Government of Western Australia
Department of Mines, Industry Regulation and Safety
Energy Policy WA

Meeting Agenda

Meeting Title:	Market Advisory Committee (**MAC**)
Date:	Tuesday 15 November 2022
Time:	9:00 AM – 11:00 AM
Location:	Online, via TEAMS.

Item	Item	Responsibility	Type	Duration
1	Welcome and Agenda • Conflicts of interest • Competitions Law	Chair	Noting	6 min
2	Meeting Apologies/Attendance	Chair	Noting	2 min
3	Minutes of Meeting 2021_10_11	Chair	Decision	2 min
4	Action Items	Chair	Noting	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	Noting	30 min
	(b) Reserve Capacity Mechanism Review Working Group (**RCMWG**)	RCMRWG Chair	Noting	30 min
	(c) Cost Allocation Review Working Group (**CARWG**)	CARWG Chair	Discussion	30 min
7	Rule Changes			
	(a) Overview of Rule Change Proposals	Chair/Secretariat	Noting	2 min
8	MAC Schedule 2023	Chair/Secretariat	Discussion	2 min
8	General Business	Chair	Discussion	6 Min
	Next meeting: Tuesday 13 December 2022 (moved to a 2:00 PM start)			

Please note, this meeting will be recorded.

Competition and Consumer Law Obligations

Members of the MAC (**Members**) note their obligations under the *Competition and Consumer Act 2010* (**CCA**).

If a Member has a concern regarding the competition law implications of any issue being discussed at any meeting, please bring the matter to the immediate attention of the Chairperson.

Part IV of the CCA (titled "Restrictive Trade Practices") contains several prohibitions (rules) targeting anti-competitive conduct. These include:

(a) **cartel conduct**: cartel conduct is an arrangement or understanding between competitors to fix prices; restrict the supply or acquisition of goods or services by parties to the arrangement; allocate customers or territories; and or rig bids.

(b) **concerted practices**: a concerted practice can be conceived of as involving cooperation between competitors which has the purpose, effect or likely effect of substantially lessening competition, in particular, sharing Competitively Sensitive Information with competitors such as future pricing intentions and this end:

- a concerted practice, according to the ACCC, involves a lower threshold between parties than a contract arrangement or understanding; and accordingly; and
- a forum like the MAC is capable being a place where such cooperation could occur.

(c) **anti-competitive contracts, arrangements understandings**: any contract, arrangement or understanding which has the purpose, effect or likely effect of substantially lessening competition.

(d) **anti-competitive conduct (market power)**: any conduct by a company with market power which has the purpose, effect or likely effect of substantially lessening competition.

(e) **collective boycotts**: where a group of competitors agree not to acquire goods or services from, or not to supply goods or services to, a business with whom the group is negotiating, unless the business accepts the terms and conditions offered by the group.

A contravention of the CCA could result in a significant fine (up to $500,000 for individuals and more than $10 million for companies). Cartel conduct may also result in criminal sanctions, including gaol terms for individuals.

Sensitive Information means and includes:

(a) commercially sensitive information belonging to a Member's organisation or business (in this document such bodies are referred to as an Industry Stakeholder); and

(b) information which, if disclosed, would breach an Industry Stakeholder's obligations of confidence to third parties, be against laws or regulations (including competition laws), would waive legal professional privilege, or cause unreasonable prejudice to the Coordinator of Energy or the State of Western Australia).

Guiding Principle – what not to discuss

In any circumstance in which Industry Stakeholders are or are likely to be in competition with one another a Member must not discuss or exchange with any of the other Members information that is not otherwise in the public domain about commercially sensitive matters, including without limitation the following:

(a) the rates or prices (including any discounts or rebates) for the goods produced or the services produced by the Industry Stakeholders that are paid by or offered to third parties;

(b) the confidential details regarding a customer or supplier of an Industry Stakeholder;

(c) any strategies employed by an Industry Stakeholder to further any business that is or is likely to be in competition with a business of another Industry Stakeholder, (including, without limitation, any strategy related to an Industry Stakeholder's approach to bilateral contracting or bidding in the energy or ancillary/essential system services markets);

(d) the prices paid or offered to be paid (including any aspects of a transaction) by an Industry Stakeholder to acquire goods or services from third parties; and

(e) the confidential particulars of a third party supplier of goods or services to an Industry Stakeholder, including any circumstances in which an Industry Stakeholder has refused to or would refuse to acquire goods or services from a third party supplier or class of third party supplier.

Compliance Procedures for Meetings

If any of the matters listed above is raised for discussion, or information is sought to be exchanged in relation to the matter, the relevant Member must object to the matter being discussed. If, despite the objection, discussion of the relevant matter continues, then the relevant Member should advise the Chairperson and cease participation in the meeting/discussion and the relevant events must be recorded in the minutes for the meeting, including the time at which the relevant Member ceased to participate.

Government of Western Australia
Department of Mines, Industry Regulation and Safety
Energy Policy WA

Minutes

Meeting Title:	Market Advisory Committee (**MAC**)
Date:	11 October 2022
Time:	9:00am –11:04am
Location:	Videoconference (Microsoft Teams)

Attendees	Class	Comment
Sally McMahon	Chair	
Dean Sharafi	Australian Energy Market Operator (**AEMO**)	
Martin Maticka	AEMO	
Aditi Varma	Network Operator	Proxy for Zahra Jabiri
Genevieve Teo	Synergy	
Christopher Alexander	Small-Use Consumer Representative	
Noel Schubert	Small-Use Consumer Representative	
Geoff Gaston	Market Customer	
Patrick Peake	Market Customer	
Timothy Edwards	Market Customer	
Wendy Ng	Market Generator	
Jacinda Papps	Market Generator	
Rebecca White	Market Generator	
Paul Arias	Market Generator	
Geoff Down	Contestable Customer	Proxy for Peter Huxtable
Noel Ryan	Observer appointed by the Minister	
Rajat Sarawat	Observer appointed by the Economic Regulation Authority (**ERA**)	

Also in Attendance	From	Comment
Dora Guzeleva	MAC Secretariat	Observer
Laura Koziol	MAC Secretariat	Observer
Shelley Worthington	MAC Secretariat	Observer
Grant Draper	Marsden Jacob Associates (**MJA**)	Presenter

Also in Attendance	From	Comment
Peter McKenzie	MJA	Observer

Apologies	From	Comment

Item	Subject	Action
1	**Welcome** The Chair opened the meeting at 9:00am with an Acknowledgement of Country. The Chair declared that she had been appointed as a Commissioner to the Australian Energy Market Commission advising there were no perceived conflicts of interest and that she can continue in the role of independent Chair of the MAC. The Chair advised that her position as expert panel member on the WA Electricity Review Board remains current.	
2	**Meeting Apologies/Attendance** The Chair noted the attendance and apologies as listed above.	
3	**Minutes of Meeting 2022_08_23** The MAC accepted the minutes of the 23 August 2022 meeting as a true and accurate record of the meeting. **Action: The MAC Secretariat to publish the minutes of the 23 August 2022 MAC meeting on the Coordinator's Website as final.**	**MAC Secretariat**
4	**Action Items** The Chair noted there were no open action items.	
5	**Market Development Forward Work Program** The paper was taken as read and the Chair noted that the updates in red were to be reviewed and discussed, as follows: • **The Reserve Capacity Mechanism (RCM) Review** To be discussed under agenda item 6(b). • **The Cost Allocation Review (CAR)** To be discussed under agenda item 6(c). • **Future Reviews** To be discussed under agenda item 8.	
6	**Update on Working Groups**	
	(a) AEMO Procedure Change Working Group (APCWG) The paper was taken as read. Mr Maticka confirmed that there was no AEMO procedure change activity since the previous MAC meeting.	

(b) RCM Review Working Group (RCMRWG)

The papers for agenda item 6(b) were taken as read.

Members noted that the item provides an update on the progress and next steps for the RCM Review, including the publication of the Consultation Paper and submissions received, and an updated timetable that captures some of the issues that have been identified and are still to be resolved.

Ms Guzeleva noted that 12 submission were received indicating general support and acknowledging the high importance of the review. Generally the submissions:

- indicated a very high level of support for the addition of the flexibility product to the RCM;
- provided a number of comments on the approach to allocate Certified Reserve Capacity to intermittent generators, and in particular:
    - raised concern that the three identified methods may lead to volatility of outcomes; and
    - sought further investigation of the method proposed by Collgar, without amendments.

Ms Guzeleva advised that, following the closure of submissions, a meeting was held between herself, the Coordinator of Energy (**CoE**), the Australian Energy Council (**AEC**) and the AEC's local members. The AEC considered that the amended Collgar method would lead to unacceptable volatility from an investment point of view. As a result of those discussions and the submissions to the Consultation Paper, Ms Guzeleva noted that:

- work has been replanned to allow for further analysis around the Delta Method, the Collgar method and the amended Collgar method;
- the key objective is to demonstrate to the Government that any selected method does not compromise reliability; and
- the next steps will look at options to reduce volatility.

Mr Alexander sought to clarify the anticipated delay to the original schedule, noting the urgency around some of the system security issues and asked whether international best practice in regards to allocating Capacity Credits had been considered.

- Ms Guzeleva noted that:
    - The delay amounted to two additional months, accounting for the Christmas break.
    - There was no immediate security issue per se because Market Participants have already received Capacity Credits, which apply until 1 October 2023, and there was concern that the current method for assigning capacity credits is quite conservative (i.e. the current

method has been widely criticized as not sufficiently rewarding intermittent generators for what they can provide to the system in terms of reliability).

- With regard to best practice, Ms Guzeleva noted there is a requirement under the rules to reassess the Relevant Level Methodology (**RLM**) every three years. Studies and consultations have been undertaken and the result was that the Effective Load Carrying Capability (**ELCC**) and the Delta Method have been used internationally and appear to be well recognized. However, there may be some differences in the WEM that make results from the Delta Method more volatile, which may not be able to be fully addressed without compromising reliability.
- Ms Guzeleva noted that reliability is paramount and that, while managing volatility is also important for investment, the volatility in the Delta Method is largely caused by volatility in the output of intermittent generators.

Ms Guzeleva noted that submissions also commented on the 14-hour fuel requirement, including how that fuel requirement is applied in practice by AEMO and that it can be better aligned with its original intent.

Ms Guzeleva noted the proposals in the Consultation Paper on how to cover a future availability duration gap (the three Capability Classes replacing the current Availability Classes) attracted a lot of attention, with responses indicating that the five-year fixed availability duration requirement for Class 2 is not enough. As a result, modelling would be undertaken to determine the impact on costs and reliability in the market of five, seven and ten year durations.

- Mr Arias noted that in the meeting papers the schedule had been pushed out and that there were quite a few actions for the implementation of the high emissions technology penalties, and asked if there was any feedback that can be circulated to the MAC or industry.
  - Ms Guzeleva noted that the Draft Statement of Policy Principles: Penalties for High Emission Technologies was discussed at the 9 August 2022 MAC meeting, recorded in the minutes of that meeting, and that the industry views are quite clear.
  - The policy advice to the CoE from the MAC had been presented and factored into a proposal for an amended statement of policy principles that has been submitted to the Minister.
  - The Minister has not provided a final statement of policy principles, but EPWA has commenced work on options

for the penalty arrangements, which will be brought to the December 2022 MAC meeting.

(c) CAR Working Group (CARWG)

The paper was taken as read.

Ms Guzeleva noted that allocation of Market Fees has dominated the discussion at some of the CARWG meetings and that she was seeking to close off that issue today, and to also give an update on the very complex matter of how regulation costs are recovered elsewhere and the methods that the CARWG is looking at.

Ms Guzeleva noted that Market Fees are, in the scheme of things, a very small amount and will hopefully get smaller in the future but that regulation costs are going to increase, so sending signals around those latter costs is very important and should be the future focus of this review.

Mr Draper focused the discussion on the recommendations for each service (slides 5-7). Those services that were agreed by the MAC as lower priority were not covered in detail but recommendations were included on how they should be treated going forward.

- Mr Schubert noted, with regard to the Contingency Reserve Raise, that there should be a mechanism or incentive for generators to look at how they configure on the network and divide their circuits so that a Credible Contingency is lower.
- Ms Guzeleva agreed that, at the moment, there is not a signal for people to do the right thing.

Allocation of Market Fees

Mr Draper noted that the cost allocation mechanism for Market Fees is more to do with equity than to providing price signals to change behaviour to potentially reduce future costs, and that Market Fees make up a very small percentage of total costs.

Mr Draper acknowledged that with increasing amount of Distributed Energy Resources (**DER**) there were going to be changes in terms of how much of these costs is recovered from different types of customers. He noted that, in order to accurately allocate those costs, there would need to be a measure, such as Individual Reserve Capacity Requirements (**IRCR**), to ensure equitable recovery of costs from retailers whose customers have a high proportion of DER.

Mr Draper noted that the Hybrid method was recommended to CARWG at its meeting on 27 September 2022 and the views of the CARWG was mixed. Some generators wanted to understand further how the AEMO's effort/costs were split and why activities related to generators account for the majority of the costs.

Mr Draper indicated that the CARWG generally accepted that Market Fees are really about cost recovery and that the Hybrid method approach would lead to a fairer allocation of costs, with the introduction of IRCR as part of the cost recovery mechanism, and noted that merchant peaking generators would also start to pay a fairer contribution to Market Fees.

