Government of Western Australia
Energy Policy WA

# Meeting Agenda

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|---|---|
| **Meeting Title:** | Market Advisory Committee |
| **Date:** | Tuesday 1 March 2022 |
| **Time:** | 9:30 AM – 11:30 AM |
| **Location:** | Online, via TEAMS.<br>Observers who would like to attend the meeting are to seek approval from the Chair by noon on Friday 25 February 2022 by email to energymarkets@energy.wa.gov.au.<br>Approved observers will be sent an invitation to attend the meeting online by COB on Monday 28 February 2022. |

| Item | Item | Responsibility | Type | Duration |
|---|---|---|---|---|
| **1** | Welcome and Agenda<br>**(a)** introduction of the new independent Chair<br>**(b)** other membership changes<br>**(c)** declaration of Conflicts of Interest<br>**(d)** revised Constitution | Chair | Noting | 20 min |
| **2** | Meeting Apologies/Attendance | Chair | Noting | 5 min |
| **3** | Minutes of Meeting 2021_12_14 | Chair | Decision | 5 min |
| **4** | Action Items | Chair | Discussion | 5 min |
| **5** | Market Development Forward Work Program | Chair/Secretariat | Discussion | 5 min |
| **6** | Update on Working Groups | | | |
| | **(a)** AEMO Procedure Change Working Group | AEMO | Discussion | 5 min |
| | **(b)** RCM Review Working Group | Working Group Chair | Discussion | 60 min |
| **7** | Rule Changes | | | |
| | **(a)** Overview of Rule Change Proposals | Chair/Secretariat | Noting | 5 min |
| **8** | Revised Schedule of MAC Meetings for 2022 | Chair | Approval | 5 min |

| Item | Item | Responsibility | Type | Duration |
|---|---|---|---|---|
| **9** | General Business | Chair | Discussion | 5 min |
| | Next meeting: Tuesday 5 April 2022 (TBC) | | | |

Please note, this meeting will be recorded.

Government of Western Australia
Energy Policy WA

# Minutes

| | |
|---|---|
| **Meeting Title:** | Market Advisory Committee (**MAC**) |
| **Date:** | 14 December 2021 |
| **Time:** | 9:35am – 10:20am |
| **Location:** | Level 1, 66 St Georges Terrace, Perth |

| Attendees | Class | Comment[1] |
|---|---|---|
| Peter Kolf | Chair | |
| Martin Maticka | Australian Energy Market Operator (**AEMO**) | VC |
| Dean Sharafi | AEMO | |
| Zahra Jabiri | Network Operator | ~~VC~~ |
| Angelina Cox | Synergy, proxy for Jo-Anne Chan | VC |
| Paul Keay | Small-Use Consumer Representative | |
| Noel Schubert | Small-Use Consumer Representative | |
| Geoff Gaston | Market Customer | |
| Timothy Edwards | Market Customer | |
| Patrick Peake | Market Customer | |
| Wendy Ng | Market Generator | |
| Jacinda Papps | Market Generator | |
| Tom Frood | Market Generator | VC |
| Daniel Kurz | Market Generator | |
| Peter Huxtable | Contestable Customer | |
| Noel Ryan | Observer appointed by the Minister | |
| Sara O'Connor | Observer appointed by the Economic Regulation Authority (**ERA**) | Proxy for Rajat Sarawat, VC |

| Also in Attendance | From | Comment |
|---|---|---|
| Dora Guzeleva | MAC Secretariat | Observer |
| Stephen Eliot | MAC Secretariat | Observer VC |
| Jenny Laidlaw | MAC Secretariat | Observer VC |

[1] 'VC' indicates attendance via videoconference

| Also in Attendance | From | Comment |
|---|---|---|
| Isaac George | MAC Secretariat | Observer VC |
| Rebecca White | Collgar Wind Farm | Observer VC |

| Apologies | From | Comment |
|---|---|---|
| Rajat Sarawat | ERA | |
| Jo-Anne Chan | Synergy | |

| Item | Subject | Action |
|---|---|---|
| 1 | **Welcome**<br>The Chair opened the meeting at 9:35am with an Acknowledgement of Country and welcomed members and observers to the 14 December 2021 MAC meeting. | |
| 2 | **Meeting Apologies/Attendance**<br>The Chair noted the attendance as listed above. | |
| 3 | **Minutes of Meeting 2021_11_02**<br>Draft minutes of the MAC meeting held on 2 November 2021 were circulated on 24 November 2021. The Chair noted that a revised draft of the minutes showing some tracked changes was distributed in the meeting papers.<br>The MAC accepted the revised minutes as a true and accurate record of the meeting.<br>**Action: MAC Secretariat to publish the minutes of the 2 November 2021 MAC meeting on the Coordinator's Website as final.** | **MAC Secretariat** |
| 4 | **Action Items**<br>The MAC noted that all action items were closed. The closed action items were taken as read. | |
| 5 | **Market Development Forward Work Program**<br>The paper was taken as read.<br>Ms Dora Guzeleva noted that the Energy Policy WA (**EPWA**) had appointed Robinson Bowmaker Paul (**RBP**) as consultants for the Reserve Capacity Mechanism (**RCM**) Review and started planning with RBP for the review. An RCM Review Working Group meeting would be scheduled for 20 January 2021. | |
| 6 | **Update on Working Groups** | |
| | **(a) AEMO Procedure Change Working Group (APCWG)**<br>Mr Martin Maticka advised that the APCWG met on 30 November 2021 to discuss changes to the WEM Procedure: Prudential Requirements and that consultation on the proposed procedure change would commence on 17 December 2021. | |

| Item | Subject | Action |
|---|---|---|
| 7 | **Rule Changes** | |
| | **(a) Overview of Rule Change Proposals**<br>The Chair noted that the Coordinator would publish extension notices in December 2021 to extend the next deadline to 30 December 2022 for the following Rule Change Proposals:<br>• RC_2014_05 (Reduced Frequency of the Review of the Energy Price Limits and the Maximum Reserve Capacity Price);<br>• RC_2018_03 (Capacity Credit Allocation Methodology for Intermittent Generators),<br>• RC_2019_01 (The Relevant Demand calculation); and<br>• RC_2019_03 (Method used for the assignment of Certified Reserve Capacity to Intermittent Generators). | |
| 8 | **Cost Allocation Review – Scope of Work and Working Group Formation**<br>The Chair noted the papers for this agenda item and asked the MAC to:<br>• provide comments on the revised Scope of Work for the Cost Allocation Review; and<br>• approve the formation of, and the Terms of Reference for the Cost Allocation Review Working Group.<br>Ms Guzeleva noted that the revised Scope of Work provides additional detail on the timing and staging for the review.<br>Mr Dean Sharafi noted that AEMO had proposed wording changes on page 8 of the Scope of Work from “RoCoF Safe Limit” to “RoCoF Ride-Through Cost Recovery Limit”; and that AEMO supported the Scope of Work and the proposed Terms of Reference. Ms Guzeleva agreed with the wording change.<br>Mrs Jacinda Papps asked whether EPWA had considered mapping the timing for the EPWA and ERA work programs and for the MAC and other stakeholder forums to see how they fitted together, as significant overlaps and resourcing constraints may prevent the best outcomes from these processes. Ms Guzeleva agreed that resourcing was a problem and that EPWA had considered the work programs for the MAC, Gas Advisory Board and Pilbara Advisory Committee, but not the ERA work program. Ms Guzeleva indicated that the Procedure Change Review had been deferred due to time and resource constraints and that the Cost Allocation Review could be deferred if time and resource constraints became problematic.<br>Mr Noel Schubert noted that the Expert Consumer Panel supported the causer pays principle but suggested that there should also be adequate mechanisms to reward Market Participants that help resolve problems. Ms Guzeleva suggested that this was addressed by guiding principle (3) – that the cost allocation methodology should “provide effective incentives to Market Participants to | |

| Item | Subject | Action |
|---|---|---|

operate efficiently to minimise the overall cost to consumers".
Mr Peter Huxtable suggested that principle (3) should be expanded to ensure that it covered Mr Schubert's issue.

Mr Tom Frood noted that Facilities were required to respond to frequency excursions outside a specified dead band and questioned how this requirement would interact with the upcoming Essential System Services (**ESS**) markets. Mr Frood considered that further clarity was needed, particularly if Facilities were using different dead bands so that some Facilities may try to respond to a frequency excursion, while others may not.

Mr Schubert asked whether incentives existed to reward a Facility that was more responsive in addressing frequency excursions, compared to a Facility that fails to react.

Mr Sharafi indicated that ESS providers will be rewarded if they react quickly. Ms Guzeleva indicated that this is a key question for the Review (i.e. whether an incentive can be provided for people to help the situation).

Ms Wendy Ng indicated that all generators would have a dead band and are supposed to respond to frequency deviations within that dead band – the question was whether this was a free service or would generators be rewarded. Mr Sharafi indicated that droop response was mandated through the Technical Rules. Ms Guzeleva indicated that these minimum standards were outside the scope of the review.

Mr Schubert noted that household inverters would be capable of assisting, but there was no mechanism for an aggregator of household response to participate. Ms Guzeleva indicated that this was part of the Distributed Energy Resources (**DER**) work that was underway.

Mr Frood suggested that it would make sense to align the dead bands of Facilities, and for those that contribute to addressing frequency excursions to be paid but noted that this may not be possible given grandfathering arrangements.

