling work.

### 2.3.2 Required capacity services

This will include:

- first modelling how the current generation mix and other capacity sources accommodate the identified system stress types (current and future) and identifying any deficiencies; and
- then identifying the capacity requirements and types for the SWIS that are needed to efficiently meet the reliability target for different scenarios. This will include:
  - determining the ideal generation and other capacity mix(es) that could manage the identified system stress types (current and future); and
  - assessing the need for other types of ESS in the SWIS.

### 2.3.3 Review the Planning Criterion

This will include:

- undertaking a cost benefit analysis of using ICAP or UCAP to meet the capacity requirements for the SWIS; and



- assessing whether the current Planning Criterion is adequate for meeting the capacity requirements of the SWIS, and if not, developing a planning criterion that will meet them. This will be based on modelling of the different load scenarios.

### 3. Stakeholder engagement

The RCM Review will be undertaken in close consultation with the MAC, either directly through MAC meetings or, more likely, through the establishment of a Working Group. Participation in the Working Group will not be limited to MAC members. Energy Policy WA will develop straw man solutions to provide starting points for the discussions at each stage of the review process, as appropriate.

Energy Policy WA will develop consultation papers based on the outcomes from the Working Group or MAC meetings and invite feedback from all stakeholders.

Under clause 2.5.1C of the WEM Rules, the Coordinator must consult with the MAC before commencing the development of a Rule Change Proposal.

### 4. Project Schedule

The following is a preliminary high-level project schedule for the RCM Review.

Tasks/Milestones	Timing
Consult with the MAC on the scope of works for the RCM review.	21 September 2021
Engage a consultant(s) to assist with the review.	November 2021
Establish MAC Working Group.	2 November 2021
<b>Stage 1</b>	
Literature review of RCM arrangements in other jurisdictions.	January 2022
Determine the requirements for capacity needed to achieve the purpose of the RCM, by defining: <ul style="list-style-type: none"> <li>• what system stress situations appear in the WEM (currently and forecast for 2030);</li> <li>• the capacity requirements needed to achieve the reliability target; and</li> <li>• which system stress situations can/should be addressed through the RCM.</li> </ul>	January 2022
Review the Planning Criterion to ensure it reflects the purpose of the RCM and the reliability target, including assessing whether to use ICAP or UCAP is best suited to determine the capacity value in the SWIS.	February 2022
Consultation with the MAC Working Group and stakeholder workshops.	December 2021 to February 2022
Develop high-level approaches for: <ul style="list-style-type: none"> <li>• assigning CRC; and</li> <li>• setting of the BRCP considering the revised Planning Criterion.</li> </ul> This will include: <ul style="list-style-type: none"> <li>• testing of the approaches through modelling; and</li> <li>• consultation on the approaches with the MAC Working Group.</li> </ul>	May 2022

Tasks/Milestones	Timing
Consultation on Stage 1 with the MAC Working Group and stakeholder workshops.	May 2022 to June 2022
<b>Stage 2</b>	
<p>Develop a high-level approach to reflect the design developed under Stage 1, including:</p> <ul style="list-style-type: none"> <li>• outage scheduling;</li> <li>• the refund mechanism;</li> <li>• Reserve Capacity Testing; and</li> <li>• determination of IRCR.</li> </ul> <p>This will include consultation on the approaches with the MAC Working Group.</p>	June 2022
Publish a consultation on the outcomes of Stages 1 and 2 via the release of a Consultation Paper and a request for stakeholder submissions.	July 2022
<b>Stage 3</b>	
Develop the detailed design for the concepts developed under Stages 1 and 2, in consultation with the MAC Working Group.	September 2022
Assess whether any transitional measures are needed, and if so, develop the transitional measures, in consultation with the MAC Working Group.	September 2022
Consultation paper(s) on the detailed RCM design and proposed transitional measures (if any) and a request for stakeholder consultation.	October 2022
Publish a final Information Paper on the proposed detailed revised RCM design.	December 2022
Develop a Rule Change Proposal for consideration and approval by the Coordinator and Minister.	February 2023

## Appendix 1: MAC Issues related to the RCM

Several issues on the MAC Issues List relate to the RCM. The following table lists the RCM-related issues and provides Energy Policy WA's assessment of how they relate to the RCM Review.