Mr Draper noted that it was important to consider the cost to develop and implement changes to the Market Fee allocation methods because it would be inappropriate to incur costs without tangible benefits to the market, and that further work was required on the treatment of storage to make sure there was no double counting.

Mr Draper noted that some generators were in favour of allocating all Market Fees to final customers, and that there were some legitimate arguments for why that should occur, but also noted that customers cannot really respond to the charges and the fees will not affect their decisions. Other generators supported the existing cost allocation method, and the small customer representative supported the WEM Hybrid method, which indicates that there is a diverse range of opinions on this topic.

- Ms Guzeleva noted that the CARWG discussions went back to the guiding principles of the review, and that there was no evidence of any tangible benefits to changing the current allocation method. She also noted that making changes would incur costs for AEMO, including in the settlement systems, and that participants will incur costs because they will need to change their downstream contracts and systems.
- Ms Guzeleva noted that the cost of Market Fees is relatively small and, in the current environment, there was a question whether maintaining focus on this issue is of any benefit to the WEM. Ms Guzeleva noted that she was looking for the MAC to close off the issue of Market Fees noting that the MAC work program inherited this issue with the transfer of the market governance function to the CoE which was the reason for it being in scope.
- The Chair noted that the small use customer representative supported the WEM Hybrid method and sought further information on why that was the case. She also noted that, unless there is a benefit that outweighs the cost of implementation, it might be difficult to support a change from the current method.
    - Mr Alexander indicated that there would be a concern if additional costs are passed through to consumers when they are not in a position to manage that.

  - Mr Schubert noted that he supported the Hybrid method providing that the benefits are greater than the costs, but otherwise would prefer to keep the current WEM method.
- Mrs Papps supported retaining the current WEM method and noted that Alinta's rough estimate to implement the Hybrid method would be around $100,000 to make required changes to the billing and reconciliation tools plus legal costs for changing contracts.
- Mr Peake noted that a consequence of increasing the fees of a plant that is running at zero capacity factor is that it becomes the benchmark plant, and one would assume that these fees would roll into the Benchmark Reserve Capacity Price (**BRCP**), which could lead to substantial costs to the community.
  - Mr Draper agreed and noted that merchant peaking generators would have no way to pass the cost through to retailers and customers, and would have to wear these costs, so the BRCP would need to be adjusted to enable them to recover these costs.
- Mr Gaston noted that this review was initially about equity, not efficiency, and there is no logic in trying to get more efficient or to avoid these costs. Mr Gaston supported the Hybrid method because this review came out of the fact that people with DER are avoiding or reducing their fees and that these fees are then passed to customers that do not have DER – this is an equity issue.
  - Mr Draper agreed that the Hybrid method is fairer from the perspective that it addresses the DER issue.
- Ms White added that the load side under the Hybrid method is allocated on IRCR, which is not equivalent to allocating to generators based on the full sent out/ nameplate capacity, and questioned whether the method applied to the loads need to be matched for generators.
  - Ms Guzeleva noted that introducing IRCR relates to Mr Gaston's point in capturing photovoltaics (PVs) in particular. This was chosen as one way to charge consumers on the basis of their contribution to the peak, which is not when PVs normally export their energy, to reflect the fact that they avoid some of the costs during the rest of the day.
  - Mr Gaston agreed with Ms White's comment and noted that, while IRCR seems to be the most reasonable way of doing this, IRCR probably also needs a review, adding that this is being considered in the RCM Review.

The Chair sought the MAC's views noting there appeared to be some support for retaining the current WEM method because the costs of implementing the Hybrid method are expected to outweigh the benefits, as there may be equity benefits but potentially no efficiency benefits resulting from this method.

- Mr Schubert agreed that this was the case.
- Mr Peake also agreed, noting there was a need to consider whether equity continues to get worse as the market continues to develop and change.
- Mrs Papps agreed and noted that, given there are only limited tangible benefits at this stage, and the current work streams and overall workload, there will be a benefit of pausing this issue while the issue of IRCR is dealt within the RCM Review.
- Ms Alexander supported Mrs Papps comment.

The Chair asked Ms Guzeleva and Mr Draper how to close the issue, noting there was a preference to not continue to incur effort unless it was considered that there are likely to be benefits that have not been currently identified that outweigh the costs.

Ms Guzeleva noted that there will always be winners and losers from changing a cost allocation method and that this would boil down to a cost-benefit analysis, and since the Market Fees are so small, she considered that there is no justification for continuing discussion of Market Fees.

The Chair noted that the consultation paper will propose to retain the current WEM method because, although there may be some benefits to the Hybrid method from an equity perspective, the benefits are not expected to outweigh the costs. EPWA can then consider responses to the consultation paper to determine if/when further work needs to be done.

Allocation of Frequency Regulation Costs

Mr Draper noted that analysis had been provided to the CARWG on the current NEM Causer-Pays method and the Tolerance Method (slides 21 and 22) and that both methods provide some signals to generation for forecast accuracy and to better control their generation. Mr Draper also noted that the CARWG discussed consistency with what is happening within the NEM, as there would be efficiency benefits for AEMO if a cost allocation methodology similar to the NEM's was implemented in the WEM.

Mr Draper noted that the New NEM Causer-Pays method, that is currently out for consultation and will be implemented in the NEM, was raised with the CARWG but that participants needed further information to understand what method.

- Ms Guzeleva noted that further work was to be done but that this was very important because there is currently no signal for participants to reduce their volatility to reduce regulation costs.
- Ms Guzeleva noted that the current NEM Causer-Pays method is extremely complex and that a session was being arranged for AEMO to explain the new NEM Causer Pays method to the CARWG. Ms Guzeleva noted that it is important that what is implemented is simplified to the extent practicable.

The Chair noted the benefit in doing this further work and that it was largely supported by the CARWG.

- Ms Varma asked what timeframes were been considered, noting that AEMO would probably be already very busy working on the new settlement systems.
    - Ms Guzeleva replied that it was not intended to have a method fully developed before the new market start in October 2023. Any new method would need to be carefully managed to not put any additional pressure on the implementation of the new market. She also noted that AEMO had issued a paper in September 2021 that supported a method that reduces volatility and costs for regulation, and while there was reason to have concerns about implementation pressures, AEMO has expressed support for this to happen as a priority.
- Mrs Papps supported doing further work and noted that the NEM rule change will take about 3 years to implement, and if a similar time is taken for the WEM, this might overlap with the implementation of 5 minute settlement. Mrs Papps indicated that, given the current workload, it is important to align all these things to make sure the focus is on the issues that are most valuable to the market.
    - Ms Guzeleva agreed with Mrs Papps regarding the need to carefully consider timing of implementation, and noted that the planning for this piece of work has not yet been done, as it requires the policy before considering timeframes and synergies with other work streams. Ms Guzeleva noted that Frequency Regulation is very important when moving to the new net zero targets, because significant regulation costs could be incurred.

The Chair noted the support for further work on the new NEM Causer-Pays Method would be beneficial and should start, but that the timeframes of introducing this change need to be considered alongside the greater body of work.

- Ms White added that it was important to keep investigating allocation of Frequency Regulation costs, and asked if there

was consideration to delaying 5 minutes settlement, noting the perverse outcomes that are obviously occurring in the interim two years and any decision to delay the 5 minute settlement is very material.

The Chair noted that there was general support from the MAC to do further work on the new NEM Causer-Pays method on the basis that there are expected to be benefits from implementing that method.

Allocation of Contingency Reserve Raise Costs

Mr Draper noted that there is a potential issue of attributing too much Contingency Reserve Raise cost to a facility depending on how the facility is configured, noting the configuration of Collgar.

- Ms Guzeleva noted that this was a very limited issue in scope and should not be difficult to address, bearing in mind the impact on AEMO's current implementation work.
- Mrs Papps tentatively supported the direction discussed by the CARWG but would like a more detailed definition of Credible Contingencies to be inserted in a procedure to understand that and what it means for this recommendation.

Allocation of Contingency Reserve Lower Costs

Mr Draper noted the need to send a price signal for Contingency Reserve Lower Costs and the recommendation to apply a modified runway method to incentivise participants to consider options to reduce the size of the credible risk for large facilities.

- Ms Guzeleva noted that it was an important issue to look at and that it is worth including a recommendation on this in the consultation paper, and that MAC support was being sought to state that this issue needs to be addressed.
- Mrs Papps noted that Alinta would need to see a cost-benefit analysis as part of that consultation paper given that the runway method is quite complex.

The Chair summarised that there was general support from the CARWG to do further work and to include a recommendation in the consultation paper. She also noted that there are expected benefits from such an approach but that the costs of implementing any change should also be considered. This should look at not just the impact on the fees to different players, but also how the recommended approaches stack up against the principles for the review.

- Ms Guzeleva noted that the consultation paper would examine each option against the principles and make a recommendation.
- Mr Sharafi noted that there was also a system security issue to consider, not just the cost.

Item	Subject	Action
	The Chair noted that this was an important theme to identify in the next steps in the consultation paper, including the resilience of some of these methods to future circumstances. • Ms Guzeleva agreed noting that sustainability is one of the principles of the review. **Allocation of other Essential System Services (ESS) Costs** Mr Draper noted that allocation of other ESS costs had not been discussed in great detail by the CARWG, and that slides 41-43 proposed how this would be dealt with. • Ms Guzeleva noted that allocation of other ESS costs was previously presented at the June 2022 MAC meeting, and that all of those issues were agreed to be low priority, so the CARWG was not spending a lot of time on them.	
7	**Rule Changes** **(a) Overview of Rule Change Proposals** The paper was taken as read. • Mr Edwards noted that with the mandatory Generator Performance Standards (GPS) requirements, an active balancing generator gets turned off as part of the testing of the GPS and noted that there seems to be a hole in the rules in making balancing submissions for that, leading to those generators needing to put in a Forced Outage for a GPS test. There is no provision for a consequential outage, which affects the facility's outage count and costs. o Ms Guzeleva noted that GPS was introduced as part of the Energy Transformation Strategy work and there were still ongoing changes, including in Tranche 6 of the amending rules. Ms Guzeleva noted that she would discuss this with Mr Edwards to see whether it falls under the Energy Transformation Strategy work or if a formal rule change process is required. o Mr Edwards agreed to do so as part of the process.	
	Action: Mr Edwards to contact EPWA regarding treatment of GPS tests in the outage framework	**Mr Edwards (October 2022)**
8	**Future Reviews** The paper was taken as read. The Chair noted that feedback is being sought from the MAC on the draft Scopes of Work, and the priority and timing for: • the review of the Procedure Change Process; and • the review of the Participation of Demand Side Response in the WEM. Ms Guzeleva noted that the review of the Procedure Change Process has been on the MAC work program since the	

governance changes and EPWA developing the work program. It was originally planned to be completed in 2022 but priorities were reassessed and it is now planned for 2023.

- Ms White noted that she was unaware that there are issues with the existing process and that she understood that parties like Western Power will have a similar process for their procedures in the new market, and questioned if this review was essential at this point in time.
- Mr Maticka noted that concerns were raised in the MAC (around three years ago) regarding transparency of AEMO's procedure change process. AEMO has changed some internal processes to make sure there is more communication when changes are made to procedures and is not aware of any issues since then. Mr Maticka noted that this should probably be reviewed on a regular basis to make sure that it is actually the most efficient process, but he would not deem it a high priority.
- Mrs Papps agreed with Ms White's comments about workload and noted that the outstanding concern is the gap when a participant proposes a procedure change to one of the procedure administrators, but there is no obligation for the procedure administrator to do anything with the request, whereas the Coordinator is required to decide whether to progress a Rule Change Proposal. Ms White agreed with this point.
- Ms Guzeleva noted that this issue was raised during the governance changes and is an important issue, and that most of the new procedures are being made through the expedited processes under the transitional rules. As more issues, that would ordinarily be in the WEM Rules, are placed in procedures for convenience and expediency, Ms Guzeleva had concerns that, with the 15-day consultation on procedure changes, proper attention is not paid to the changes. She was concerned that, as a result, there will be a flood of concerns in the future which will require a proper process to manage. Ms Guzeleva noted that this was an important issue that needed to be addressed but also noted that this was a matter of timing given the current work program.
- Mr Alexander asked if there are things in the procedures that directly affect small customers, particularly those with DER, and if there is a formal small consumer role in that process.
    - Mr Maticka replied that this depends on the procedure, noting that procedures always have to be consistent with the WEM Rules, but there was a facility to escalate differing opinions to the MAC and that was part of the

reason why AEMO updates the MAC on procedure changes.

- Mr Alexander noted that, as a small use customer representative, it is hard enough to engage with the rule change process, let alone procedures. As the market changes and more important and directly consequential things are put in the procedures, it will be important to make sure that there is engagement and participation.
- Mr Maticka acknowledged Mr Alexander's point, noting that there is an enormous amount of material and small operators have other things to worry about than looking at procedures. Mr Maticka commented that, if someone did not have capacity to keep on top of what is happening in the market as a direct Market Participant, then they would probably have to go through some sort of representation.

The Chair noted that formalising the role of consumer engagement in the procedure change process could be included in the review and asked if this is a priority issue before market start in October 2023.

The Chair noted that it might fall back to EPWA to outline the resources that would be expected and for committee members to determine if they are able to participate in a review process at this time.