Ms Rebecca White asked whether the scope of the review included developing cost recovery methods that will apply from the start of 5-minute settlement in 2025, or if the scope was limited to apply from market start. Ms Guzeleva replied that the review has been staged and that the data requirements can be assessed after the policy matters have been considered.

Ms Angelina Cox noted that peak demand was getting later, that residential customers' PV was treated as reduced demand rather than generation, and that large customers were reducing their load, so there may be some gaming in the system. Ms Cox asked whether the Cost Allocation Review could consider the impact on residential customers. Ms Guzeleva indicated that the RCM Review, not the Cost Allocation Review, would consider the impact of load

| Item | Subject | Action |
|---|---|---|
| | response during peak and whether changes need to be made to the Individual Reserve Capacity Requirement arrangements.<br>Ms Cox noted that the schedule for the review was very aggressive and coincided with market readiness and the RCM Review, and asked whether the schedule was open to change. Ms Guzeleva indicated that the timeline was flexible depending on the MAC's priorities. Mr Huxtable and Mr Schubert suggested that the MAC needed to proceed with the Cost Allocation Review. Mr Daniel Kurz suggested that the timeline could be adjusted if the resourcing demands became too onerous.<br>Ms Guzeleva indicated that the MAC Secretariat would commence procurement for a consultant to support the Cost Allocation Review and would seek nominations for the Cost Allocation Review Working Group in January 2022.<br>The MAC approved:<br>• the formation of the Cost Allocation Review Working Group; and<br>• the Terms of Reference for the Cost Allocation Review Working Group. | |
| **9** | **Update on the Amending Rules implementing the Energy Transformation Strategy**<br>Ms Guzeleva advised that the Minister had approved the Tranche 5 Amending Rules, which would be published in the Gazette on 17 December 2021. Ms Guzeleva provided an overview of the Tranche 5 Amending Rules and noted that some of the Amending Rules would commence immediately after Gazettal. | |
| **10** | **Schedule of MAC Meetings for 2022**<br>The MAC agreed to the proposed schedule of meetings for 2022. | |
| **11** | **General Business**<br>Ms Guzeleva noted that a call for nominations had been published for the MAC and that nominations would close on 19 January 2021.<br>No other general business was raised.<br>The next MAC meeting is scheduled for 8 February 2022. | |

**The meeting closed at 10:20am.**

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# Agenda Item 4: MAC Action Items

Market Advisory Committee (**MAC**) Meeting 2022_03_01

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

| Item | Action | Responsibility | Meeting Arising | Status |
|---|---|---|---|---|
| 19/2021 | MAC Secretariat to publish the minutes of the 2 November 2021 MAC meeting on the Coordinator's Website as final. | MAC Secretariat | 2021_12_14 | **Closed**<br>The minutes were published on the Coordinator's Website on 16 December 2021. |

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# Agenda Item 5: Market Development Forward Work Program

Market Advisory Committee (**MAC**) Meeting 2022_03_01

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

In addition:

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

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

## Recommendation

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

| Table 1 – Market Development Forward Work Program | | |
|---|---|---|
| **Review** | **Issues** | **Status and Next Steps** |
| RCM Review | A review of the RCM, including a review of the Planning Criterion. | • The MAC has established the RCM Review Working Group. Information on the Working Group is available at https://www.wa.gov.au/government/document-collections/reserve-capacity-mechanism-review-working-group, including:<br>○ the Scope of Works for the review, as approved by the Coordinator;<br>○ the Terms of Reference for the Working Group, as approved by the MAC;<br>○ the list of Working Group members;<br>○ meeting papers and minutes from the Working Group meeting on 20 January 2022; and<br>○ meeting papers for the Working Group meeting on 17 February 2022.<br>• Following a competitive process, the Coordinator has appointed Robinson Bowmaker Paul to assist with the RCM Review.<br>• The Chair of the Working Group will present further information to the MAC on the work done by the Working Group to date and will seek MAC support for the agreed assumptions and approach to the modelling for the RCM Review – see Agenda Item 6(b). |
| Cost Allocation Review | A review of:<br>• the allocation of Market Fees, including behind the meter (**BTM**) and Distributed Energy Resources (**DER**) issues;<br>• cost allocation for Essential System Services; and<br>• Issues 2, 16, 23 and 35 from the MAC Issues List (see Table 3). | • The MAC has established the Cost Allocation Review Working Group. Information on the Working Group is available at https://www.wa.gov.au/government/document-collections/cost-allocation-review-working-group, including:<br>○ the Scope of Work for the review, as approved by the Coordinator; and<br>○ the Terms of Reference for the Working Group, as approved by the MAC.<br>• The MAC Secretariat is in the process of procuring consultancy services to assist with the Cost Allocation Review.<br>• The first meeting of the Working Group will take place in April 2022. |

| Table 1 – Market Development Forward Work Program | | |
|---|---|---|
| **Review** | **Issues** | **Status and Next Steps** |
| Procedure Change Process Review | A review of the WEM Procedure Change Process to address issues identified through Energy Policy WA's consultation on governance changes. | • This review will commence in mid-2022. |
| 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. |
| 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. |

| Table 2 – Issues to be Addressed in the RCM Review | | | |
|---|---|---|---|
| **Id** | **Submitter/Date** | **Issue** | **Status** |
| 1 | Shane Cremin<br>November 2017 | **IRCR calculations and capacity allocation**<br>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<br>November 2017 | Penalties for outages. | To be considered in the RCM Review. |
| 4 | Shane Cremin<br>November 2017 | Incentives for maintaining appropriate generation mix. | To be considered in the RCM Review. |
| 14/36 | Bluewaters and ERM Power<br>November 2017 | **Capacity Refund Arrangements:**<br>The current capacity refund arrangement is overly punitive as Market Participants face excessive capacity refund exposure. This refund exposure is well more than what is necessary to incentivise the Market Participants to meet their obligations for making capacity available. Practical impacts of such excessive refund exposure include:<br>• 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<br>• 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:<br>• 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<br>unnecessary excessive insurance premium and prudential support costs, the saving of which can be passed on to consumers. | |
| 30 | Synergy<br>November 2017 | **Reserve Capacity Mechanism**<br>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:<br>• assessment of reserve capacity requirement criteria, reserve capacity capability and reserve capacity obligations;<br>• IRCR assessment;<br>• Relevant Demand determination;<br>• determination of NTDL status;<br>• Relevant Level determination; and<br>• assessment of thermal generation capacity.<br>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<br>July 2019 | **Issues with Reserve Capacity Testing**<br>• 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.<br>• There is a discrepancy between the number of Trading Intervals for self-testing vs. AEMO testing.<br>• There is ambiguity in the timing requirements for a second test when the relevant generator is on an outage.<br>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<br>October 2019 | **Outage scheduling for dual-fuel Scheduled Generators**<br>'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.<br>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.<br>• (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<br>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<br>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.<br>Therefore, the non-BTM Market Participants are subsiding the BTM generation in the WEM. Subsidy does not promote efficient economic outcome.<br>Rapid growth of BTM generation will only exacerbate this inefficiency if not promptly addressed.<br>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.<br>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.<br>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<br>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.<br>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.<br>Recommendations: to review the Market Fees structure including the cost recovery mechanism for a reform program.<br>The cost saving from improved economic efficiency can be passed on to the end consumers, hence promoting the Wholesale Market Objectives. | |
| 35 | ERM Power<br>November 2017 | **BTM generation and apportionment of Market Fees, ancillary services, etc.**<br>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<br>November 2017 | Improvement of AEMO forecasts of System Load; real-time and day-ahead. | Consideration of this issue has been deferred. |
| 22 | Bluewaters<br>November 2017 | Prudential arrangement design issue: clause 2.37.2 of the WEM Rules enables AEMO to review and revise a Market Participant's Credit Limit at any time. It is expected that AEMO will review and increase Credit Limit of a Market Participant if AEMO considers its credit exposure has increased (for example, due to an extended plant outage event).<br>In response to the increase in its credit exposure, clause 2.40.1 of the WEM Rules and section 5.2 of the Prudential Procedure allow the Market Participant to make a voluntary prepayment to reduce its Outstanding Amount to a level below its Trading Limit (87% of the Credit Limit).<br>Under the current WEM Rules and Prudential Procedure, AEMO can increase the Market Participant's Credit Limit (hence increasing its prudential support requirement) despite that a prepayment has already been paid (it is understood that this is AEMO's current practice).<br>The prepayment would have already served as an effective means to reduce the Market Participant's credit exposure to an acceptable level. Increasing the Credit Limit in addition to this prepayment would be an unnecessary duplication of prudential requirement in the WEM.<br>This unnecessary duplication is likely to give rise to higher-than-necessary prudential cost burden in the WEM; which creates economic inefficiency that is ultimately passed on the end consumers. | AEMO is considering this issue via Procedure Change Proposal AEPC_2021_04. AEMO will discuss this matter under Agenda Item 6(a).<br>At its meeting on 21 September 2021, the MAC agreed to keep Issue 22 open until it is clear whether AEMO's Procedure Change Proposal to amend the WEM Procedure: Prudential Requirements will address all of Issue 22. |

| Table 4 – Other Issues | | | |
|---|---|---|---|
| **Id** | **Submitter/Date** | **Issue** | **Status** |
| | | Recommendation: amend the WEM Rules and/or procedures to eliminate the duplication of prudential burden on Market Participants.<br>The resulting saving from eliminating this unnecessary prudential burden can be passed on to end consumers. This promotes economic efficiency and therefore the Wholesale Market Objectives. | |