MAC Issue	Treatment
<p><b>Issue 1:</b></p> <p>There is a need to look at how IRCR and the annual capacity requirement are calculated (i.e. not just the peak intervals in summer) along with recognising behind the meter solar plus storage. The incentive should be for retailers (or third-party providers) to reduce their dependence on grid supply during peak intervals, which will also better reflect the requirement for conventional 'reserve capacity' and reduce the cost per kWh to consumers of that conventional 'reserve capacity'.</p>	Stage 2
<p><b>Issue 4:</b></p> <p>Incentives for maintaining an appropriate generation mix.</p>	Stage 1
<p><b>Issue 30:</b></p> <p>Review of reserve capacity requirement and reserve capacity capability criteria to ensure alignment and consistency in determination of certain criteria. For instance:</p> <ul style="list-style-type: none"> <li>• assessment of RCR criteria, reserve capacity capability and reserve capacity obligations;</li> <li>• IRCR assessment;</li> <li>• Relevant Demand determination;</li> <li>• determination of Non-Temperature Dependant Load status;</li> <li>• Relevant Level determination; and</li> <li>• assessment of thermal generation capacity.</li> </ul>	<ul style="list-style-type: none"> <li>• Stage 1</li> <li>• Stage 2</li> <li>• Stage 1</li> <li>• Out of scope</li> <li>• Stage 1</li> <li>• Stage 1</li> </ul>
<p><b>Issue 3:</b></p> <p>Penalties for outages.</p>	Stage 2
<p><b>Issue 14/36:</b></p> <p>Capacity Refund Arrangements:</p> <p>The current capacity refund arrangement is overly punitive as Market Participants face excessive capacity refund exposure. This refund exposure is well more than what is necessary to incentivise the Market Participants to meet their obligations for making capacity available. Practical impacts of such excessive refund exposure include:</p> <ul style="list-style-type: none"> <li>• 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</li> <li>• excessive insurance premiums and cost for meeting prudential support requirements.</li> </ul> <p>Bluewaters recommended imposing seasonal, monthly and/or daily caps on the capacity refund. Bluewaters considered that reviewing capacity refund</p>	Stage 2

MAC Issue	Treatment
<p>arrangements and reducing the excessive refund exposure is likely to promote the Wholesale Market Objectives by minimising:</p> <ul style="list-style-type: none"> <li>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</li> <li>unnecessary excessive insurance premium and prudential support costs, the saving of which can be passed on to consumers.</li> </ul>	
<p><b>Issue 58:</b> Outage scheduling for dual-fuel Scheduled Generators: '0 MW' outages are currently used to notify System Management when a dual-fuel Scheduled Generator is unable to operate on one of its nominated fuels. There is no explicit obligation in the WEM Rules or the Power System Operation Procedure: Facility Outages to request/report outages that limit the ability of a Scheduled Generator to operate using one of its fuels. In terms of the provision of sent out energy (the service used to determine Capacity Cost Refunds), it is questionable whether this situation qualifies as an outage at all. More generally, the WEM Rules lack clarity on the nature and extent of a Market Generator's obligations to ensure that its Facility can operate on the fuel used for its certification, what (if anything) should occur if these obligations are not met, and the implications for outage scheduling and Reserve Capacity Testing. (See section 7.2.2.5 of the Final Rule Change Report for RC_2013_15.)</p>	Out of scope/ stage 2
<p><b>Issue 47:</b> 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, and the ERA should be able to independently scope the review. As such, AEMO recommends removing this requirement from the head of power in clause 4.5.14 of the WEM Rules.</p>	Out of scope
<p><b>Issue 56:</b> Issues with Reserve Capacity Testing:</p> <ul style="list-style-type: none"> <li>Market Generators that fail a Reserve Capacity Test may prefer to accept a small shortfall in a test (and a corresponding reduction in their Capacity Credits) than to run a second test.</li> <li>There is a discrepancy between the number of Trading Intervals for self-testing vs. AEMO testing.</li> <li>There is ambiguity in the timing requirements for a second test when the relevant generator is on an outage.</li> <li>There is ambiguity on the number of Capacity Credits that AEMO is to assign when certain test results occur.</li> </ul>	<ul style="list-style-type: none"> <li>Out of scope</li> <li>Stage 2</li> <li>Stage 2</li> <li>Stage 2</li> </ul>



# Terms of Reference

## Reserve Capacity Mechanism Review Working Group

2 November 2021

### 1. Background

The Coordinator of Energy (**Coordinator**) has commenced a review of the Reserve Capacity Mechanism (**RCM**) under clause 2.2D.1 of the Wholesale Electricity Market (**WEM**) Rules. Clause 2.2D.1(h) confers the function on the Coordinator to consider and, in consultation with the Market Advisory Committee (**MAC**), progress the evolution and development of the WEM and the WEM Rules.