- Ms White asked if the expedited process for procedure changes would be retained, and if so, then this may not be a pressing issue.
- Ms White noted that, if we proceed with this review, the role for guidelines should also be considered, noting that GPS guidelines are tricky because they are not procedures and they hold less weight.
- Ms Guzeleva noted that a transitional rule allows for six months after market start to continue with the transitional procedure change process, so there was no deadline to do this by market start. Ms Guzeleva noted that the point about guidelines versus procedures is a good point and should be included in the scope, as should Mr Alexander's comment regarding customer representation.

Ms Guzeleva asked for MAC members to provide in writing any additional things they want to include in the scope, and said that EPWA will amend the scope accordingly.

Ms Guzeleva noted that sufficient time has not been spent on the participation of loads in any of the market components and that there are things that may prevent loads from properly participating. Ms Guzeleva asked if members feel this is a priority given that loads would have an important role to play in our market, which is clear in the RCM Review. Ms Guzeleva asked if

Item	Subject	Action
	the review of Demand Side Response should commence in the new year. • Mr Schubert and Mr Alexander agreed that it is very important that the review progresses as soon as resources allow. • Mr Schubert noted that the market is short of capacity this coming summer and there are loads out there that could help. Mr Schubert noted that certification and dispatch baseline for Demand Side Programs (DSP) and treatment of IRCR are listed as out of scope and asked about the process to address barriers that might be raised by the way we certify DSPs or treat IRCR. o Ms Guzeleva noted that these things are out of scope because they are examined in the RCM Review. o Ms Guzeleva noted that Mr Schubert first point is very important and will amend the scope to talk about scenarios for participation and analysis of those, noting that the MAC will probably establish a working group and will have to make sure that load participants are part of that group. • The Chair noted that this was considered to be a high priority issue. • Ms Teo noted that the RCM Review covers some of these issues. • Ms Varma noted that it would also be useful to consider the potential network services that DSPs can provide to ensure there is clarity between market services provided by DSPs and network services.	
	Action: MAC Members are to provide comment by 25 October on the Scopes of Work for: • **the review of the Procedure Change Process; and** • **the review of the Participation of Demand Side Response in the WEM.**	**MAC Members (25/10/2022)**
9	**General Business** Mr Gaston sought further information about AEMO's call for Supplementary Reserve Capacity (**SRC**), noting that the total cost could be around $180 million and that small use customers will incur these costs. He also noted that he was not sure about all the rule changes that went through when the refund regime for Forced Outages was last changed. Mr Gaston indicated that he was happy to have an email circulated with more information or for AEMO to present its reasons for the SRC to the MAC.	

Item	Subject	Action
	• Mr Sharafi noted that AEMO held a session specifically for the SRC process, that information is on the AEMO website, that he could email information to the MAC and that he could meet with Mr Gaston if further information is needed. • Ms Guzeleva noted that she could send the relevant rules to Mr Gaston or could meet with him, but there was not much else AEMO could do with the constraints the market is facing this summer. The next MAC meeting is scheduled for 15 November 2022.	
	Action: AEMO to contact Mr Gaston to discuss what further information is required for the SRC process and is to provide the MAC with any agreed additional information.	**AEMO (October 2022)**
	Action: Mr Gaston is to contact EPWA regarding his questions about the rules on the refund regime for Forced Outages.	**Mr Gaston (October 2022)**

The meeting closed **at 11:04am.**

Government of Western Australia
Department of Mines, Industry Regulation and Safety
Energy Policy WA

Agenda Item 4: MAC Action Items

Market Advisory Committee (**MAC**) Meeting 2022_11_15

Shaded	Shaded action items are actions that have been completed since the last MAC meeting. Updates from last MAC meeting provided for information in RED.
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
8/2022	MAC Secretariat to publish the minutes of the 23 August 2022 MAC meeting on the Coordinator's Website as final.	MAC Secretariat	2022_10_11	**Closed** The minutes were published on the Coordinator's Website on 12 October 2022.
9/2022	Mr Edwards to contact EPWA regarding treatment of GPS tests in the outage framework.	Mr Edwards	2022_10_11	**Open** Mr Edwards to provide an update on the status of this action.
10/2022	MAC Members are to provide comment by 25 October on the Scopes of Work for: • the review of the Procedure Change Process; and • the review of the Participation of Demand Side Response in the WEM.	MAC members	2022_10_11	**Closed** EPWA did not receive any comments on either Scope of Works.

Item	Action	Responsibility	Meeting Arising	Status
11/2022	AEMO to contact Mr Gaston to discuss what further information is required for the Supplementary Reserve Capacity (**SRC**) process and is to provide the MAC with any agreed additional information.	AEMO	2022_10_11	**Closed** Mr Sharafi met with Mr Gaston 18 October 2022 to discuss the reasons for the call for SRC and the AMEO website has been updated to include the missing information.
12/2022	Mr Gaston to contact EPWA regarding his questions about the rules on the refund regime for Forced Outages.	Mr Gaston	2022_10_11	**Closed** Mr Gaston met with Ms Guzeleva and Ms Koziol from EPWA on 8 November 2022.

Government of Western Australia
Department of Mines, Industry Regulation and Safety
Energy Policy WA

Agenda Item 5: Market Development Forward Work Program

Market Advisory Committee (**MAC**) Meeting 2022_11_15

1. Purpose

- To provide an update on the Market Development Forward Work Program provided in Table 1, including:
    - the Chair of the Reserve Capacity Mechanism Review Working Group (**RCMRWG**) is to update the MAC on the progress of the Reserve Capacity Mechanism (**RCM**) Review since the last MAC meeting – see Agenda Item 6(b); and
    - the Chair of the Cost Allocation Review Working Group (**CARWG**) is to update the MAC on the progress by the CARWG since the last MAC meeting – see Agenda Item 6(c).
- To provide an update on other issues to be addressed via the Market Development Forward Work Program provided in Table 4:
- Changes to the Market Development Forward Work Program provided at the previous MAC meeting are shown in red font in the Tables below.

2. Recommendation

The MAC Secretariat recommends that the MAC notes the updates to the Market Development Forward Work Program.

3. Process

Stakeholders may raise issues for consideration by the MAC at any time by sending an email to the MAC Secretariat at energymarkets@dmirs.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.

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.	• The MAC has established the RCM Review Working Group (**RCMRWG**). Information on the Working Group is available at https://www.wa.gov.au/government/document-collections/reserve-capacity-mechanism-review-working-group, including: o the Terms of RCMRWG, as approved by the MAC; o the list of RCMRWG members; o meeting papers and minutes from the RCMRWG meeting on 20 January 2022, 17 February 2022, 17 March 2022, 5 May 2022, 2 June 2022, 16 June 2022, 14 July 2022 and 2 July 2022; and o meeting papers from the RCMRWG meeting on 13 October 2022. • The Chair of the RCMRWG will update the MAC on the progress on the RCM Review since the last MAC meeting, including on the analysis of options to allocate Certified Reserve Capacity (**CRC**) for intermittent generators – see Agenda Item 6(b). • The following papers have been released and are available on the RCM Review webpage at https://www.wa.gov.au/government/document-collections/reserve-capacity-mechanism-review: o the Scope of Works for the review, as approved by the Coordinator; o the Stage 1 Consultation Paper; o the Paper on the Review of International Capacity Mechanisms; and o submissions on the Stage 1 Consultation Paper.
Cost Allocation Review	A review of:	• The MAC has established the Cost Allocation Review Working Group (**CARWG**). Information on the CARWG is available at https://www.wa.gov.au/government/document-collections/cost-allocation-review-working-group, including:

Table 1 – Market Development Forward Work Program		
Review	**Issues**	**Status and Next Steps**
	• the allocation of Market Fees, including behind the meter (**BTM**) and Distributed Energy Resources (**DER**) issues; • cost allocation for Essential System Services; and • Issues 2, 16, 23 and 35 from the MAC Issues List (see Table 3).	o the Scope of Work for the review, as approved by the Coordinator; o the Terms of Reference for the CARWG, as approved by the MAC; o the list of CARWG members; o meeting papers and minutes from the CARWG meetings on 9 May 2022, 7 June 2022 and 30 August 2022; and o meeting papers from the CARWG meetings on 27 September 2022 and 25 October 2022. • The Chair will update the MAC on the progress by the CARWG since the last MAC meeting, including on the analysis of options to allocate Frequency Regulation costs – see Agenda Item 6(c).
Procedure Change Process Review	A review of the Procedure Change Process to address issues identified through Energy Policy WA's consultation on governance changes.	• The MAC discussed a draft Scope of Work for this review at its meeting on 11 October 2022. MAC members provided comments on the draft Scope of Works at that meeting, and were asked to provide further comments by email. EPWA did not receive any further comments. • EPWA will update the Scope of Works to reflect the MAC discussions and, following the Coordinator approval of the Scope, will provide the final scope and a timeline for the review to the MAC in early 2023.
Forecast quality	Review of Issue 9 from the MAC Issues List (see Table 4).	• This review has been deferred.
Network Access Quantity (**NAQ**) 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).	• This review will be commenced after completion of the RCM Review.

Table 1 – Market Development Forward Work Program		
Review	**Issues**	**Status and Next Steps**
Short Term Energy Market (**STEM**) Review	Review the performance of the STEM to address issues identified during implementation of the ETS.	• This review has been deferred.
Review of the Participation of Demand Side in the Wholesale Electricity Market (**WEM**)	The scope of this review is to: • identify the different ways that Loads/Demand Side Response can participate across the different WEM components; • identify and remove any disincentives or barriers for Loads/Demand Side Response participating across the different WEM components; and • identify any potential for over- or under-compensation of Loads/Demand Side Response (including as part of 'hybrid' facilities") as a result of their participation in the various market mechanisms.	• The MAC discussed a draft Scope of Work for this review at its meeting on 11 October 2022. MAC members provided comments on the draft Scope of Works at that meeting, and were asked to provide further comments by email,. EPWA did not receive any further comments. • EPWA will update the Scope of Work to reflect the MAC discussions and, following approval by the Coordinator of Energy, will provide the revised scope and a timeline for the review to the MAC in early 2023.

Table 2 – Issues to be Addressed in the RCM Review			
Id	**Submitter/Date**	**Issue**	**Status**
1	Shane Cremin November 2017	**IRCR calculations and capacity allocation** There is a need to look at how IRCR and the annual capacity requirement are calculated (i.e. not just the peak intervals in summer) along with recognising 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'.	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	**Capacity Refund Arrangements:** The current capacity refund arrangement is overly punitive as Market Participants face excessive capacity refund exposure. This refund exposure is more than what is necessary to incentivise the Market Participants to meet their obligations for making capacity available. Practical impacts of such excessive refund exposure include: • compromising the business viability of some capacity providers – the resulting business interruption can compromise reliability and security of the power system in the SWIS; and • excessive insurance premiums and cost for meeting prudential support requirements.	To be considered in the RCM Review.

Table 2 – Issues to be Addressed in the RCM Review			
Id	**Submitter/Date**	**Issue**	**Status**
		Bluewaters recommended imposing seasonal, monthly and/or daily caps on the capacity refund. Bluewaters considered that reviewing capacity refund arrangements and reducing the excessive refund exposure is likely to promote the Wholesale Market Objectives by minimising: • unnecessary business interruption to capacity providers and in turn minimising disruption to supply availability; which is expected to promote power system reliability and security; and • unnecessary excessive insurance premium and prudential support costs, the saving of which can be passed on to consumers.	
30	Synergy November 2017	**Reserve Capacity Mechanism** 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: • assessment of reserve capacity requirement criteria, reserve capacity capability and reserve capacity obligations; • IRCR assessment; • Relevant Demand determination; • determination of NTDL status; • Relevant Level determination; and • assessment of thermal generation capacity. The review will support Wholesale Market Objectives (a) and (d).	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	**Issues with Reserve Capacity Testing** • 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. • There is a discrepancy between the number of Trading Intervals for self-testing vs. AEMO testing. • There is ambiguity in the timing requirements for a second test when the relevant generator is on an outage. • There is ambiguity on the number of Capacity Credits that AEMO is to assign when certain test results occur.	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	**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.)	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	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 subsiding the BTM generation in the WEM. Subsidy does not promote efficient economic outcome. Rapid growth of BTM generation will only exacerbate this inefficiency if not promptly addressed. Bluewaters recommends changes to the 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.	To be considered in the Cost Allocation Review.
23	Bluewaters November 2017	Allocation of Market Fees on a 50/50 basis between generators and retailers may be overly simplistic and not consider the impacts on economic efficiency. In particular, the costs associated with an electricity market reform program should be recovered from entities based on the benefit they receive from the	To be considered in the Cost Allocation Review.

Table 3 – Issues to be Addressed in the Cost Allocation Review			
Id	**Submitter/Date**	**Issue**	**Status**
		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.	
35	ERM Power November 2017	**BTM generation and apportionment of Market Fees, ancillary services, etc.** The amount of solar PV generation on the system is increasing every year, to the point where solar PV generation is the single biggest unit of generation on the SWIS. This category of generation has a significant impact on the system and we have seen this in terms of the 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.	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.

MARKET ADVISORY COMMITTEE MEETING, 15 November 2022

FOR DISCUSSION

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	30 November 2021	21 November 2022 (to be confirmed)
Market Procedures for discussion		WEM Procedure: Certification of Reserve Capacity for the 2022 and 2023 Reserve Capacity Cycles. AEMO will have a preliminary discussion of this proposal with the MAC – see attachment 1.