# MARKET ADVISORY COMMITTEE MEETING, 1 March 2022

FOR NOTING

SUBJECT: UPDATE ON AEMO'S MARKET PROCEDURES

AGENDA ITEM: 6(A)

## 1. PURPOSE

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

## 2. AEMO PROCEDURE CHANGE WORKING GROUP (APCWG)

| | **Most recent meetings** | **Next meeting** |
|---|---|---|
| Date | None | TBC |
| Market Procedures for discussion | None | TBC |

## 3. AEMO PROCEDURE CHANGE PROPOSALS

The status of AEMO Procedure Change Proposals is described below, current as at 1 March 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** |
|---|---|---|---|---|
| AEPC_2021_04 | Changes to reduce the Credit Limit assessment period and to correlate STEM and Non-STEM exposure for calculation of a Market Participant's Credit Limit | Call for Submissions has ended | Procedure commencement | 28/02/2022 |

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# Agenda Item 6(b): RCM Review Working Group

Market Advisory Committee (**MAC**) Meeting 2022_03_01

## Background

At its meeting on 2 November 2021, the Market Advisory Committee (**MAC**) established the Reserve Capacity Mechanism Review Working Group (**RCMRWG**) to assist the Coordinator of Energy (**Coordinator**) with the review of the Reserve Capacity Mechanism (**RCM Review**).

The RCMWG has met twice since the last MAC meeting:

- on 20 January 2022, to discuss the structure of the RCM Review (see **Attachment 1** for the minutes of this meeting); and
- on 17 February 2022 to discuss the modelling methodology, assumptions and scenarios for the RCM Review.

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-working-group.

The RCMRWG provided feedback on the proposed modelling methodology, assumptions and scenarios for the RCM Review. **Attachment 2** provides an update to the MAC on the progress to date on the RCM Review.

The Coordinator is seeking MAC's support for the proposed modelling methodology, assumptions and scenarios, which will be presented at the MAC meeting.

## Recommendation

That the MAC:

- notes the minutes from the RCMRWG meeting on 20 January 2022; and
- discusses and indicates support for the proposed modelling methodology, assumptions and scenarios for the RCM Review.

## Attachments

(1) RCMRWG 2022_01_20 – Minutes of Meeting

(2) Reserve Capacity Mechanism Review – MAC Update

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# Minutes

| | |
|---|---|
| **Meeting Title:** | Reserve Capacity Mechanism Review Working Group (**RCMRWG**) |
| **Date:** | 20 January 2022 |
| **Time:** | 9:30am – 11:20am |
| **Location:** | Microsoft TEAMS |

| Attendees | Company | Comment |
|---|---|---|
| Dora Guzeleva | Chair | |
| Paul Arias | Bluewaters Power | |
| Rhiannon Bedola | Synergy | |
| Manus Higgins | AEMO | |
| Peter Huxtable | Water Corporation | |
| Sumeet Kaur | Shell Energy | |
| Mark McKinnon | Western Power | |
| Wendy Ng | Shell Energy | To replace Sumeet Kaur in the future |
| John Nguyen | Perth Energy | Proxy for Patrick Peake |
| Jacinda Papps | Alinta Energy | Until 11:00am |
| Toby Price | AEMO | Subject matter expert (**SME**) |
| Matt Shahnazari | Economic regulation Authority | |
| Andrew Stevens | Clear Energy | |
| Dev Tayal | Tesla Energy | |
| Andrew Walker | South32 (Worsley Alumina) | |
| Rebecca White | Collgar Wind Farm | |
| Richard Bowmaker | Robinson Bowmaker Paul (**RBP**) | |
| Ajith Sreenivasan | RBP | |
| Tim Robinson | RBP | |
| Sue Paul | RBP | Until 11:00am |
| Stephen Eliot | Energy Policy WA (**EPWA**) | |
| Laura Koziol | EPWA | |

| Apologies | From | Comment |
|---|---|---|
| Dale Waterson | Merredin Energy | |

| Item | Subject | Action |
|---|---|---|
| 1 | **Welcome**<br>The Chair opened the meeting at 9:30am. | |
| 2 | **Meeting Apologies/Attendance**<br>The Chair noted the attendance as listed above. | |
| 3 | **Introductions**<br>The attendees introduced themselves and the Chair noted the RCMWG's ways of working. | |
| 4 | **Project Timeline**<br>Mr Tim Robinson presented the project timeline and the structure of the Reserve Capacity Mechanism (**RCM**) Review. The following key points were raised:<br>• The Chair clarified that the modelling in all steps of Stage 1 will consider three timeframes – status quo, 2030 and 2050 – and therefore will reflect the net zero emission target.<br>• The Chair noted that EPWA is commencing work on the new Whole of System Plan, which will be a two-year project with extensive scenario modelling, and that the RCM Review will have a shorter timeline that will model snapshots in time.<br>• Mrs Jacinda Papps noted that a huge amount of investment will be required to cater for the electrification needed to achieve the net zero emission target and it will be challenging to work out what that means for the RCM. The Chair noted RCMRWG is tasked with developing sensible, representative analysis to address this matter in the next six months.<br>• The Chair noted that EPWA has commenced its Energy and Governance Legislation Reform (project Eagle), which has flagged changes to the Wholesale Electricity Market Objectives. This will allow the RCM Review to account for how the market is evolving, particularly with respect to emissions.<br>• Mr Dev Tayal asked how the RCM Review would affect investment certainty for new projects planning to enter the market within the next few years. The Chair noted that:<br>o the Network Access Quantity (**NAQ**) regime, the certification of capacity for storage and the pricing regime for Capacity Credits are out of scope; | |

| Item | Subject | Action |
|---|---|---|

- the RCM is an administrative mechanism that has evolved significantly over time and can be expected to continue to evolve;
- in the market design that includes relatively low Energy Price Limits, the purpose of the RCM is to ensure that generators have the opportunity to earn sufficient revenue for their investments; and
- there is currently an oversupply of capacity in the Wholesale Electricity Market (**WEM**), leading to low Reserve Capacity Prices, but the price is expected to rebound in response to the scheduled plant retirements and the expected peak demand growth, which should provide the necessary investment signal.

- The RCMRWG agreed to hold a meeting on 17 February 2022 to agree to a modelling approach that can be reported to the MAC at its meeting on 1 March 2022.

**5 Initial Discussion**

Mr Robinson presented the key topics for the RCM Review.

The following points were raised:

- Mr Manus Higgins noted that remaining schedulable generation (e.g. net of demand) should be considered as part of the system stress investigations.
- Mr Matt Shahnazari noted that, with increased renewable generation, supply shortages can occur outside of peak demand periods, and that the system stress investigations should include times where supply minus demand is low.
- Mr Ajith Sreenivasan noted that system inertia could also be relevant when investigating system stress.
- The Chair noted that the RCM currently only considers the capacity need three years in the future and suggested that consideration could be given to looking at more than one year when setting the Reserve Capacity Requirement.
- Mr Toby Price noted that AEMO has done some preliminary analysis of system stress in the SWIS and suggested that the RCM Review could consider differentiating between types of volatility, such as volatility caused by changes in solar radiation during the day and less known volatility across multiple intervals associated with weather conditions.
- Mrs Papps raised concerns about the possible introduction of the Unforced Capacity (**UCAP**) concept in the RCM and considered that:
  - forecasting outages is fraught and likely to penalise some technology types (e.g. baseload);

| Item | Subject | Action |
|---|---|---|

- forecasting outages is unlikely to be more accurate than applying a reserve margin;
- past outages may not predict future outages and may penalise generators for one-off incidents where the issue has been rectified; and
- refunds already incentivise availability.

Ms Wendy Ng agreed that a UCAP regime would not be workable in the WEM.

The Chair noted that the Scope of Works requires the RCMRWG to consider the UCAP concept and indicated that the concerns by Mrs Papps and Ms Ng would be considered.

- Mr Shahnazari asked if the RCM Review would consider locational capacity prices and noted that other jurisdictions are applying multiple reliability nodes. Mr Robinson indicated that the modelling would assess whether different regions will have different capacity needs which could result in the need for multiple reliability nodes.
- Ms Ng raised concerns that having the NAQ regime and also having the RCM regime account for differences in the contribution to reliably by location could lead to some form of double dipping. The Chair clarified that the assessment of whether the contribution to reliability differs by location would only consider any locational differences that are not already addressed through the NAQ regime.
- Mr Price noted that, in the context of looking at different technologies, different capabilities of value to the system could also be considered such as fuel availability (possibly linked to energy storage duration), start-up times, ramp rates and minimum generation.
- The Chair indicated that consideration should be given to developing one methodology to determine Certified Reserve Capacity for all technology types. Mr Shahnazari noted that other jurisdictions are currently implementing or aiming to implement a single method to assess the contribution to reliability for all technologies.
- Mr Higgins noted that the RCM Review should include the assessment of the availability classes and that it is possible that more availability classes will be needed in the future to reflect the level of ‘usefulness’ to the gris operators.
- The Chair noted that capacity could also be valued differently depending on the associated emissions.