In addition, clause 4.5.15 of the WEM Rules requires the Coordinator to review the Planning Criterion at least every 5 years. The RCM Review will incorporate the Coordinator's first review of the Planning Criterion.

Energy Policy WA developed a scope of works for the RCM Review in consultation with the MAC. The scope of works is available on the Coordinator's Website at <[URL to Working Group webpage](#)>. The scope of works for the RCM Review includes:

- guiding principles;
- project stages;
- the approach to analysis for parts of the RCM Review;
- stakeholder engagement;
- the project schedule; and
- some specific issues that need to be addressed.

The MAC has established the RCM Review Working Group under clause 2.3.17(a) of the WEM Rules to assist the Coordinator with the RCM Review.

### 2. Scope of the Working Group

The RCM Review Working Group has been established to provide expert advice and analysis on all aspects of the RCM Review, including:

- issues and concerns with the current RCM;
- requirements for the RCM and the Planning Criterion;
- review of Energy Policy WA's analysis underpinning the RCM Review; and
- support for the high-level and detailed design for the RCM.

### **3. Membership**

Energy Policy WA will Chair the RCM Review Working Group.

Any Market Participant or other interested stakeholder may nominate a person for membership on the RCM Review Working Group for approval by the Chair of the RCM Review Working Group.

All members of the RCM Working Group are required to contribute their time and resources to complete specific analysis and other tasks as requested by the Chair.

There are no restrictions on the number of RCM Review Working Group members. However, the Chair of the RCM Review Working Group may only approve one member from each organisation.

The Chair of the RCM Review Working Group will have discretion to allow additional subject matter experts or consultants to attend specific meetings or workshops, either generally or on a case-by-case basis.

Energy Policy WA will provide administrative support to the RCM Review Working Group.

### **4. Documentation**

Energy Policy WA will establish an RCM Review Working Group webpage on its website. Any discussion papers, meeting papers and meeting minutes will be posted to this page.

Market Participants and other stakeholders may register with Energy Policy WA to receive email communications regarding the RCM Review Working Group, including notices of publication of papers on the RCM Review Working Group webpage.

### **5. Responsibilities of Meeting Attendees**

A person attending an RCM Review Working Group meeting is expected to:

- have suitable knowledge and experience to engage in and contribute to discussions relevant to the specific meeting;
- prepare for the meeting, including by reading any meeting papers distributed before the meeting;
- participate as a general industry representative rather than representing their company's interests; and
- complete actions requested by the Chair, which may include undertaking of analysis or preparation of papers for discussion by the Working Group.

### **6. Administration**

Energy Policy WA will provide secretariat support for the RCM Review Working Group.

Energy Policy WA will ensure contact details for the RCM Review Working Group are maintained on the RCM Review Working Group webpage.

The Working Group will meet at least monthly. The Chair of the RCM Review Working Group may convene additional meetings of the working group in accordance with the timelines in the scope of works for the RCM Review.

Energy Policy WA will prepare and distribute all meeting correspondence to the RCM Review Working Group via email. Energy Policy WA will endeavour to provide the following documentation by email to the RCM Review Working Group members:

- notices of meetings, agendas, and relevant meeting papers at least 5 Business Days prior to the meeting; and
- key outcomes and actions emerging from each meeting no more than 5 Business Days following the meeting.

All meeting documentation will be published on Energy Policy WA's website as soon as practicable after it has been sent to the RCM Review Working Group members.

Meetings will generally be held online via TEAMS but may sometimes be held in person. Meeting minutes are to record meeting attendance, main outcomes of discussion, agreed recommendations to the MAC and action items. Meetings will be recorded to assist with development of minutes.