3. AEMO PROCEDURE CHANGE PROPOSALS

The status of AEMO Procedure Change Proposals is described below, current as at 3 November 2022. 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**	**Indicative Date**
None				

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PROPOSED CHANGES TO THE WEM PROCEDURE: CERTIFICATION OF RESERVE CAPACITY FOR THE 2022 AND 2023 RESERVE CAPACITY CYCLES

The purpose of the Reserve Capacity Mechanism is to provide price signals for investment in the Wholesale Electricity Market (WEM), thereby facilitating the efficient entry or exit of capacity to ensure Power System Security and Power System Reliability is maintained. The accurate assignment of Certified Reserve Capacity (CRC) is critical to provide those price signals, and to ensure reliability of supply in the South West Interconnected System.

On 23 September 2022, due to a combination of issues including ongoing fuel supply limitations, AEMO called for tenders from potential suppliers of supplementary capacity for the coming Hot Season (December 2022 to March 2023).

AEMO is currently considering the implications of these issues for the CRC process. The CRC application period for the deferred 2022 Reserve Capacity Cycle (2024-25 Capacity Year) opened on 18 October 2022. Given the importance of the CRC process for the WEM and Market Participants, AEMO is currently drafting proposed amendments to the WEM Procedure: Certification of Reserve Capacity for the 2022 and 2023 Reserve Capacity Cycles (CRC Procedure)[1] to clarify the supporting evidence required in relation to fuel supplies and the factors that determine restrictions on fuel availability. Market Participants are required to provide this information in their CRC applications under clause 4.10.1(e)(v)(ii) of the Wholesale Electricity Market Rules (WEM Rules), and AEMO uses this information when determining its reasonable expectation of the amount of capacity likely to be available under clause 4.11.1(a) of the WEM Rules. AEMO is seeking input from MAC members on the proposed amendments.

AEMO will publish a Procedure Change Proposal[2] before the MAC meeting date to allow informed discussion. In addition, AEMO will hold a AEMO Procedure Change Working Group forum to seek feedback, and Market Participants will have an opportunity to provide submissions during the Procedure Change Process.

[1] https://aemo.com.au/-/media/files/electricity/wem/procedures/certification-of-reserve-capacity-for-the-2022-and-2023-reserve-capacity-cycles.pdf

[2] Procedure change documents will be available on AEMO's website once published.

Government of Western Australia
Department of Mines, Industry Regulation and Safety
Energy Policy WA

Agenda Item 6(b): Update on the RCM Review

Market Advisory Committee (**MAC**) Meeting 2022_11_15

1. Purpose

- The Chair of the Reserve Capacity Review Working Group (**RCMRWG**) to update the MAC on the activities of the RCMRWG since the last MAC meeting.

2. Recommendation

The MAC is to:

(1) Note the update on the status of the RCMRWG's assessment of options for penalties for high emission technologies.

(2) Note the update on the status of EPWA's work on certification of intermittent generators.

(3) Provide feedback on the planned further analysis for the certification of intermittent generators.

3. Process

3.1 Penalties for high emission technologies

- The Minister provided a draft statement of policy principles for the introduction of penalties for high emission technologies in the Wholesale Electricity Market (**WEM**) to the Coordinator requesting that:
  - the Coordinator seeks the MAC's feedback on the draft statement; and
  - options for implementing penalties for high emission technologies are assessed as part of the Reserve Capacity Mechanism (**RCM**) Review.
- The Coordinator discussed the draft statement with the MAC at its 9 August 2022 meeting.[1]
- On 16 August 2022, the MAC provided its advice on the draft statement to the Coordinator.
- On 29 August 2022, the Coordinator provided advice to the Minister, based on the MAC's feedback.
- On 13 October 2022, the RCMRWG discussed options for implementing penalties for high emission technologies in the context of the following constraints for the policy implementation, which are provided in the draft statement:
  - there will be a penalty;
  - the penalty will apply to new and old facilities;
  - the penalty will be implemented through the WEM;

[1] Out-of-Session Meeting Papers.pdf (www.wa.gov.au)

- the policy will seek to achieve net zero cost impact on consumers; and
- the accumulated penalties will be used to incentivise firming solutions.

- The key preference at the RCMRWG meeting was to base the penalty on energy produced and to implement the penalty outside of the RCM.
- RCMRWG members were invited to provide comments and alternative options by COB Friday 28 October 2022. EPWA received feedback from Perth Energy, Noel Schubert (small-use customer representative), AEMO, and Alinta Energy. The following alternative approaches were suggested:
  - AEMO and Alinta Energy sighted an alternative approach similar to that applied in the UK capacity market, where high emission technologies with emissions above a certain limit do not receive Capacity Credits; and
  - Noel Schubert suggested the use of national large-scale RECs (**LGC**s) to implement the policy and introduce incentives for firming technologies in the WEM.
- EPWA is currently assessing the identified approaches for discussion with the RCMRWG on 24 November 2022. The outcome of this meeting will be discussed at the 15 December MAC meeting.

3.2 Certification of intermittent generators

- Three alternative methods for assigning Certified Reserve Capacity (**CRC**) to intermittent generators were proposed in the Stage 1 Consultation Paper:
  - the ELCC delta method;
  - Alinta's method, as amended by EPWA; and
  - Collgar's proposed 'Hybrid' method, as amended by EPWA.
- The RCMRWG has not met to discuss the certification of intermittent generators since the publication of the Stage 1 Consultation Paper, but has been consulted on the approach for further analysis via email.
- Feedback from stakeholders on the Consultation Paper and approach to the analysis indicated:
  - concerns about the potential for volatility of CRC under all proposed methods;
  - support for further analysis on Collgar's proposed Hybrid method; and
  - lack of appetite for further assessment of the method proposed by Alinta.
- Further quantitative analysis of the proposed CRC methods, using common assumptions and inputs to ensure comparability, indicates:
  - setting the fleet value as proposed by Collgar (as the average of the annual ELCCs) would likely not meet the system reliability objectives of the RCM;
  - substantial additional analysis is needed to:
    - further assess Collgar's proposed Hybrid method;
    - assess an additional method of using the IRCR periods to determine the CRC for intermittent generators; and
    - assess options to minimise the volatility of CRC allocations to increase investor certainty without negatively impacting on system reliability.

- **Attachment 1** provides a summary of the initial results from the analysis undertaken so far, for discussion with the MAC. The purpose of this presentation is to:
    - inform the MAC about the progress of the analysis; and
    - seek feedback from the MAC on the plan for further analysis.
- A RCMRWG meeting is scheduled for 15 December 2022 to discuss the outcome of the further analysis. The outcome of this meeting will be discussed at the MAC meeting in February 2023.
- Further information on the RCM Review is available on the RCM Review webpage at https://www.wa.gov.au/government/document-collections/reserve-capacity-mechanism-review.

4. Attachments

(1) Reserve Capacity Mechanism Review Working Group – MAC Update – 2022_11_15

Government of **Western Australia**
Energy Policy WA

Reserve Capacity Mechanism Review Working Group

MAC update – 2022_11_15

15 November 2022

Working together for a **brighter** energy future.

1. CRC Allocation Methods and Stakeholder Feedback

Goal

To identify a Certified Reserve Capacity (**CRC**) allocation method for intermittent generators that:

1. ensures that the system reliability objective is met;
2. adequately assesses facilities' contribution to system reliability;
3. minimises year-to-year volatility for investors;
4. is simple and easy to understand;
5. ideally can be replicated by potential investors and other stakeholders; and
6. ideally can be adapted for use on Demand Side Programmes (**DSPs**) and is consistent with Individual Reserve Capacity Requirement (**IRCR**).

CRC assessment approach

The stage 1 consultation paper proposed three methods for assessing the reliability contribution of intermittent facilities:

1. ELCC Delta method;
2. The Adjusted Non-Probabilistic Method – proposed by Alinta and adjusted by EPWA;
3. The Adjusted Hybrid Method – proposed by Collgar and as adjusted by EPWA.

EPWA proposed two major changes to the methods proposed by Alinta and Collgar:

1. Determine contribution to reliability based on the contribution over the reference period as a whole instead of using the average contribution in the individual years of the period. This is to avoid giving inappropriate weight to performances during years without actual system stress events.
2. Using the Load for Scheduled Generation (**LSG**) adjusted for the assessed facility's output to identify relevant intervals of system stress. This is to account for the diminishing contribution to system reliability of intermittent facilities with similar output profiles.

Before commencing analysis, EPWA circulated a further methodology paper setting out the proposed approaches.

Stakeholder Feedback

Responses to the consultation paper and the approach to analysis paper raised three key points:

1. The main concern raised was the potential for year-to-year variation in the output of the proposed methods. Collgar presented analysis that the Adjusted Hybrid Method would be more volatile than the Delta Method
2. Stakeholders asked to assess the Hybrid Method as originally proposed by Collgar
3. Alinta requested to not further investigate the non-probabilistic method.

2. Performance and Volatility

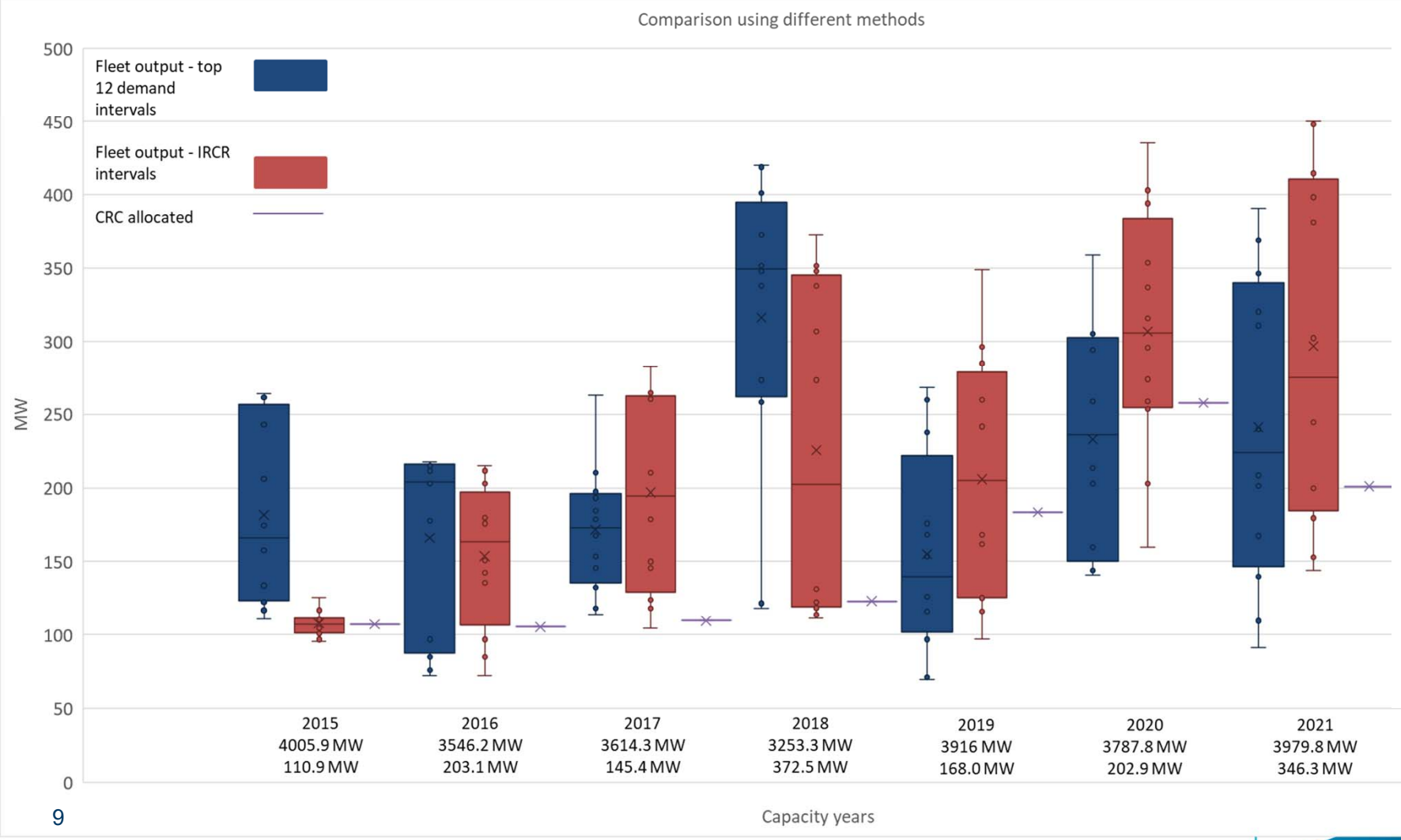
Volatile Output means Volatile CRC Levels

- The output of intermittent generators is inherently uncertain, varying from interval-to-interval and from year-to-year.
- No CRC allocation method will perfectly predict the output of an intermittent facility in a future period of system stress, based on historical output data – CRC allocation will always be an estimate of the expected contribution.
- Volatility of generation output is the driver of volatility in CRC allocation. A firm facility would receive the same CRC in each year under any of these methods.
- Customers are the ones affected when an intermittent facility performs at less than its allocated CRC during times of system stress – customers will pay for capacity that is ultimately not available.