Mr Andrew Stevens cautioned against accounting for emissions in the RCM because other regulatory mechanisms will incentivise low-emissions solutions and

| Item | Subject | Action |
|---|---|---|
| | that the RCM should focus on reliability. Mr Shahnazari and Ms Ng agreed with Mr Stevens.<br>Ms Rebecca White noted that the RCM Review should ensure that the RCM is not inconsistent with the Government's emissions policy.<br>Mr Higgins noted that the RCM Review should ensure that low-emissions technologies are not kept out of the market but RCM should not be used to incentivise low emission technologies. | |
| **6** | **Introduction of the Modelling Tool**<br>The RCMRWG agreed to defer discussion of the modelling tool to the meeting on 17 February 2022. | |
| **7** | **Next Steps**<br>The Chair asked all RCMRWG members to provide the MAC Secretariat with:<br>• any analysis and data that is relevant to the deliverables for this review; and<br>• any international references or experience relevant to the RCM in WA. | **RCMRWG members (end Feb 2022)** |
| **11** | **General Business**<br>No general business was discussed.<br>The next RCMWG meeting is scheduled for 17 February 2022. | |

**The meeting closed at 11:20am.**

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# Reserve Capacity Mechanism Review

## MAC Update

**1 March 2022**

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

# Contents

| Item | Item | Duration |
|---|---|---|
| 1 | Project Scope and Timeline | 10 min |
| 2 | Modelling Methodology | 20 min |
| 3 | Modelling Assumptions and Scenarios | 20 min |
| | Appendix – Elements of Grid Reliability | |
| | Appendix – Modelling Methodology (more detail) | |
| | Appendix – Modelling Tools | |

# 1. Project Scope and Timeline

# Structure of the RCM Review

- **Stage 1 – Assess and update:**
  - Reliability needs
  - Planning Criterion
  - CRC assignment
  - Benchmark Reserve Capacity Price
- **Stage 2 – Assess and update:**
  (in context of stage 1 outputs)
  - Outage scheduling
  - Capacity refunds
  - IRCR determination
- **Stage 3 – Detailed design and transition**

We are now working on Stage 1

**Not in scope**

- Network Access Quantities regime
- Reserve Capacity Price reform
- Energy Price Limits

(Any issues identified in these areas will be logged for further examination outside of the RCM Review and MAC will be advised.)

# Stage 1 Activities

**The project scope sets out five steps within stage 1:**

Step 1: Assess requirements for capacity needed to achieve the purpose of the RCM by defining types of system stress, capacity requirements to achieve desired system reliability, and which system stress situations can/should be addressed through the RCM

Step 2: Review the Planning Criterion to ensure that it reflects the purpose of the RCM and addresses the reliability target from Step 1

Step 3: Develop methods for assigning CRC to meet the Planning Criterion, including how to determine the ability of different technology types to contribute to the target, obligations for different technology types, and achieving zero emissions by 2050

Step 4: Review the method for setting the Benchmark Reserve Capacity Price considering the revised Planning Criterion

Step 5: Assess the methods for assigning CRC under different scenarios

- Lots of interrelationships, steps will be carried out in parallel to some degree
- Step 4 to be carried out after step 5

# Stage 1 working group engagement – Indicative

| RCMRWG Meeting | Indicative Topics | MAC Meeting |
|---|---|---|
| 17 March | • International review findings<br>• Modelling update – detailed assumptions (as necessary) | 5 April |
| Early May | • System stress draft modelling findings<br>• Discussion – required capacity services and planning criterion | 17 May |
| Mid June | • Required capacity services and planning criterion draft modelling findings<br>• Analysis update – required capacity services, planning criterion<br>• Discussion – CRC allocation approach | 28 June |
| Late July | • CRC allocation and scenario analysis draft modelling findings<br>• Analysis update – CRC allocation<br>• Discussion – Benchmark Reserve Capacity Price | 9 August |
| Late August | • Final findings and proposed high level design | |

# 2. Modelling Methodology

# RCM Review Modelling – Introduction

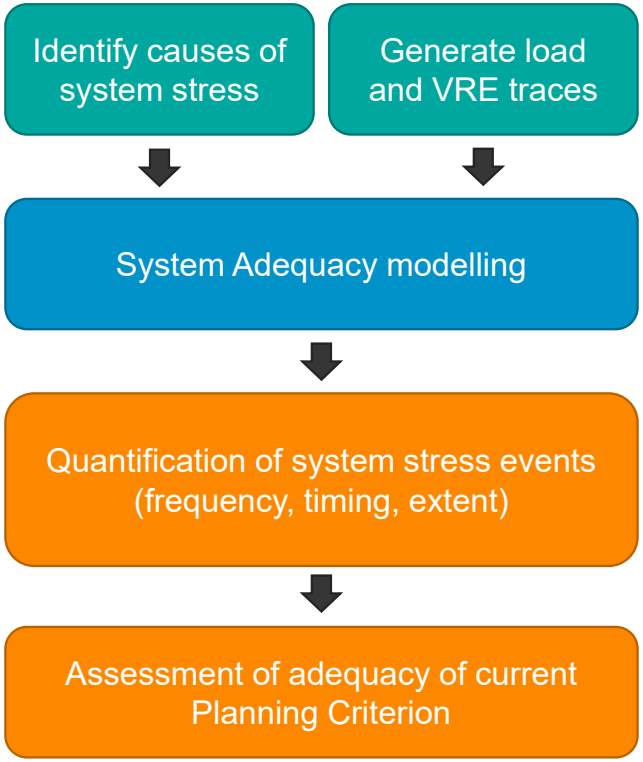
**Modelling is associated with the following RCM Review tasks:**

- System stress and required capacity services:
  - Identify causes of system stress – current and future
  - Quantify how the current generation mix (and other capacity sources) accommodate the identified types of system stress under credible demand scenarios (current, 2030 and 2050) and identify any deficiencies
- Assess whether the current Planning Criterion is adequate for meeting the capacity requirements of the SWIS and, if not, develop a Planning Criterion that will meet them
- Testing the developed approaches for assigning the CRC and setting the BRCP

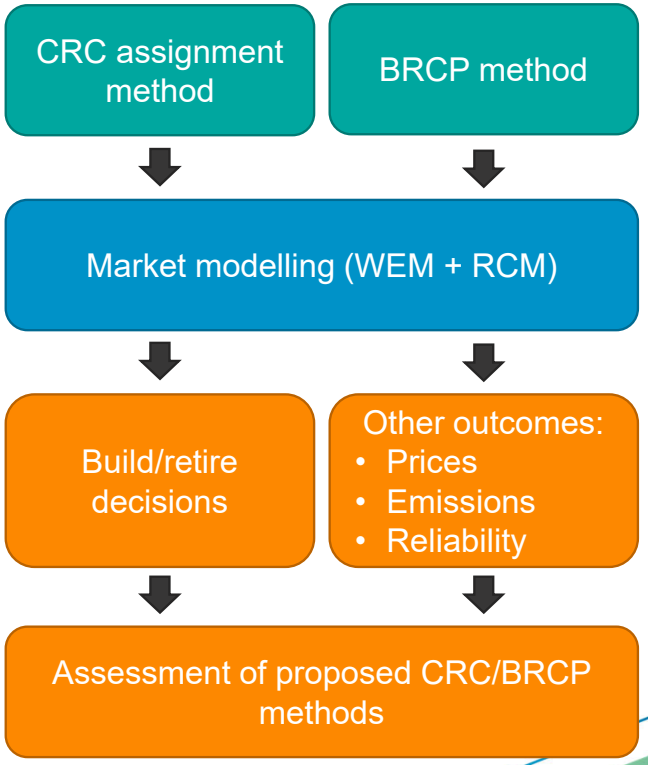
Note: It is intended for the modelling to test and inform RCM Review decisions. It is not intended to repeat the WOSP or predict the outcomes of multiple scenarios of future drivers (e.g. climate change, electrification, etc.)