## 7. Reporting Arrangements

The RCM Review Working Group Chair must provide a report to the MAC on the RCM Review Working Group's activities at each MAC meeting. The reports must include, at a minimum:

- details of all RCM Review Working Group meetings since the last report to the MAC, including the date of the meeting and the key outputs of each meeting;
- the date of the next meeting and the issues to be considered (if known); and
- any recommendations from the Working Group to the MAC.

## 8. Projected Timeline

Step	Date
(1) First meeting (initiation)	November 2021
(2) Workshops to: <ul style="list-style-type: none"> <li>• Review and analyse the requirements for capacity needed to achieve the purpose of the RCM, by defining:               <ul style="list-style-type: none"> <li>○ what system stress situations appear in the WEM;</li> <li>○ the capacity requirements needed to achieve the reliability target; and</li> <li>○ which system stress situations can/should be addressed through the RCM.</li> </ul> </li> <li>• Review the Planning Criterion to:               <ul style="list-style-type: none"> <li>○ identify the reliability target (based on the last review of the Planning Criterion);</li> <li>○ ensure it reflects the purpose of the RCM; and</li> <li>○ ensure it meets the reliability target (now and in future).</li> </ul> </li> </ul>	December 2021 to February 2022

Step	Date
<p>(3) Workshops to inform development of high-level approaches for:</p> <ul style="list-style-type: none"> <li>• assigning CRC; and</li> <li>• setting of the BRCP considering the revised Planning Criterion.</li> </ul> <p>This will include:</p> <ul style="list-style-type: none"> <li>• discussion of modelling outcomes with the RCM Review Working Group; and</li> <li>• consultation on the approaches with the RCM Review Working Group.</li> </ul>	May to June 2022
<p>(4) Workshops to inform development of high-level approaches for:</p> <ul style="list-style-type: none"> <li>• outage scheduling;</li> <li>• the refund mechanism;</li> <li>• Reserve Capacity Testing; and</li> <li>• determination of IRCR.</li> </ul>	June 2022
<p>(5) Workshop to:</p> <ul style="list-style-type: none"> <li>• inform the development of detailed design for the changes to the RCM; and</li> <li>• consider whether any transitional measures are needed, and if so, develop the transitional measures.</li> </ul>	September 2022

## 9. Contact Details

Rule Participants and other stakeholders may contact the RCM Review Working Group Secretariat at [energymarkets@energy.wa.gov.au](mailto:energymarkets@energy.wa.gov.au). Documentation and information related to the RCM Review Working Group will be published on Energy Policy WA's website.





## Agenda Item 9: Scope of Works for the Review of the Allocation of Market Fees and Essential System Services Costs

Market Advisory Committee (**MAC**) Meeting 2021\_11\_02

### Background

During the Energy Transformation Strategy (**ETS**) development and implementation process, some stakeholders identified issues with how Essential System Services (**ESS**) costs will be allocated to Market Participants. However, time constraints during the ETS did not allow the Energy Transformation Taskforce to address all of these concerns.

Further, the MAC maintains a Market Development Forward Work Program to track and progress issues that have been identified by stakeholders. Several issues on the current Market Development Forward Work Program relate to the allocation of Market Fees and Ancillary Services / ESS costs – see Agenda Item 5.

Therefore, the Coordinator of Energy (**Coordinator**) plans to undertake a review of the allocation of Market Fees and ESS costs (**Cost Allocation Review**). The Coordinator plans to conduct the Cost Allocation Review under clause 2.2D.1 of the Wholesale Electricity Market (**WEM**) Rules in 2022 and to develop any WEM Rules resulting from the review.

Clause 2.2D.1(h) of the WEM Rules confers the function on the Coordinator to consider and, in consultation with the MAC, progress the evolution and development of the WEM and the WEM Rules.

Energy Policy WA has developed a Scope of Works for the Cost Allocation Review for consideration by the MAC (**Attachment 1**).

### Recommendation

That the MAC:

- (1) supports the commencement of the Cost Allocation Review; and
- (2) reviews and discusses the proposed Scope of Works for the Cost Allocation Review in Attachment 1.

### Attachments

- (1) Draft Scope of Works for the Review of the Allocation of Market Fees and Essential System Services Costs



# Draft Scope of Works for the Review of the Allocation of Market Fees and Essential System Services Costs

## 1. Introduction

### 1.1 Review Requirements

During the Energy Transformation Strategy (**ETS**) development and implementation process, some stakeholders identified issues with the allocation of Market Fees and Essential System Services (**ESS**) costs to Market Participants. However, time constraints during the ETS prevented the Energy Transformation Taskforce from addressing all of these concerns.