Exploring Performance

- The chart on the next slide compares fleet CRC values and actual facility output during the 12 highest demand intervals and the 12 IRCR intervals:
  - In recent years, the intermittent generation fleet has outperformed its Relevant Level Method (**RLM**) CRC level in system stress events
  - Fleet performance values represent the actual intermittent generation facilities in operation at that date – i.e. no estimated data from expert reports has been included
  - In 2019, one peak demand interval is from the winter period (June), all others are from the summer period

Performance During Peak Demand Intervals



Note:

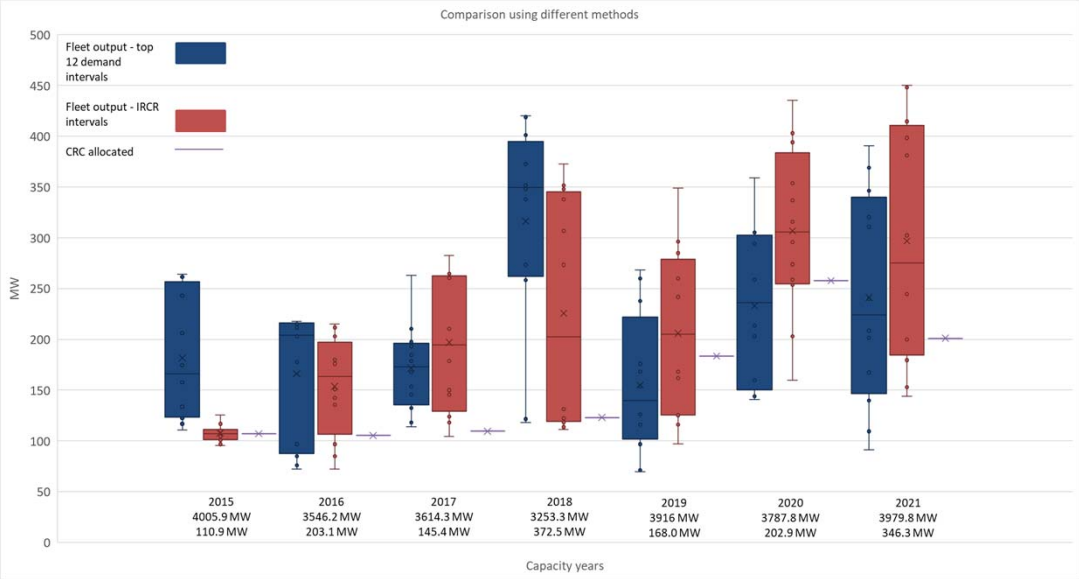
- Whiskers show maximum and minimum fleet performance in the intervals
- Circles show other data points
- Boxes show 25th and 75th percentile range, with a line across the middle for the median.
- Crosses show the mean
- Text below the capacity year labels is:
  - MW demand during the peak interval of the year
  - MW fleet performance in that interval

Volatility in Performance

The chart shows that:

- Fleet performance varies significantly between years
- Fleet performance varies significantly between high stress intervals
- IRCR intervals are, in some cases, significantly different from the peak demand intervals
- The year with best performance is the year with lowest peak demand

This volatility in facility output is the underlying factor driving volatility in CRC allocation under any method



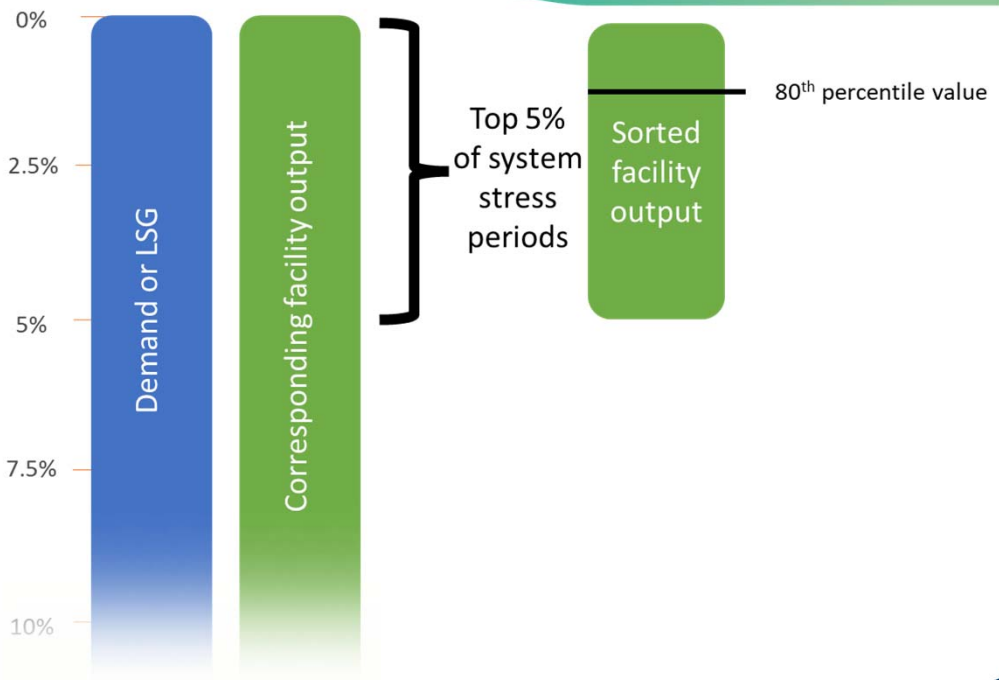
2. Hybrid Method Parameters

Hybrid Method

The Hybrid Method uses the fleet ELCC to determine the total CRC to be allocated

It then allocates that fleet ELCC based on comparative facility performance in selected intervals, using a combination of percentage and percentile as follows:

1. Calculate system stress for each historical period using either:
   a) **Load for scheduled generation** (LSG): demand – total intermittent generation + candidate facility generation **(LSG =** SySt**)**
   b) **Peak demand, (Demand =** SySt**)**
2. Sort trading periods by system stress (highest to lowest)
3. Take a **percentage** of trading intervals from the start of the list (for example the top 5%)
4. Take the facility's un-curtailed output in the selected trading intervals, and sort the facility's output from highest to lowest
5. The facility's output at the chosen **percentile** of ordered periods is the facility's CRC



Hybrid Method results are very sensitive to the choice of parameters

The Hybrid Method can yield significantly different results depending on the choice of LSG or demand, and the selected percentage/percentile combinations

Parameters: Percentages and Percentiles

- The tables show that different parameters result in different winners and losers:
  - using LSG favours biogas facilities
  - using demand allocates less to biogas facilities, and less to solar (except in a handful of specific cases)
- Results for wind are relatively insensitive to using LSG or Demand, and wind allocation is higher than the Delta Method in all cases.
- High percentages favour wind, while low percentages favour solar.

Total allocated capacity credits (MW)

Load for scheduled generation

Wind		Percentile 60	65	70	75	80	85	90
Percentage	0.05%	174.7	175.2	173.3	168.9	165.0	164.4	165.0
	0.10%	173.4	169.4	163.5	162.2	162.9	163.1	163.7
	1%	173.6	175.4	177.1	177.5	173.5	169.9	166.3
	5%	173.3	176.4	177.7	177.9	175.5	171.9	167.2

Solar		Percentile 60	65	70	75	80	85	90
Percentage	0.05%	1.0	1.2	3.8	9.1	14.6	15.6	15.5
	0.10%	1.2	6.1	13.8	16.4	16.6	16.9	17.4
	1%	-	0.0	0.2	1.1	6.3	11.3	16.2
	5%	-	0.1	0.4	1.7	5.4	10.2	16.0

Biogas		Percentile 60	65	70	75	80	85	90
Percentage	0.05%	12.5	11.8	11.1	10.2	8.6	8.2	7.6
	0.10%	13.6	12.7	10.9	9.6	8.6	8.2	7.0
	1%	14.6	12.7	10.9	9.6	8.4	6.9	5.7
	5%	14.9	11.7	10.1	8.6	7.3	6.1	5.0

Total allocated capacity credits (MW)

Demand

Wind		Percentile 60	65	70	75	80	85	90
Percentage	0.05%	166.3	168.1	168.7	172.3	172.8	172.8	166.9
	0.10%	168.5	167.9	170.0	166.6	159.5	157.8	157.1
	1%	181.8	180.0	177.7	176.4	174.2	166.4	163.6
	5%	182.8	183.1	182.3	179.9	176.8	173.3	165.8

Solar		Percentile 60	65	70	75	80	85	90
Percentage	0.05%	13.7	12.8	12.9	11.0	10.7	11.1	17.7
	0.10%	13.3	14.5	13.2	17.1	24.8	26.8	27.9
	1%	1.5	3.8	6.6	8.1	10.5	18.5	21.5
	5%	0.0	0.2	1.4	4.1	7.4	11.3	19.0

Biogas		Percentile 60	65	70	75	80	85	90
Percentage	0.05%	8.2	7.2	6.5	4.9	4.6	4.3	3.5
	0.10%	6.4	5.8	5.0	4.5	3.9	3.5	3.2
	1%	4.8	4.3	3.9	3.6	3.5	3.3	3.1
	5%	5.3	4.8	4.5	4.2	3.9	3.6	3.3

Parameters: Measure of System Stress

- This means that the parameters chosen for the Hybrid Method today may not be appropriate in future years
- Using demand instead of LSG results in a slightly larger difference from the Delta Method outcomes

LSG = SySt

Capacity credits allocated differently to delta		Percentile						
		60	65	70	75	80	85	90
Percentage	0.05%	41.60	41.41	36.59	29.76	26.44	27.00	23.88
	0.10%	30.54	24.62	16.98	**15.26**	15.65	18.22	21.89
	1%	35.59	34.45	35.68	35.25	32.04	30.57	24.56
	5%	37.55	37.32	38.38	37.65	35.09	31.87	28.54

Demand = SySt

Capacity credits allocated differently to delta		Percentile						
		60	65	70	75	80	85	90
Percentage	0.05%	29.03	35.01	34.13	48.11	42.75	38.26	32.54
	0.10%	41.70	40.49	41.35	36.19	27.44	**26.83**	27.54
	1%	50.53	46.27	41.57	40.02	37.47	32.23	29.20
	5%	50.74	48.93	46.62	43.23	39.76	35.41	29.65

Parameters Over Time

- The difference in results from using LSG and Demand increases over time, as intermittent generation increases and demand moves away from middle of the day
- While there are some demand peaks during daylight hours, the highest LSG peaks begin to occur only after dark – meaning solar receives very little or no CRC when using the LSG= SySt method

Load for scheduled generation - 2050

Capacity credits allocated to solar		Percentile						
		60	65	70	75	80	85	90
Percentage	0.05%	-	-	-	-	-	-	-
	0.10%	-	-	-	-	-	-	-
	1%	-	-	-	-	-	-	13.03
	5%	-	-	-	-	-	4.24	44.83

Demand - 2050

Capacity credits allocated to solar		Percentile						
		60	65	70	75	80	85	90
Percentage	0.05%	-	-	0.47	110.16	163.38	339.09	372.62
	0.10%	-	-	48.62	137.58	307.37	471.51	606.36
	1%	-	-	-	39.75	306.06	557.53	777.67
	5%	-	-	-	-	1.75	141.12	579.20

3. Mitigating Volatility

Mitigating Volatility Between Years

- EPWA proposed its amendments to the methods proposed by Alinta and Collgar due to concern that averaging the output of individual years could endanger system reliability by giving undue weight to performance in non-stressed times
- Initial analysis shows that – for the data available – calculating the fleet ELCC for each year and averaging the output would give approximately the same CRC figure as the value calculated for the period as a whole, but this may not be true for other periods

Scenario	2016	2017	2018	2019	2020	2015-20 (period)	2015-20 (average)
Fleet ELCC (% of nameplate)	16.79%	16.48%	16.70%	11.00%	15.63%	15.39%	15.32%

- Any method for reducing volatility should not further disconnect CRC allocations from performance
- EPWA is open to smoothing out year-to-year volatility in CRC allocation (to increase certainty for investment) but considers that the fleet CRC calculated for the whole period should provide a ceiling for the CRC allocated in any given year

Further Analysis

None of the methods assessed to date address the core dilemma of ensuring CRC reflects contribution to system reliability while mitigating volatility between year

Additional analysis is required to further assess:

- the Delta Method and the Hybrid Method
- using current IRCR periods to calculate intermittent CRC
- options to minimise year-to-year volatility while mitigating any negative impacts on system reliability, including:
  - averaging across multiple individual years
  - averaging across multiple individual years, excluding outliers
  - The Delta Method, excluding outliers
  - regression analysis to identify weekend and public holiday days with conditions which would have been peak intervals if occurring on a weekday, scaling these days accordingly, and including them in the Delta Method

What are MAC's views on this planned further analysis?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Energy Policy WA

Agenda Item 6(c): Update on the Cost Allocation Review Working Group

Market Advisory Committee (**MAC**) Meeting 2022_11_15

1. Purpose

To update the MAC on the progress of the Cost Allocation Review.

2. Recommendation

That the MAC:

(1) notes the update provided below and in the attached slide pack (**Attachment 1**) regarding further progress made by the Cost Allocation Review Working Group (**CARWG**) on 25 October 2022; and

(2) endorses the proposed way forward for assessment of methods for allocation of Frequency Regulation costs (see slide 14 of Attachment 1).