# Two Distinct Modes of Modelling

1. System Stress modelling and Planning Criterion assessment:

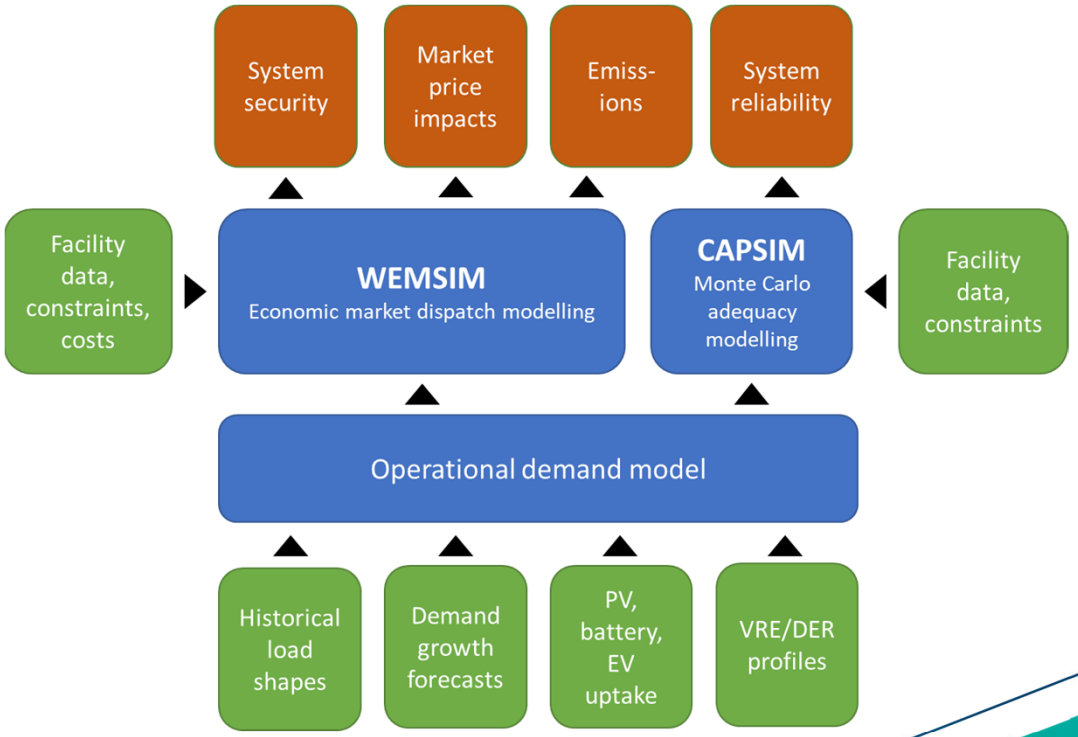



2. CRC/BRCP method assessment:



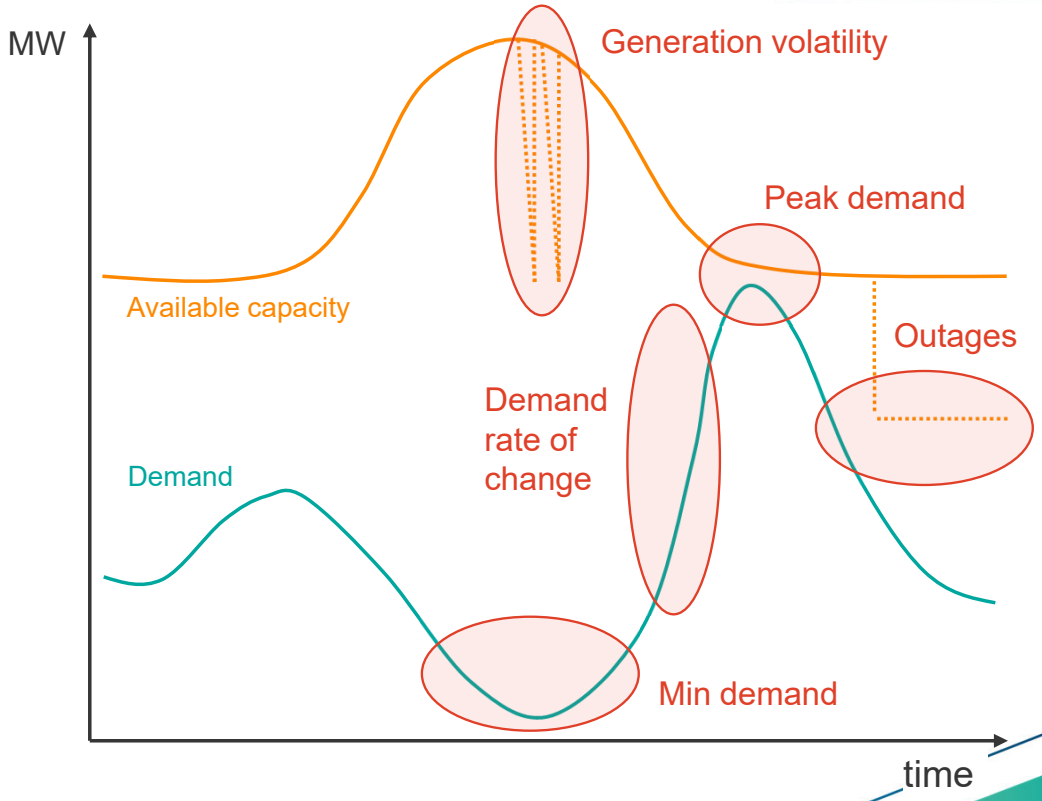
# Modelling Suite

- Two distinct modelling techniques are relevant for this project:
  - Monte Carlo system adequacy modelling – over large number of iterations for accuracy. Limited to calculating system adequacy
  - Economic market dispatch modelling – models a full range of economic and technical market outcomes, including market prices, revenue, emissions etc.
- Common to both is an operational demand model, incorporating:
  - Historical load shapes
  - Demand growth forecasts
  - Evolving demand patterns due to distributed VRE, storage, EVs

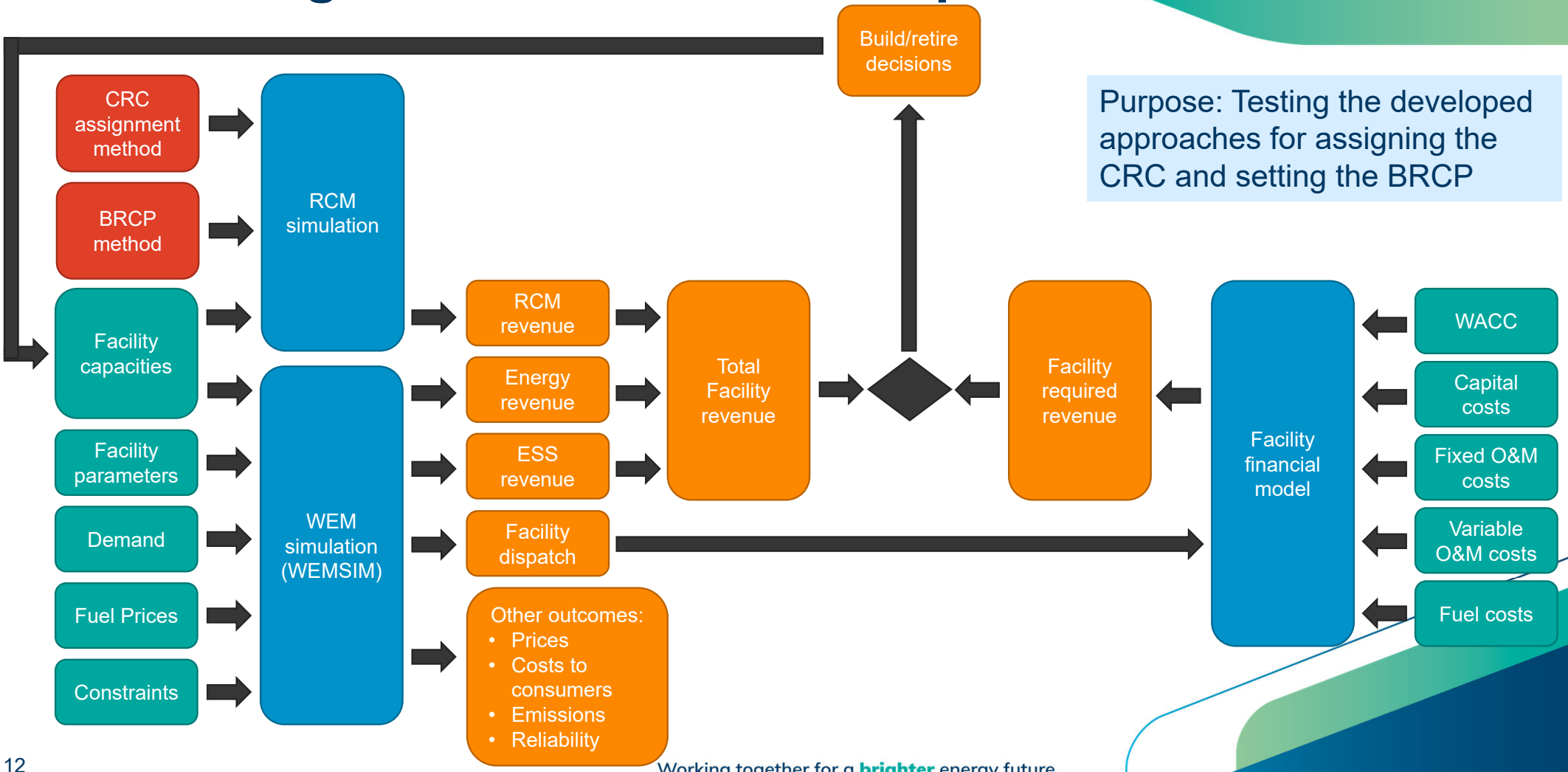


# System Stress Modelling - Causes

- Maximum demand
- Minimum demand
- Demand volatility (magnitude and speed)
- Generation volatility (magnitude and speed)
- Planning for and response to outages
- Others – TBD