Further, the Market Advisory Committee (**MAC**) maintains a MAC Forward Work Program to track and progress issues that have been identified by stakeholders. Several issues on the current MAC Forward Work Program relate to the allocation of market costs – see Appendix 1.

Therefore, the Coordinator of Energy (**Coordinator**) plans to undertake a review of the allocation of Market Fees and the costs of ESS (**Cost Allocation Review**).

The Coordinator plans to conduct the Cost Allocation Review under clause 2.2D.1 of the Wholesale Electricity Market (**WEM**) Rules in 2022 and to develop any WEM Rules resulting from the review in 2023. Clause 2.2D.1(h) of the WEM Rules confers the function on the Coordinator to consider and, in consultation with the MAC, progress the evolution and development of the WEM and the WEM Rules.

### 1.2 Background

#### 1.2.1 Energy Transformation Strategy

Amending Rules were developed under the ETS to change how the costs of ESS are allocated. These Amending Rules will commence on 1 October 2023.

The Energy Transformation Taskforce undertook extensive consultation on the allocation of ESS costs, including via the ‘Market settlement: Implementation of five-minute settlement, uplift payments and Essential System services settlement’ paper, published on 1 December 2019.<sup>1</sup>

#### 1.2.2 Allocation of Market Fees

The following fees are specified in the WEM Rules:

- Market Fees to recover AEMO’s costs for its market operation services, system planning services and market administration services;
- System Operation Fees to recover AEMO’s costs for its system operation services;

<sup>1</sup> <https://www.wa.gov.au/sites/default/files/2019-12/Information%20paper%20-%20Market%20Settlement%20-%20Implementation%20of%20five-minute%20settlement%2C%20uplift%20payments%20and%20ESS%20settlement%20-%20December%202019.pdf>

- Regulator Fees to recover the Economic Regulation Authority's (**ERA**) costs for its monitoring, compliance, enforcement and regulation services; and
- Coordinator Fees to recover the Coordinator's costs for the Coordinator's functions under the WEM Rules plus the costs and expenses for the Chair of the MAC.

AEMO determines and publishes the Market Fee, System Operation Fee, Regulator Fee and Coordinator Fee rates, which are set to cover the budgeted costs for AEMO, the ERA and the Coordinator, plus any under/over-spend from the previous year.

Each Market Participant is charged these fees based on the Market Fee, System Operation Fee, Regulator Fee and Coordinator Fee rates and their Metered Schedule<sup>2</sup> for all of their Registered Facilities and Non-Dispatchable Loads for all Trading Intervals for the day.

AEMO also charges Application Fees and Reassessment Fees, which are set to recover the average costs of processing each type of application.

### 1.2.3 Allocation of Co-Optimised ESS Costs

From 1 October 2023, there will be five co-optimised ESS:

- Regulation services:
  - Regulation Raise;
  - Regulation Lower;
- Contingency Reserve services:
  - Contingency Reserve Raise;
  - Contingency Reserve Lower; and
- Rate of Change of Frequency (**RoCoF**) Control Service.

The Table in Appendix 2 indicates how the costs for each co-optimised ESS will be allocated as of 1 October 2023, including:

- the risks that will be covered by each ESS;
- a description of each ESS; and
- an indication of how the costs for each ESS will be allocated.

### 1.2.4 Allocation of Other ESS Costs

Other ESS include:

- System Restart Service; and
- Non-Co-optimised ESS (**NCESS**).

Costs for System Restart Services are determined by contracts between AEMO and service providers, and the contract costs are recovered from Market Participants based on the proportion of their Loads' metered consumption to total consumption.