3. Background

The CARWG met on 25 October 2022 and discussed:

- options and recommendations for allocating Frequency Regulation costs;
- the New MEM Causer-Pays Method to allocate Frequency Regulation costs; and
- results of preliminary analysis of the application of the New MEM Causer-Pays Method in the Wholesale Electricity Market (**WEM**).

4. Next Steps

• CARWG meeting	22 November 2022
• MAC to review a draft Consultation Paper	13 December 2022
• publish the Consultation Paper	Mid December 2022
• submissions due on the Consultation Paper	February 2023
• MAC to review a draft Information Paper	March 2023
• publish the Information Paper	April 2023
• draft any resulting WEM Amending Rules and consult with the CARWG and the MAC	May-June 2023

5. Attachments

(1) Cost Allocation Review - Allocation of Frequency Regulation Costs

Government of **Western Australia**
Energy Policy WA

Cost Allocation Review – Frequency Regulation Cost Recovery Issues

Presentation to Market Advisory Committee (MAC)

15 November 2022

Grant Draper / Peter McKenzie
Marsden Jacob Associates

Working together for a **brighter** energy future.

Agenda

- Timeline and purpose
- Options for allocating Frequency Regulation costs
- The NEM Causer-Pays Method:
  - The Existing Method
  - The New Method
  - Impact of different methods on cost recovery in the WEM
- Consideration of the New NEM Causer-Pays Method in the WEM
- Proposed path forward
- Next Steps

Timeline and Purpose

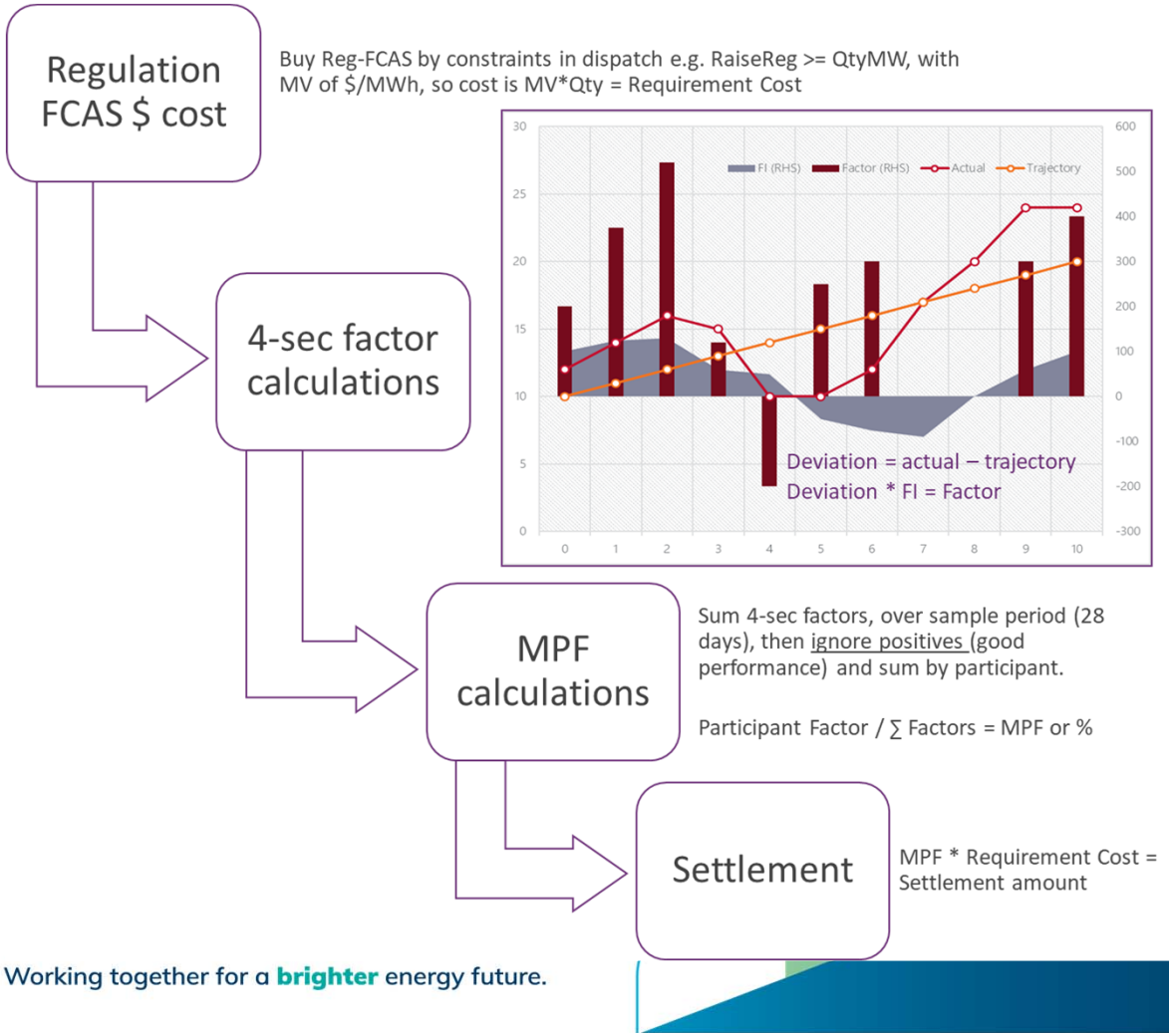
Steps/Tasks	Duration/Timing
Step 1 – Policy Assessments	
(a) Literature review of the methodologies to allocate Market Fees and ESS costs in other jurisdictions	Mid-April to Mid-May 2022
(b) In consultation with the MAC Working Group, assess whether, and to what extent, the current allocation method 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	Mid-May to Mid-June 2022
Step 2 – Practicability Assessments	
In consultation with the MAC Working Group, for the fees and costs that are not aligned, or not fully aligned, with causer-pays principle: • Identify the options that can be practically and efficiently applied in the WEM to allocate the Market Fees and each ESS cost • Assess each option against the guiding principles • Model the impact of each of the options on Market Participants • Recommend a preferred option for the allocation of the Market Fees and each ESS cost	July-September 2022
Step 3 – Methodology Development	
Develop the details of the cost allocation methodologies in consultation with the MAC Working Group	September-October 2022
Develop and publish a consultation paper on the design for the allocation methodologies and seek stakeholder comments	November-January 2023
Develop publish an information paper on the detailed design for the allocation methodologies	March 2023
Step 4 – Formal Rule Change	
Develop one or more Rule Change Proposals for consideration by MAC, and approval by the Coordinator and Minister	April 2023

Options for Allocating Frequency Regulation Costs

- The MAC noted the CARWG's progress at its meeting on 11 October 2022 and agreed that the New NEM Causer-Pays Method should be considered further
- The CARWG met on 25 October 2022 to consider:
  - how the New NEM Causer-Pays Method works
  - the impact that the New NEM Causer-Pays Method would have in the WEM

The Existing NEM Causer-Pays Method

- The existing NEM Causer-Pays Method is a cost allocation method for Reg FCAS costs, based on how 4-second unit deviations from a straight-line dispatch trajectory compares to a central measurement
- This method is much complicated by use of:
  - a 28-day sample period, calculation of regional residual deviation, complex portfolio/registration class netting and aggregation rules
  - pre-calculated MPFs, that are then “sliced & diced” to match “local” requirements

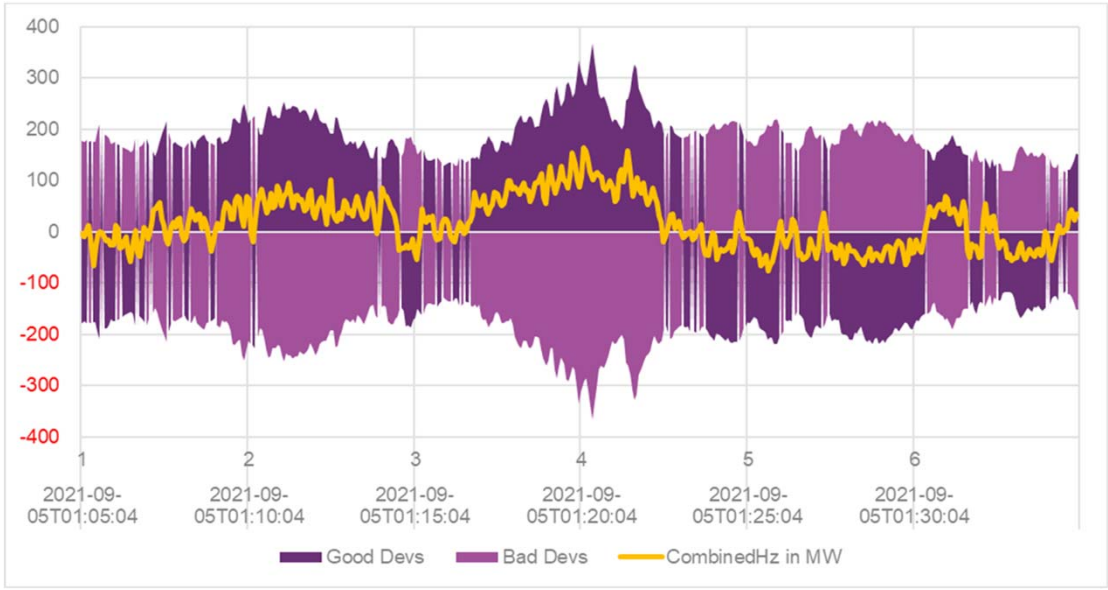


The New NEM Causer-Pays Method

Key elements:

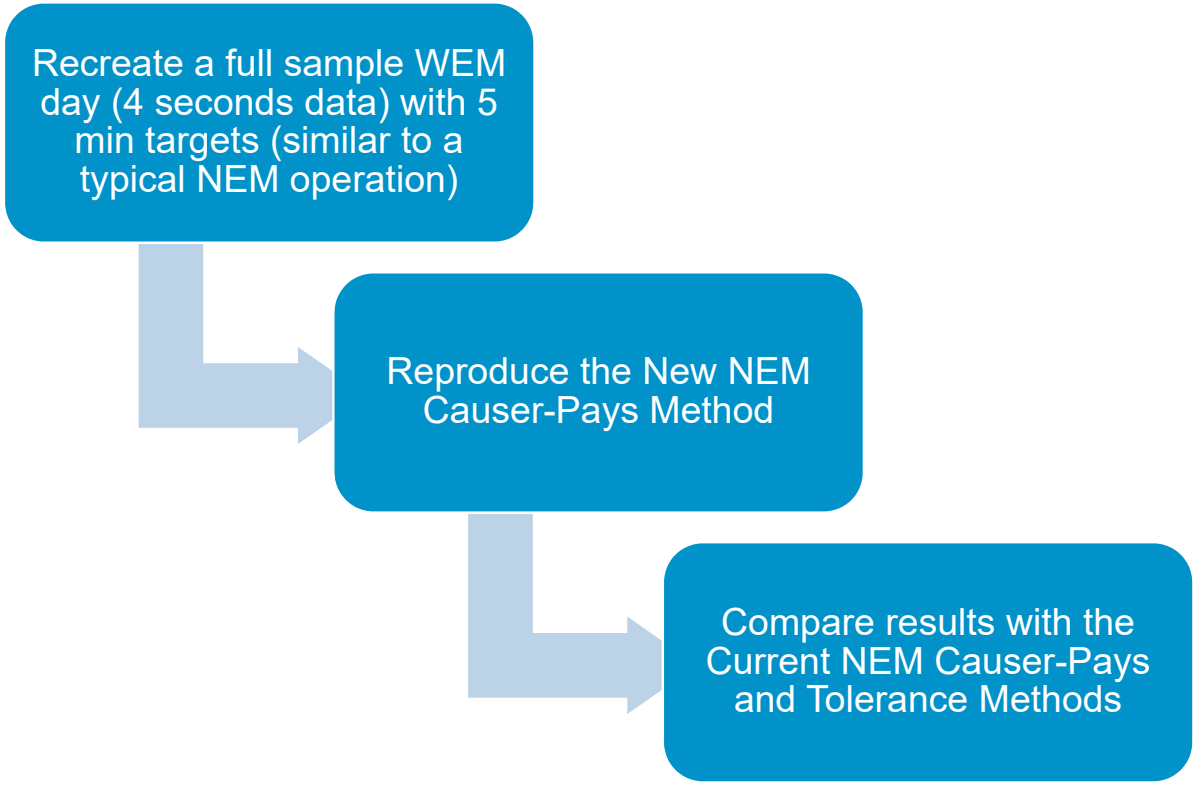
- Frequency performance payments will be made to Market Participants who obtain positive contribution factors in a trading interval
  - Currently, positive contribution factors are ignored for a single generator (netted off against each other only for a generation portfolio)
- The yellow line is an indicator of system frequency
  - Good deviations (dark purple) that contribute to control system frequency and reduce a deviation make a positive contribution and will receive a frequency performance payment
- The costs of frequency performance payments will be allocated to market participants who obtain negative contribution factors for a trading interval (bad deviations in light purple)

Calculating 4 second performance in the NEM



- The arrangements for the allocation of costs for the enablement of regulation services will be made more transparent and more reflective of the real time use of regulation services (i.e. 7-day billing period replaces current 28 days billing period).
- Commencement of the New Causer-Pays methodology in the NEM will occur on 8 June 2025
- This rule changes significantly simplifies the application of the NEM Causer-Pays method to the WEM but is nevertheless still complex