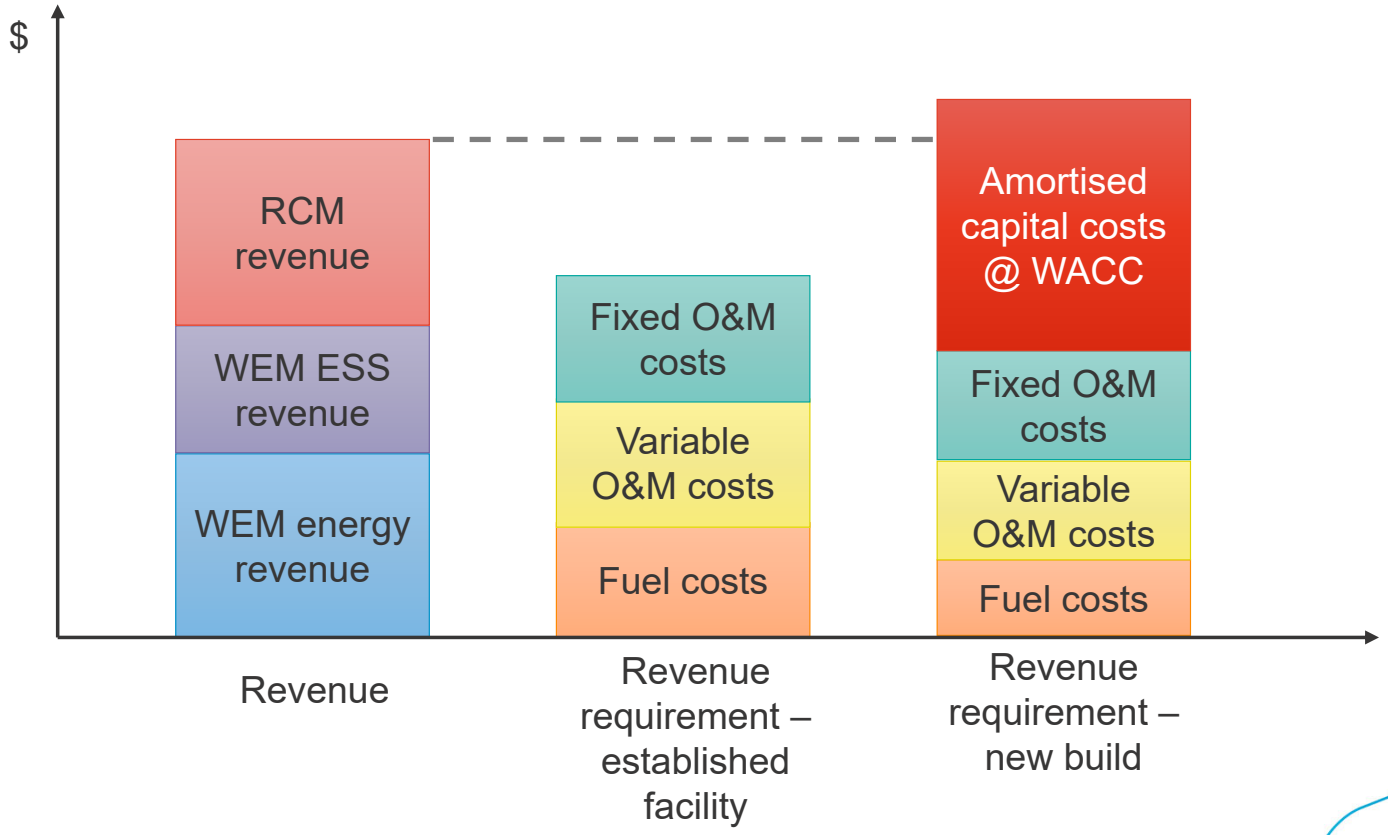
# Modelling CRC/BRCP Method Impact




Purpose: Testing the developed approaches for assigning the CRC and setting the BRCP

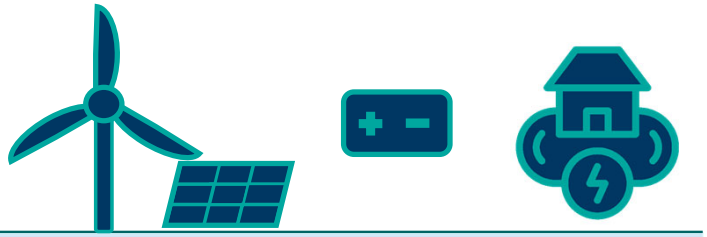
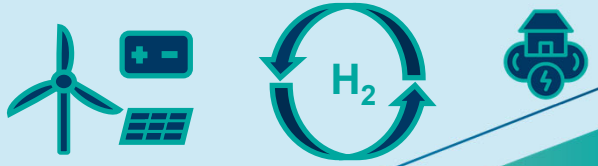
# Revenue vs Revenue Requirement

The calculation of the required revenue for a facility depends on whether it is an established facility or a new build:



# 3. Modelling Assumptions and Scenarios

# Fleet scenarios for 2050

| # | Variable Renewables | Flexibility Resource | |
|---|---|---|---|
| 1 | Sufficient low emissions variable generation capacity by 2050 to meet energy requirement | Large storage capacity<br>Some demand flexibility |  |
| 2 | Low emissions variable generation overbuild by 2050 reducing amount of storage required | Less storage capacity<br>Large demand flexibility |  |
| 3 | Sufficient low emissions variable generation capacity by 2050 to meet energy requirement | New low emissions flexible technology (e.g. $H_2$)<br>Some storage<br>Some demand flexibility |   |

Note: Storage not necessarily battery – could be pumped hydro etc.

# Modelling Input Data Assumptions

| Data Type | Source |
|---|---|
| Known/assumed retirements of existing facilities | • Two scenarios for 2030:<br>1. Muja retires on schedule; other coal and gas remains until at least 2030<br>2. All baseload retires by 2030, with storage built to compensate<br>• In all three 2050 scenarios, all coal and gas generation retires by 2050 (see previous slide). |
| Facility capital costs by technology | • AEMO ISP |
| New build WACC | • ERA BRCP determination |
| Value of Lost Load (VoLL) | • Western Power estimation of VCR (Attachment 6.3 of 2022-2027 Access Arrangement Information) |
| Other new build assumptions | • Assume new transmission upgrades occur where necessary and viable, and generation builds in locations where network capacity is available.<br>• Hence no need to model various transmission upgrade scenarios |

Note: Where historic or older data sets are used (e.g. WOSP), data will be updated using latest available information

# Modelling Input Data Assumptions

| Data Type | Source |
|---|---|
| Demand assumptions – profiles and growth (credible scenarios, including 1 in 10 year weather conditions) | • AEMO ESOO<br>• WOSP<br>• Low Load Work Programme (EPWA/AEMO/WP) |
| WEM Generation/DSP capacities | • AEMO<br>• WOSP |
| Distributed (BTM) VRE capacity | • AEMO ESOO |
| Generation characteristics | • WOSP<br>• AEMO Costs and Technical Parameters/ISP |
| VRE Generation profiles (historical traces for recent years) | • AEMO (Confidential data?) |
| Transmission constraints | • Request updated data from WP/AEMO |
| Fuel prices:<br>• Crude oil<br>• Natural gas<br>• Coal<br>• Distillate | • Consensus of multiple published outlooks<br>• CORE Energy Delivered Wholesale Gas Price Outlook 2020-2050<br>• DMIRS Major Commodities Resources Data<br>• RBP analysis based on AIP Perth Terminal Gate data & crude oil outlook |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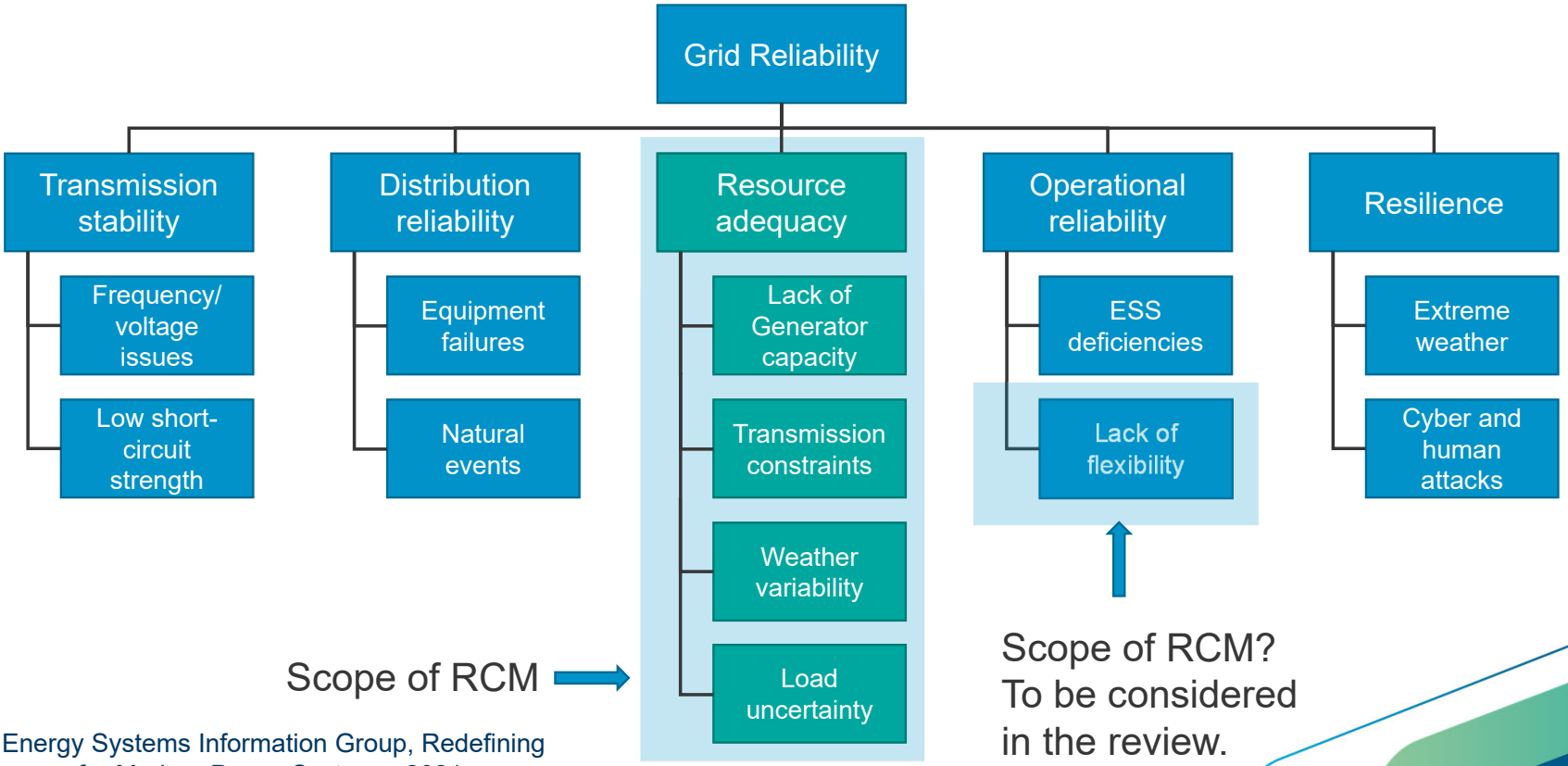
# Appendix – Elements of Grid Reliability