The WEM Rules regarding NCESS are under development and will be Gazetted and implemented in early 2022. NCESS costs will be determined by contracts between AEMO or Western Power and service providers. Western Power will recover the costs for its NCESS contracts via its network tariffs, and it is proposed that, at least initially, AEMO will recover costs for its NCESS

<sup>2</sup> The Metered Schedule is determined for each Facility the net quantity of energy generated and sent-out or consumed by the Facility or Non-Dispatchable Load during the Trading Interval. A single Metered Schedule is determined for each Trading Interval for the Non-Dispatchable Loads without interval meters that are served by Synergy equal to the Notional Wholesale Meter.

contracts from Market Participants based on the proportion of their Loads' metered consumption to total consumption

## 2. Project scope

### 2.1 Objectives

The objectives for the Cost Allocation Review are to:

- (1) develop a method to align the allocation of fees with the causer-pays principle, to the extent practicable and efficient; and
- (2) develop a method to align the allocation of ESS costs with the causer-pays principle, to the extent practicable and efficient; and

### 2.2 Guiding principles

The guiding principles for the Cost Allocation Review are that the fee and cost allocation methodologies should:

- (1) Meet the Wholesale Market Objectives:
  - (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;
  - (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;
  - (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
  - (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and
  - (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.
- (2) Be cost-effective, simple, flexible, and sustainable.
- (3) Provide effective incentives to Market Participants to operate efficiently to minimise the overall cost to consumers.
- (4) Use the causer-pays principle, where practicable and efficient.

Where a causer can be identified for an ESS cost, the causer-pays principle would ensure that costs are allocated to parties in a way that gives the causer an incentive to manage, where practical, their impact on that costs.

For example, it could be argued that the costs for Regulation Services should be recovered from the causers of the frequency deviations, according to their contribution to the requirement for the service, including:

- for Non-Scheduled Facilities, according to their deviation from forecast;
- for Scheduled Facilities, according to their deviation from dispatch; and
- for Loads and Distributed Energy Resources (DER) according to their volatility.

## 2.3 Issues to be Considered

Some questions that are to be considered in the review include:

- (1) Does the current allocation of Market Fees provide an incentive to Market Participants to minimise the quantum of the fees, or would an alternative mechanism be better able to provide such an incentive?
- (2) Is the causer-pays principle adequately applied to the following ESS, and if not, how can cost allocation be improved to align more closely with that principle:
  - (a) Regulation Services;
  - (b) Contingency Reserve Raise Services;
  - (c) Contingency Reserve Lower Services;
  - (d) RoCoF Control Services;
  - (e) System Restart; and
  - (f) NCESS?

Additional issues will be identified in consultation with the stakeholders.

## 3. Stakeholder engagement

The Cost Allocation Review will be undertaken in close consultation with the MAC and with the support of a dedicated MAC Working Group. Participation in the Working Group will not be limited to MAC members.

Under clause 2.5.1C of the WEM Rules, the Coordinator must consult with the MAC before commencing the development of a Rule Change Proposal.

## 4. Project Schedule

The following is a high-level project schedule for the Cost Allocation Review.

Tasks/Milestones	Timing
Consult with the MAC on the scope of works for the review.	2 November 2021
Establish MAC Working Group.	December 2021
Engage consultant(s) to assist with the review.	December 2021-January 2022
Assess whether the current allocation method for the Market Fees and for the costs for each of the ESS are aligned with the causer-pays principle and, if not, whether they should be. Consult with the Working Group on this assessment.	February-March 2022
For the fees and costs that are not aligned with the causer-pays principle: <ul style="list-style-type: none"> <li>• conduct a national and international literature review for how these fees and costs are allocated;</li> <li>• identify the practical options that can be applied in the WEM to allocate fees and each cost;</li> <li>• assess each option against the guiding principles;</li> </ul>	March-April 2022

Tasks/Milestones	Timing
<ul style="list-style-type: none"> <li>• model the impact on the options on Market Participants; and</li> <li>• recommend a preferred option for the fees and each cost.</li> </ul>	
Consult with the Working Group on the cost allocation options, the assessment of the options and the preferred options.	May 2022
Develop the details of the cost allocation methodologies, in consultation with the MAC Working Group.	June-July 2022
Develop and publish a consultation paper on the design for the allocation methodologies and seek stakeholder comments.	August-September 2022
Develop and publish an information paper on the detailed design for the allocation methodologies.	October-December 2022
Develop one or more Rule Change Proposals for consideration by MAC, and approval by the Coordinator and Minister.	January 2023

## Appendix 1: Related Issues from the MAC Forward Work Program

The following four issues from the MAC Forward Work Program relate to the Allocation Review.

**Issue 2:** Allocation of market costs – who bears Market Fees and who pays for grid support services with less grid generation and consumption?