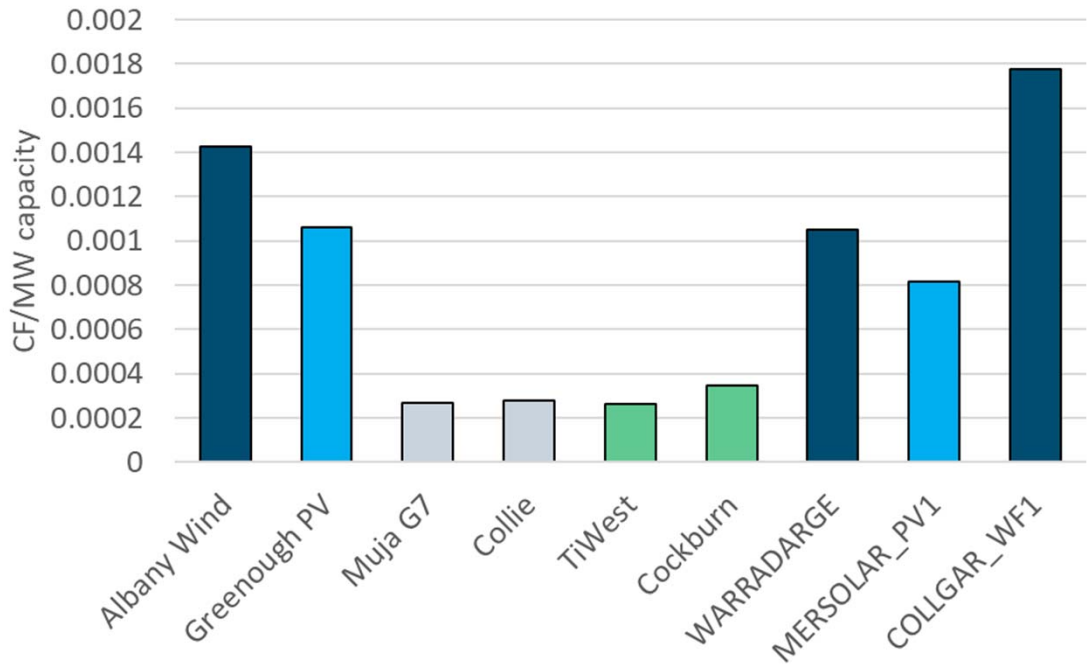
Estimating the Impact of the New NEM Causer-Pays Method in the WEM



New NEM Causer-Pays Method – WEM Causer Pays Factors

Causer-Pays factor per MW of capacity, after scaling to sample day 11/03/2022

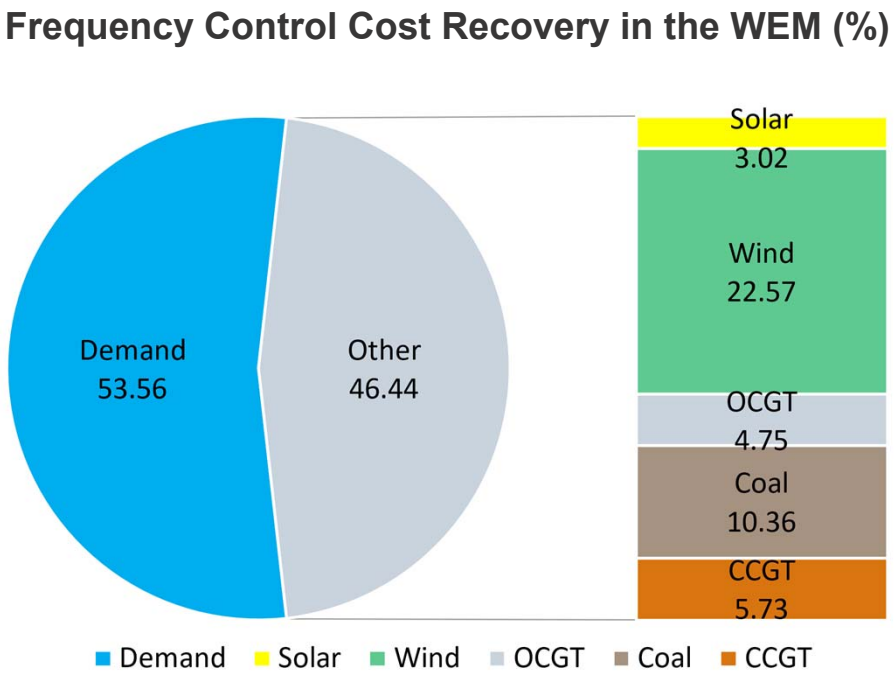
- Similar to the other methods, renewables had higher causer-pays factors for each MW of capacity installed



New NEM Causer-Pays Method – Sample Day 11/03/2022

Results for sample day 11/03/2022

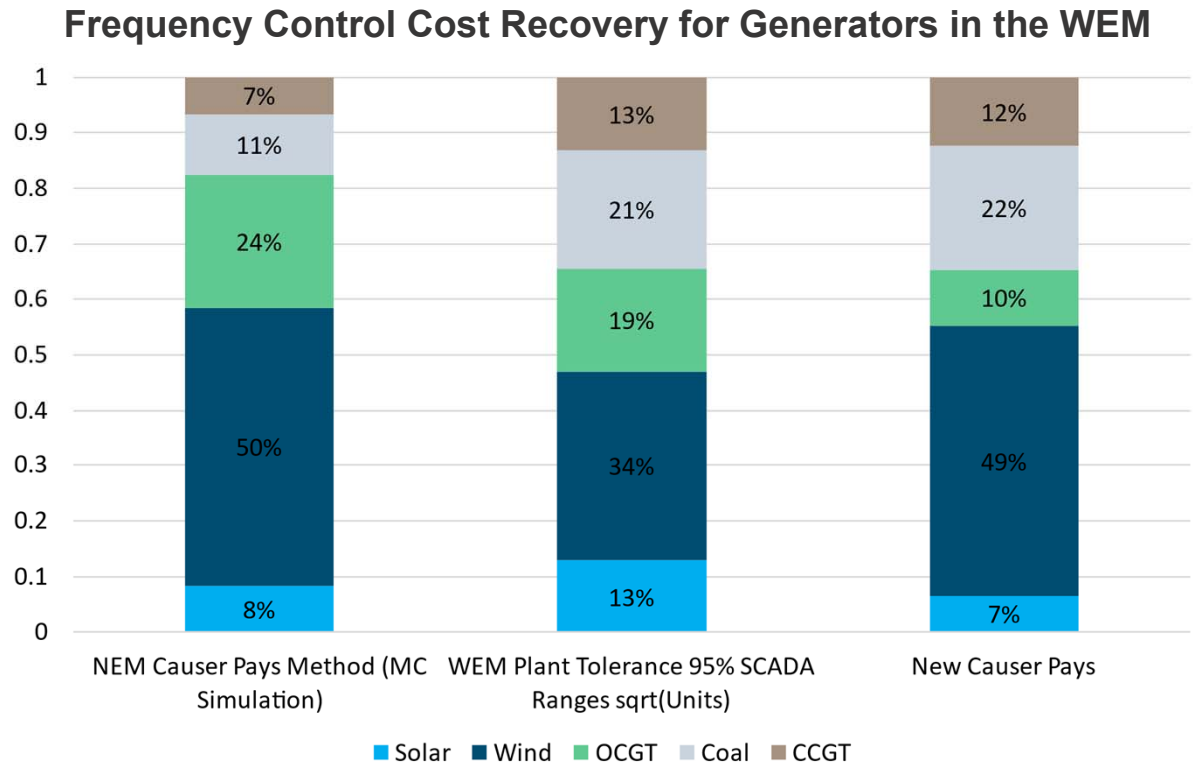
- The New NEM Causer-Pays Method tends to assign more costs to demand, based on a small sample set, compared to the other methods (i.e., the Existing Causer-Pays Method and the Tolerance Method)



New NEM Causer-Pays Method – Comparison of Methods

Comparison of alternative methods to allocate Frequency Regulation costs in the WEM (generation only)

- The Tolerance method results in higher cost recovery from solar plant and lower cost recovery from wind plant compared to the NEM Causer-Pays Method (Current and New)
- The two NEM Causer-Pays Methods have similar outcomes



Note: sample restricted to generators ≥ 30 MW

Consideration of the New NEM Causer-Pays Method in the WEM

- The new methodology will effectively compensate parties (via payment incentives) for providing primary frequency response (PFR)
  - there are currently no payments to provide PFR in the WEM, as PFR is required under the Technical Rules (the Generator Performance Standards in the new WEM), and there are currently no plans to compensate Market Participants for PFR
- The current Tolerance Ranges in the WEM provide incentives for Market Participants to minimise deviations from dispatch targets – the ERA can impose penalties if Tolerance Ranges are exceeded

Consideration of the New NEM Causer-Pays Method in the WEM

- The New NEM Causer-Pays method is still to be finalised
  - it is not finalised or tested in practice and will not be implemented in the NEM until 2025
  - its impact on future Frequency Regulation requirements, and its costs and benefits in the NEM are unknown
  - it is difficult to quantify potential costs and benefits in the WEM
  - at a glance, this method appears to be complex
- LFAS (and in the future Frequency Regulation services) in the WEM enable Market Participants to provide secondary frequency response (SFR) and to be compensated for providing those services
- The New NEM Causer-Pays methodology would be another market mechanism to incentivise Market Participants to contribute to minimising the causes of frequency deviations.

Consideration of the New NEM Causer-Pays Method in the WEM

- There is a risk that Market Participants will respond to the New NEM Causer-Pays Method and ‘over-correct’ for potential frequency deviations and cause ‘actual’ frequency deviations that will need to be managed via further dispatch of Frequency Regulation services
- Adoption of the new NEM Causer-Pays methodology in the WEM could require changes to regulatory standards in the WEM:
  - PFR (so it can work in parallel with the New NEM Causer-Pays Method)
  - adjustments to, or discontinuing, the Tolerance Range framework
- The WEM is a small, highly concentrated market – the market-based New NEM Causer-Pays Method may create incentives for Market Participants to manipulate responses to maximise financial returns
  - potential consequence that the WEM does not deliver efficient market outcomes (e.g. because of inefficient dispatch)
  - may create a need for additional market power mitigation arrangements

Proposed Way forward on Frequency Regulation Cost Allocation

It is recommended that the MAC endorse:

- Deferring consideration of adopting the New NEM Causer-Pays method until after it has been successfully implemented in the NEM and the benefits have been demonstrated/quantified
    - Existing WEM technical requirements (i.e. PFR, Tolerance Range framework) can also be reviewed to cater for the adoption of the New NEM Causers-Pays Methodology
- Re-considering AEMO's proposed Tolerance Method to allocate Frequency Regulation costs for an interim period, from an appropriate commencement date (TBD) until a determination can be made on the New NEM Causer-Pays Method and that method can be implemented
    - The Tolerance Method may be more consistent with existing WEM technical requirements and proposed market power mitigation mechanisms (see the Appendix for a recap of Tolerance Method)

Next Steps

- Develop preferred approach for allocating Frequency Regulation costs in the WEM:
  - Assess the method to apply until the new NEM Causer Pays Method can be assessed and, potentially, implemented. Options include:
    - AEMO's proposed Tolerance Method (following the start of new WEM arrangements, ~2025)
    - current method
  - Longer term – reassess adoption of the New NEM Causer-Pays method once it is finalised and after successful introduction in the NEM in 2025 and some reasonable period in operation
    - Assess in ~2027 for implementation in ~2028/29
  - Incorporate above approach into Consultation Paper

Questions?

Appendix

Recap on the Tolerance Method to Frequency Regulation Cost Recovery

WEM PFR Requirements

The key technical requirements* are:

- All dispatchable generating units must operate continuously in a frequency responsive manner unless otherwise instructed. Non-dispatchable units need only provide a lower response
- Maximum allowable droop is 4%.
- Maximum allowable deadband is 50 millihertz (mHz) (typically implemented symmetrically at 50±25 mHz)
- Applies up to 85% of maximum output, though some units apply response across their full range
- Thermal units must sustain up to 10% raise and 30% lower services
- Units must achieve 90% of their response in < 6 seconds (thermal), <30 seconds (hydro), or < 2 seconds (non-dispatchable). Active response must be sustained for ≥ 10 seconds

* https://www.erawa.com.au/electricity/electricity-access/western-power-network/technical-rules/approved-technical-rules

Recap on Tolerance Concept to Frequency Regulation Cost Recovery

Dispatch Tolerance applies to Scheduled and Semi-Scheduled Facilities to bound the range of allowable operation associated with a Dispatch Target or Dispatch Cap.

- Scheduled Facilities:
  - Upper and Lower bounds
- Semi-Scheduled Facilities:
  - When issued a Dispatch Instruction (ESS)
    - Upper and Lower bounds
  - When issued a Dispatch Cap (while constrained)
    - Upper bound

The current approach to Tolerance Range is applied according to AEMO's published Tolerance Range Review:

For Scheduled Generators:

TR (MW) = (+/-) MAX (6, MIN [5% NPC, 4*RR])

Where:

- *NPC* is the nameplate capacity of the Scheduled Generator, expressed in MW, using the value set in Standing Data **[Appendix 1(b)(ii)]**; and
- *RR* is the ramp rate of the Scheduled Generator, expressed in MW/min, using the value set in Standing Data **[Appendix 1(b)(v)]**.