# The Elements of Grid Reliability



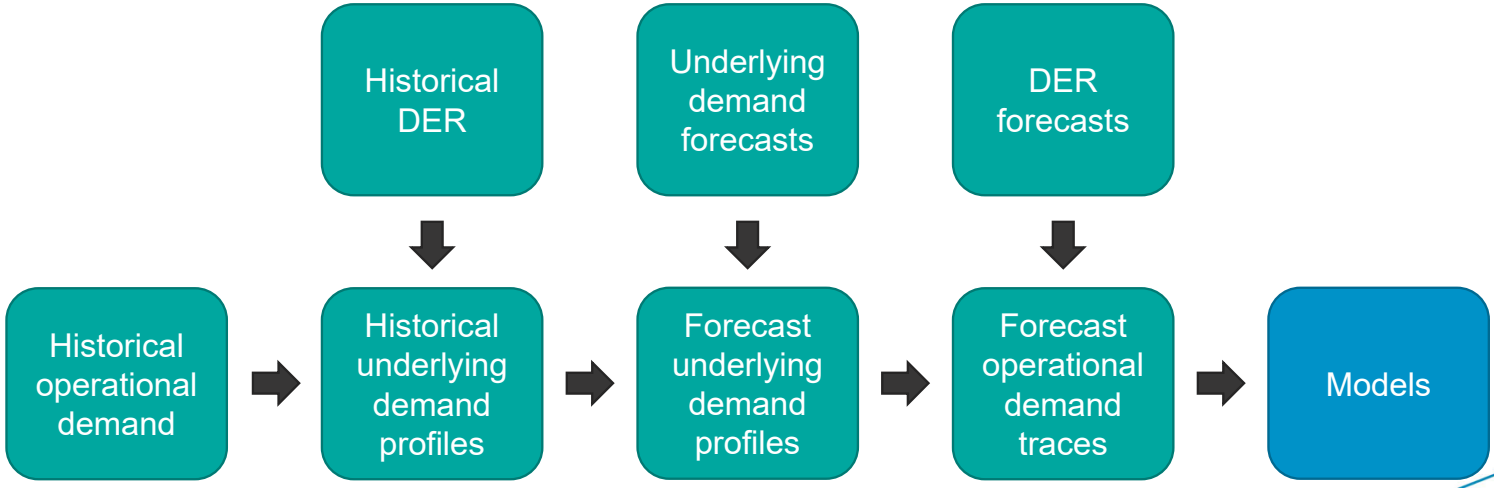

Adapted from Energy Systems Information Group, Redefining Resource Adequacy for Modern Power Systems, 2021

# Appendix - Modelling Methodology (more detail)

# Demand Modelling

- Underlying demand is the total of all end-user demand, including demand supplied by DER (e.g., rooftop solar)
- Operational demand is demand supplied through the WEM, so excludes demand supplied by DER
- Historical demand data is in the form of operational demand

The underlying demand needs to be determined, so that the evolving impact of DER can be incorporated:



# System Stress Modelling – Methodology

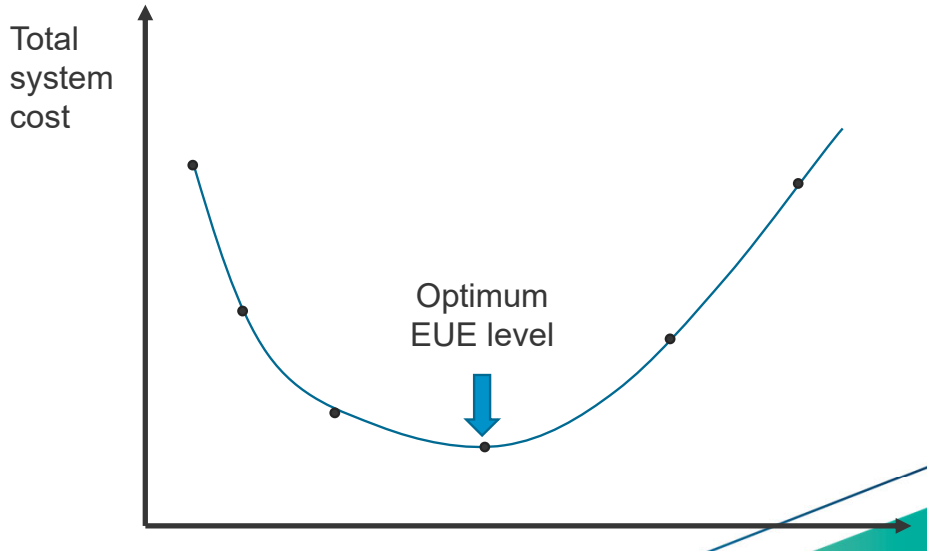
1. Identify causes of system stress and define criteria to identify instances of system stress
2. Identify types of capacity required to accommodate identified causes of system stress
   - e.g. generation increase/load reduction, fast ramping capability, generation decrease/load increase
3. Using existing operational demand model, create demand traces for 2021, 2030 and 2050, for multiple demand scenarios (including 1 in 10 year weather scenario)
4. Similarly, create capacity traces for each capacity type identified in step 2, incorporating forced and planned outages, and intermittent generation profiles
5. Analyse the traces created in steps 3 and 4 to identify instances of system stress using criteria identified in step 1 – quantify frequency, timing and extent of each type of systems stress event
   - Using combination of CAPSIM and bespoke analysis, depending on identified causes of system stress
6. For each instance of system stress, determine if capacity was sufficient to accommodate the instance
7. From the results of this analysis, assess whether the current Planning Criterion is adequate

# Revising the Planning Criterion

The RCM Review may involve revising the Planning Criterion, depending on the outcome of the preceding analysis. In this case, modelling would be used to support setting new Planning Criterion parameters

The exact nature of this modelling will depend on the form of the revised Planning Criterion. For example, if a revised Expected Unserved Energy (EUE) target is required (currently 0.002%), the methodology would be as follows:

1. Determine the lowest cost new entrant technology (previous studies assumed an OCGT, could be PV + storage)
2. Determine a Value of Customer reliability (VCR) for the SWIS
3. Perform system adequacy modelling (CAPSIM) with various levels of new capacity of the type determined in step 1 to determine the level of EUE (in MWh)
4. Determine total system cost at each level of new capacity, as EUE x VCR + cost of new capacity
5. Chart total system cost vs EUE, and determine the level of EUE at which minimum total system cost occurs



# Appendix - Modelling Tools

# The System Adequacy Model - CAPSIM

- CAPSIM simulates the capacity gap (available energy producing capacity minus load) for every hour of every year, sequentially, given a specific generation mix, load profile, Planned Outage schedule and random Forced Outages.
- This simulation can be conducted for varying load shapes and intermittent profiles
- CAPSIM is developed in Python, utilising the open-source packages Pandas and NumPy for tabular processing and vectorised operations

# CAPSIM simulation overview

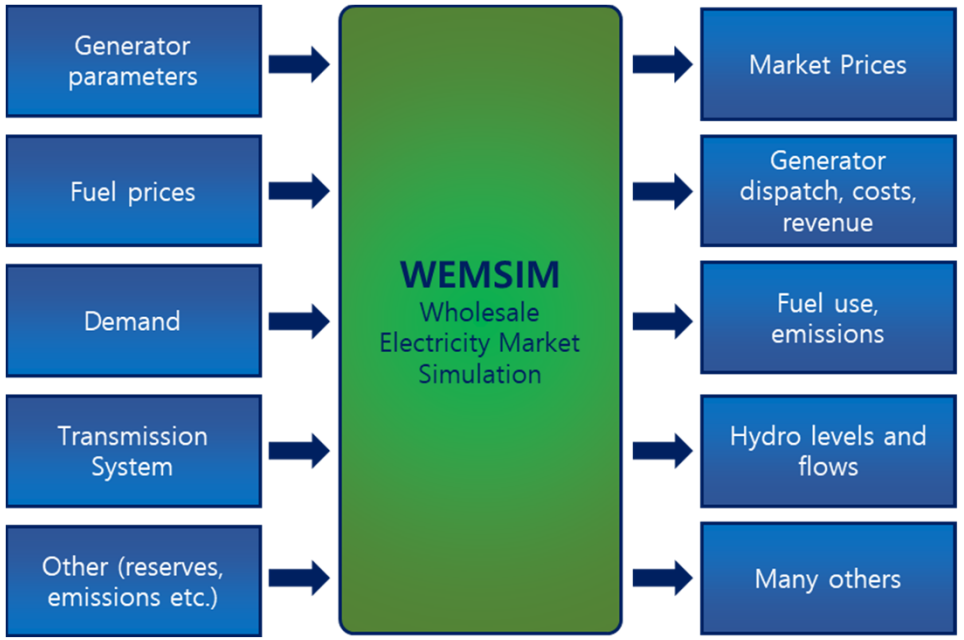
1. Forecast load for each hour for each year of LT PASA horizon
   - Hourly traces calculated using different load shapes (load scenario)
2. Calculate Unconstrained Available Capacity
   - Equals total capacity less Planned Outages less randomly simulated Forced Outages