**Issue 16:** 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.

Therefore, the non-BTM Market Participants are subsidizing 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 WEM 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.

**Issue 23:** 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.

In particular, the costs associated with an electricity market reform program should be recovered from entities based on the benefit they receive from the reform. This is expected to increase the visibility of (and therefore incentivise) prudence and accountability when it comes to deciding the need and scope of the reform.

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.

**Issue 35:** 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 daytime trough that is observed on the SWIS when the sun is shining. The issue is that generators that are on are moving around to meet the needs of this generation facility but this generation facility, which could impact system stability, does not pay its fair share of the costs of maintaining the system in a stable manner. That is, they are not the generators that receive its fair apportionment of Market Fees and pay any ancillary service costs but yet they have absolute freedom to generate into the SWIS when the fuel source is available. There needs to be equity in this equation.

## Appendix 2: Allocation of Co-Optimised ESS

ESS	Risk	Service Description	Cost Allocation
<b>Regulation Raise</b>	Generation and load varying from target/forecast within the interval, leading to upward deviation from load forecast that causes the frequency to drop below 50 Hz.	Reserve MW to respond upwards during dispatch interval when load is greater than generation.	Allocated to Market Participants in proportion to their Regulation Contributing Quantity. The Regulation Contributing Quantity is essentially the sum of the absolute values of Metered Schedules for a Market Participant's Semi-Scheduled Facilities, Non-Scheduled Facilities and Non-Dispatchable Loads.  Synergy's Notional Wholesale Meter is treated as a single Non-Dispatchable Load.
<b>Regulation Lower</b>	Generation and load varying from target/forecast within the interval, leading to downward deviation from load forecast during an interval that causes the frequency to go above 50 Hz.	Reserve MW to respond downwards when load is less than generation.	
<b>Contingency Reserve Raise</b>	Loss of generation.	Reserve MW to respond to loss of generation to restore frequency to an acceptable level.	Allocated using the modified runway method. <sup>3</sup> The costs are allocated to Scheduled Facilities and Semi-Scheduled Facilities, based on their energy, Contingency Reserve Raise and Regulation Raise in a Dispatch Interval.
<b>Contingency Reserve Lower</b>	Loss of load.	Reserve MW to respond to loss of load to restore frequency to an acceptable level.	Allocated to Market Participants based on the proportion of their Loads' metered consumption to total consumption per Trading Interval.

<sup>3</sup> The modified runway method is specified in Appendix 2A, as it will apply from 1 October 2023 (see the WEM Rules Consolidated Companion Version (<https://www.wa.gov.au/government/publications/wem-rules-consolidated-companion-version>)).



ESS	Risk	Service Description	Cost Allocation
<b>RoCoF Control Service</b>	<p>Rapid frequency changes can cause problems for automatic detection of frequency changes, and potentially result in damage or trip-off of generators and other system components. The RoCoF Control Service provide inertia.</p>	<p>The required quantity of RoCoF Control Service is a function of:</p> <ul style="list-style-type: none"> <li>• contingency size;</li> <li>• Contingency Reserve quantity; and</li> <li>• total inertia on the system.</li> </ul> <p>RoCoF Control Services has two functions:</p> <ul style="list-style-type: none"> <li>• the Minimum RoCoF Control Requirement to ensure RoCoF is restricted to below maximum limit; and</li> <li>• the Additional RoCoF Control Requirement, to allow trade-off between the quantity of Contingency Reserve Services required and the quantity of inertia required in the power system.</li> </ul>	<p>Allocated in two parts:</p> <ul style="list-style-type: none"> <li>• The Minimum RoCoF Control Requirement is shared equally (1/3 each) between: <ul style="list-style-type: none"> <li>○ Network Operators;</li> <li>○ Generators (Registered Facilities with generation or storage systems); and</li> <li>○ Non-Dispatchable Loads and Scheduled Loads.</li> </ul> <p>The Generator and Load shares are allocated to specific Registered Facilities and Loads in proportion to their Metered Schedules.</p> </li> <li>• The Additional RoCoF Control Requirement (to trade off with Contingency Reserve Services) is allocated to Registered Facilities using the modified runway method.</li> </ul> <p>Members of each group can be exempted from the Minimum RoCoF Control Requirement if they can demonstrate to AEMO that their Facility's Ridethrough Capability is greater than or equal to the RoCoF Safe Limit.</p>

## MAC Meeting 2021\_11\_02 – Agenda Item 10

### Flexible loads, and addressing the causes of low midday demand

#### - draft discussion topics and thoughts – for 2 November, 2021 MAC meeting

Raising the 'belly of the duck' curve => Project 'Belly-up' ☺

Looking for easy wins, low-hanging fruit – to buy more time for other responses & PV growth.