7.10.1. A Market Participant must comply with the sent-out Dispatch Target or the sent-out Dispatch Cap, Essential System Service Enablement Quantities and Ramp Rate in the most recently issued Dispatch Instruction applicable to its Registered Facility for the Dispatch Interval.

7.10.2. A Market Participant is not required to comply with clause 7.10.1 if:

(a) such compliance would endanger the safety of any person, damage equipment or breach any applicable law;

(b) the actual Injection or Withdrawal of the Registered Facility does not, at any time the Dispatch Instruction applies:

i. vary, by more than the applicable Tolerance Range or Facility Tolerance Range, from a linear profile between the Injection or Withdrawal of the Facility at the start of the Dispatch Interval and the Dispatch Target at:

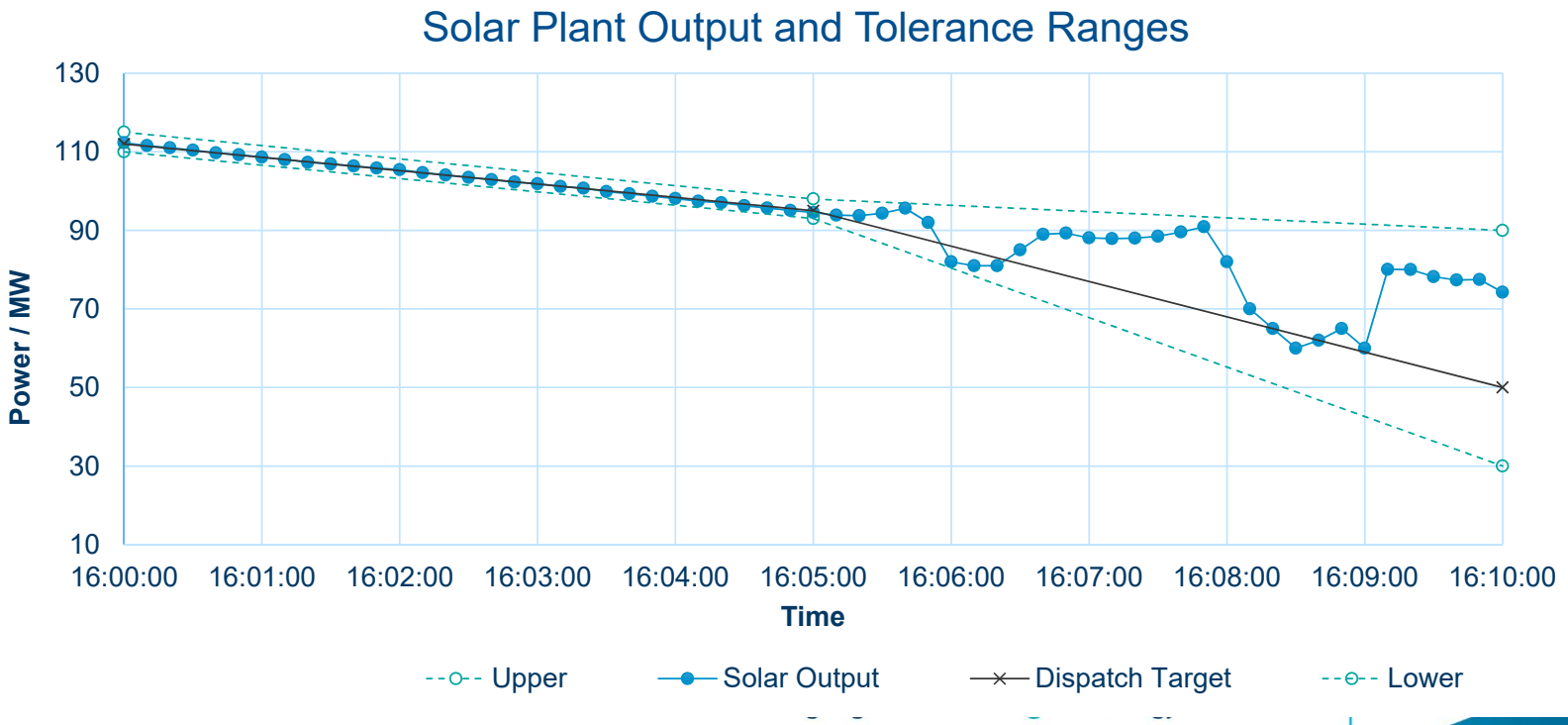
1. the time at which the Dispatch Target would be reached by ramping at the ramp rate specified in the Dispatch Instruction; or

2. if no ramp rate is specified in the Dispatch Instruction, the end of the Dispatch Interval;

Tolerance Range

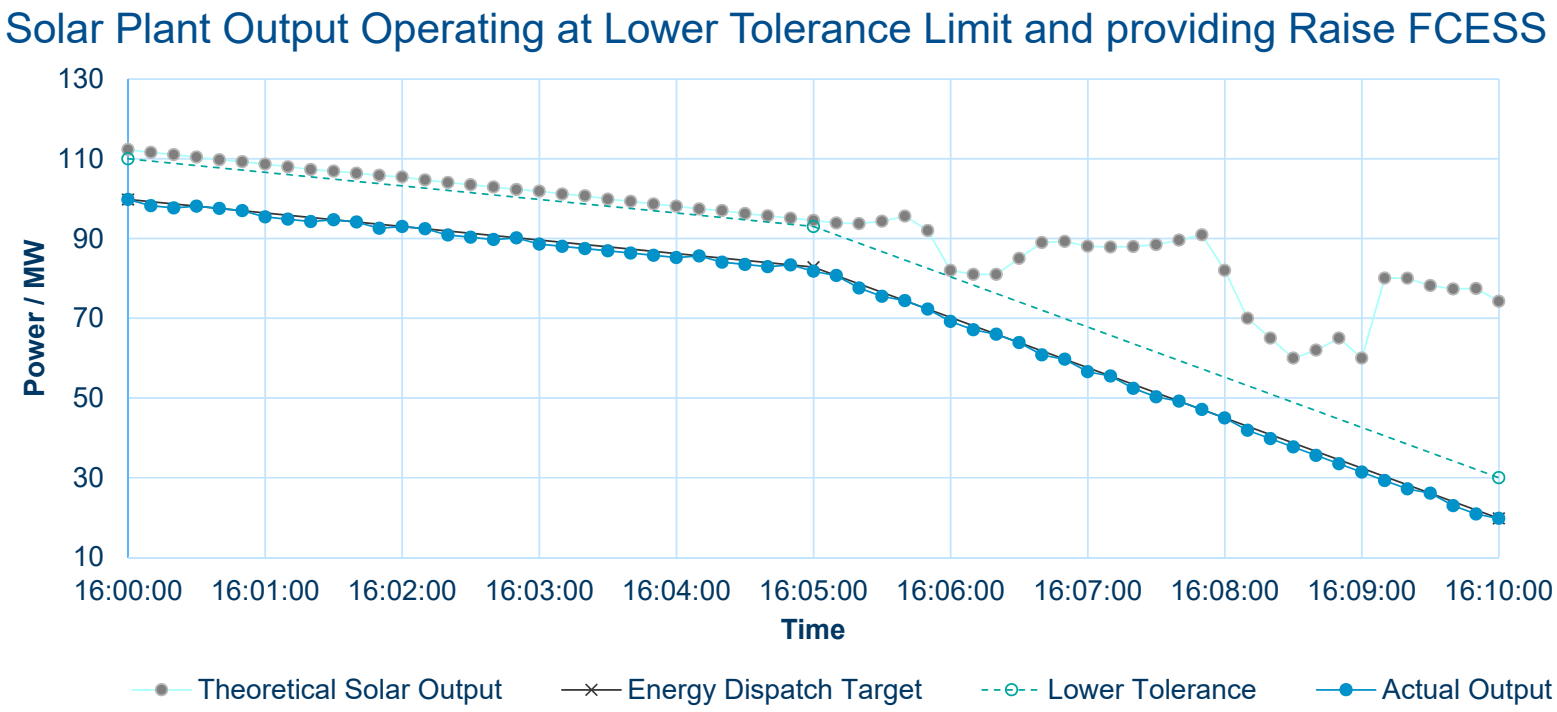
Setting a Tolerance Range per Dispatch Interval would provide AEMO with valuable information about the expected likelihood of generation outcomes. By linking the tolerance to both Dispatch Compliance and to Regulation Causer Pays, Market Participants may be incentivised to

- forecast more accurately
- reduce volatility where it is cost efficient to do so



Example of potential “good” behaviour in response to Tolerance Concept – Solar Plant

The solar plant offers a Raise FCESS service, which is enabled across the two intervals, requiring the Facility to reduce output to maintain sufficient headroom to the lower bound of its forecast



Tolerance Concept Cost Recovery

Marsden Jacob's approach to Frequency Regulation cost recovery using Tolerance Ranges in the WEM is:

1. Determine the Tolerance Bands for each generator type in based on ensuring that all plant deviations in a period (1 month) are contained within the Tolerance Band. Tolerance Bands are fixed for a 7-day cycle (4 cycles per month).

2. For the 4-week period, set Regulation Raise and Lower requirements. For example, for 2021/22 the requirements are the following:

   LFAS Upwards and Downwards:

   (a) Up to 110MW between 5:30 AM and 8:30 PM; and

   (b) 65MW between 8:30 PM and 5:30 AM.

3. Based on the total Tolerance Bands in the WEM (Tolerance Band per generator type multiplied by the number of that type – e.g., 30 generators with Tolerance Bands up and down of 6MW on average – 180MW Up / 180MW down) – pro-rata the Tolerance Bands to the LFAS requirement. For example, if a solar generator has a Tolerance Band of 6MW Up and 6MW down for a 7-day period, then it will get 6/180MW of the costs of LFAS for that 7-day period (average of 110MW and 65MW is around 100 MW taking account of hours per period) i.e., 6/180 * 100MW. In effect, this is the weekly contribution factor for the solar generator for the 7-day period.

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Agenda Item 7(a): Overview of Rule Change Proposals (as of 3 November 2022)

Market Advisory Committee (**MAC**) Meeting 2022_11_15

- 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 Proposal

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
Fast Track Rule Change Proposals with Consultation Period Closed						
None						
Fast Track Rule Change Proposals with Consultation Period Open						
None						
Standard Rule Change Proposals with Second Submission Period Closed						
RC_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	31/12/2022
Standard Rule Change Proposals with Second Submission Period Open						
None						
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	31/12/2022
RC_2018_03	01/03/2018	Collgar Wind Farm	Capacity Credit Allocation Methodology for Intermittent Generators	Medium	Publication of Draft Rule Change Report	31/12/2022

Reference	Submitted	Proponent	Title	Urgency	Next Step	Date
RC_2019_01	21/06/2019	Enel X	The Relevant Demand calculation	Medium	Publication of Draft Rule Change Report	31/12/2022
Standard Rule Change Proposals with the First Submission Period Open						

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
2022/67	17/05/2022	Wholesale Electricity Market Amendment (Network Access Quantities Procedure) Rules 2022	• Schedule B will commence on 01/03/2023
2021/212	17/12/2021	Wholesale Electricity Market Amendment (Tranche 5 Amendments) Rules 2021	• Schedule G will commence on 01/01/2023. • Schedule H will commence on 01/10/2023. • Schedule I will commence at times specified by the Minister in notices published in the Gazette.
2021/166	28/09/2021	Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 2) Rules 2021	• Schedule G will commence at times specified by the Minister in notices published in the Gazette.
2021/96	28/05/2021	Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 1) Rules 2021	• Schedule E will commence at times specified by the Minister in notices published in the Gazette.
20201/17	18/01/2021	Wholesale Electricity Market Amendment (Governance) Rules 2021	• Schedule C will commence immediately after the commencement of the Amending Rules in clauses 50 and 62 of Schedule C of the *Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020.*
2020/214	24/12/2020	Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020	• Amending Rules in Schedule C will commence at the times specified by the Minister in notices published in the Gazette: o 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.

Government of Western Australia
Department of Mines, Industry Regulation and Safety
Energy Policy WA

Agenda Item 9: Meeting Schedule for 2023

Market Advisory Committee (**MAC**) Meeting 2022_10_11

1. Purpose

MAC members to approve the schedule for the MAC's 2023 meetings.

2. Recommendation

That the MAC considers and approves the proposed MAC meeting dates for 2023 noting that the proposed meeting times have been moved to Thursday mornings.

3. Process

The MAC usually meets every six weeks, commencing in February of each year. The MAC Secretariat has developed, in consultation with the Independent Chair, the proposed schedule for MAC meetings for 2023, where practicable timing these meetings to avoid public holidays and school holidays.[1]

The MAC is asked to consider and approve the proposed schedule for the 2023 MAC meetings.

Month	Proposed MAC Meetings
January 2022	
February 2022	9:30am on Thursday, 2 February 2023
March 2022	9:30am on Thursday, 16 March 2023
April 2022	9:30am on Thursday, 20 April 2023
May 2022	
June 2022	9:30am on Thursday, 8 June 2023
July 2022	9:30am on Thursday, 20 July 2023
August 2022	9:30am on Thursday, 31 August 2023
September 2022	
October 2022	9:30am on Thursday, 12 October 2023
November 2022	9:30am on Thursday, 23 November 2023
December 2022	

[1] This proposed schedule meets the criteria indicated above, except that the second MAC meeting has been moved one week earlier to accommodate availability of the Chair. This places the second MAC meeting in the school holidays.