#### Flexible loads (examples):

Two types of flexible load to increase demand:

- Dispatchable (only when needed) – reverse of Reserve Capacity Market (RCM) DSM (dispatchable demand response to reduce load)
- Non-dispatchable flexible load – loads that could move to the middle of the day more often or permanently in response to incentives

#### Large customers:

- Water Corporation (Desal plants, pumping to existing storage, ...). Other water suppliers (Shires etc.)
- Boddington Gold – higher demand overnight
- Milling, grinding - Cockburn Cement – clinker grinding overnight
- Cold stores – currently chill during overnight off-peak
- Chilled-water storage (Uni's, hospitals etc. that already have these systems & re-charge them overnight)
- Others

#### Smaller loads:

- EV charging – some not on TOU tariffs
- Behind-the-meter (BTM) battery charging – PV owners should already be charging over midday
- Pool pumps - PV owners should already be running them over midday. What about owners without PV?
- Electric storage hot water systems, dishwashers, clothes dryers, washing machines
- Ice making machines/facilities
- Others

#### Intermittent loads:

- E.g. alumina or nickel refineries own generation output reduced.

#### Causes of low midday demand:

- BTM solar PV – still subsidised by energy-based network and retail ‘consumption’ tariffs. Water Corporation is installing BTM solar PV because the financial signals incentivise this. Many other businesses are too, besides households.
- Flexible loads not ‘on’ around midday – Why not?
  - Commercial drivers & incentives missing?
    - Bilateral contracts & others (ETACs, ...) not aligned with the low-midday-demand issue, or the afternoon ramp to evening peak?
    - Network and retail tariffs and contract pricing structures – cheap rates overnight (historically appropriate), with little or no incentive to shift any demand, or maximum demand, to other times of the day (e.g. network demand tariff structures)

### Addressing the causes of low demand

What incentives do Retailers and Generators, or wholesale market customers, have to do anything to raise midday demand, typically when WEM energy prices are low or negative?

- Retailers ought to have the incentive to sell more energy during this time because their profit margins would be higher.
- Generators ought to have the incentive to encourage increased demand during this time so that balancing prices are higher.
- Western Power ought to have the incentive to increase demand during this time to load the network more to avoid reverse power and voltage issues (viz. Flexibility Services pilot - could help SWIS low demand too).

But:

- The bulk of the wholesale energy is traded through bilateral contracts rather than via the WEM balancing market and STEM.
- Are the bilateral contracts aligned with WEM prices, or are they hindering the needed focus on low midday demand?
- Synergy’s position? Long on capacity, take-or-pay fuel, electricity purchases from other generators? What financial incentive does it have to raise midday demand?

### Bilateral contracts?

How much do we know about the existing bilateral contracts and the incentives they give to generators, retailers and other larger customers?

*Question for MAC members:*

*Are you aware of any contracts that hinder any market participant’s behaviour to increase demand in the middle of the day when wholesale prices are low, particularly on weekends when lowest demands currently occur?*

*Yes/No without identifying the contracts if there are any.*

If 'yes', we could send out an 'anonymous bilateral contracts survey' to all WEM market participants to ask general questions about the more material contracts (Contract A, Contract B, ....) in a way that doesn't identify the contracts.

### **Joint project or work packages?**

Is there opportunity to adopt a joint project approach (EPWA, AEMO, Western Power, Generators, Retailers, wholesale market customers, ....) to increase the focus on raising midday demand (preferably by shifting existing demand) – addressing the causes rather than just the low demand symptoms?

- Survey re bilateral contracts? Just sending out the survey might increase the focus on lifting midday demand, even if surveys are not returned.
- Encourage re-opening of bilateral contracts where this would be mutually beneficial to the parties to the contract.
- Identify flexible loads and what is needed to get them to be 'on' around midday.
- Encourage Retailers to actively seek to increase midday demand. Ensure the commercial drivers are there.
- Other suggestions?