*Apply SCED constraints*

3. Calculate Constrained Available Capacity
   - Equals Unconstrained Available Capacity less SCED curtailments
4. Calculate Unserved Energy
   - Hourly Unserved Energy equals 3 minus 1
   - Annual Unserved Energy equals sum of hourly estimates
   - 2 3 Is simulated multiple times (random forced outage seeds) per load scenario ( 1 )
5. Calculate Expected Unserved Energy
   - Average simulated Unserved Energy estimates

# The Market Simulation Model - WEMSIM

- **WEMSIM (Wholesale Electricity Market Simulation):**
  - Simulates the dispatch of thermal and hydro generation resources in a multi-regional transmission framework
  - is an analytical dispatch planning and analysis tool with an optimization engine based on linear and mixed integer programming
  - Simultaneously optimizes generation dispatch, reserve provision (and, in MIP mode, unit commitment)

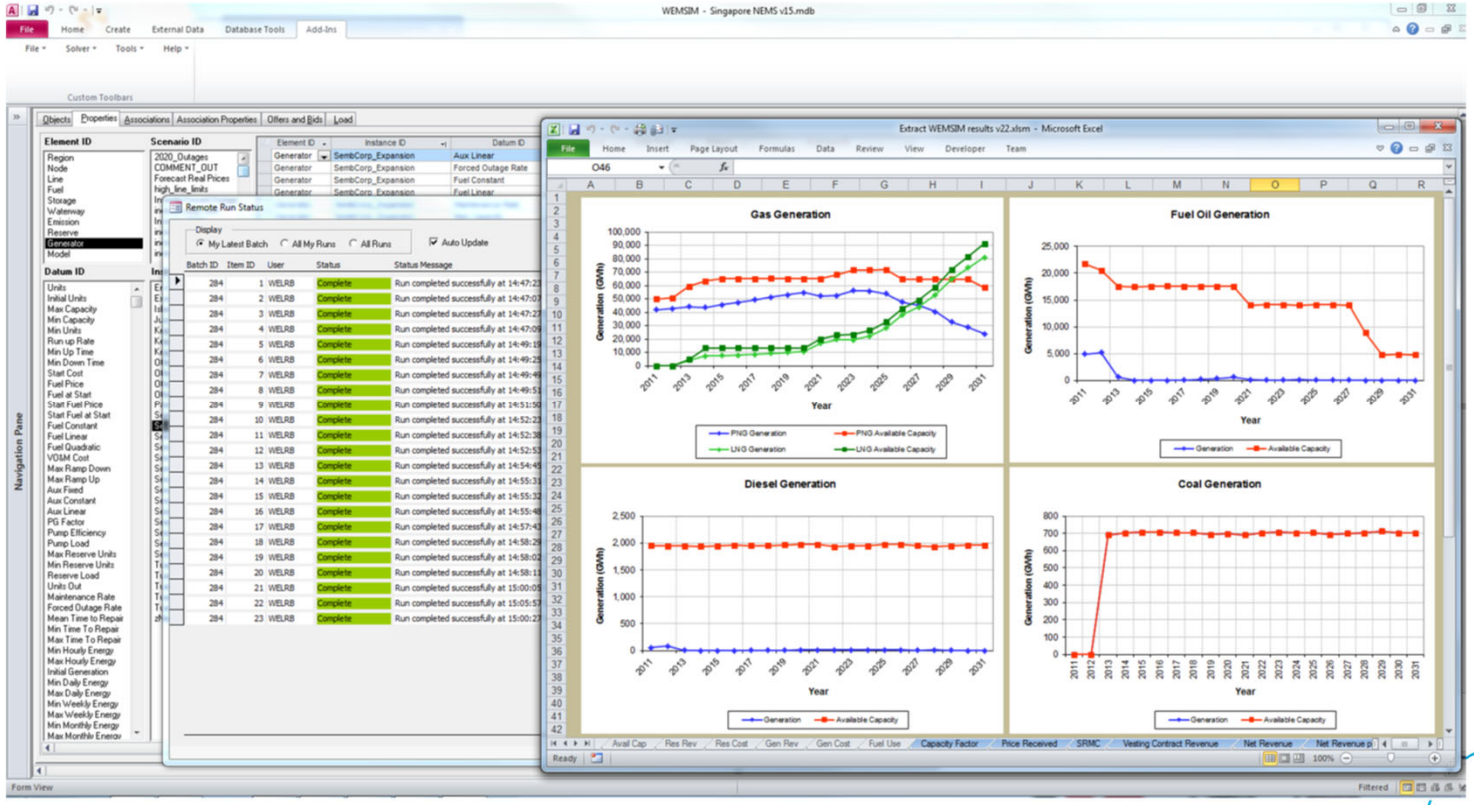


# Detailed Modelling Capabilities

- Load representation: time-based load (detailed plant operations, rich outputs, longer solve time) or load duration curve (aggregated data, fast solution, broad-brush analysis)
- Thermal generation: fixed and variable heat rates; multiple fuels; fuel constraints; emissions rates and constraints; unit commitment with start-up costs, minimum uptimes, and downtimes; take-or-pay fuel contracts; scheduled and stochastic outages
- Hydro generation: Detailed modelling of storage, waterways, and inflows, including pumped storage
- Intermittent renewables: Daily and seasonal generation profiles
- Battery and other energy storage technologies: Round trip efficiency, energy and capacity limits
- Transmission: DC load flow and transmission OR NEMDE/WEMDE style constraint equations
- Full nodal pricing, or regional markets with transmission constraint equations (nomograms), or system-wide pricing
- Demand-side participation
- Essential system service requirements, provision, cost, and revenue
- Monthly, daily, and hourly profiles available on all parameters
- Facility forced outage and maintenance simulation

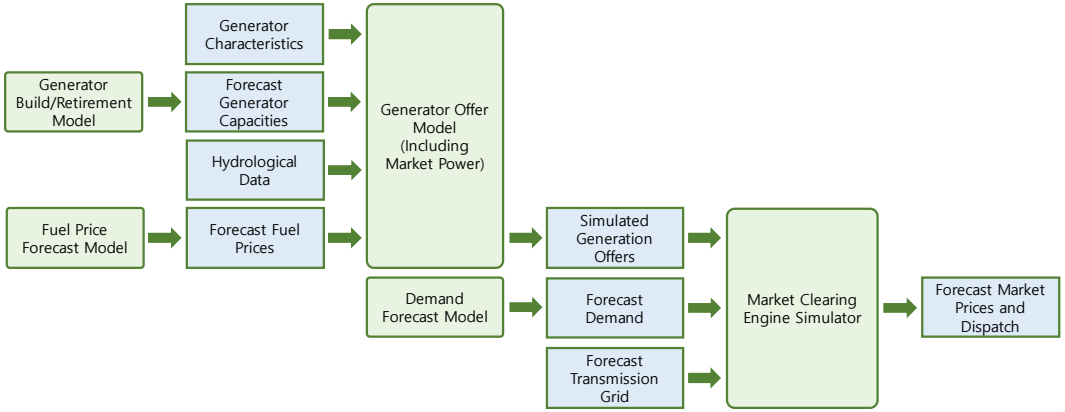
# Outputs

Outputs available include: period-by-period energy and ESS prices, dispatch, fuel use, emissions, revenue, capacity factors, unserved energy, storage volumes, network flows, and transmission constraints



# Supporting Modules

- The Market Clearing Engine Simulator is the core of the platform, performing security constrained economic dispatch with ESS co-optimization
- The Demand Forecast Model transforms a given demand shape and long-term peak and energy forecasts into realistic demand data that captures both long-term trends and short-term volatility
- The Generator Build/Retirement Model can take manual entries where known or expected, and supplement with economic build/retirement decisions
- The Generator Offer Model can provide for offers based on cost, market power (Bertrand gaming), water values/stored energy values for hydro/storage systems, or derived from historical data



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# Agenda Item 7(a): Overview of Rule Change Proposals (as of 22 February 2022)

Market Advisory Committee (**MAC**) Meeting 2022_03_01

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

## Indicative Rule Change Activity Until the Next MAC Meeting

| Reference | Title | Events | Indicative Timing |
|---|---|---|---|
| None | | | |

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

| Reference | Submitted | Proponent | Title | Commenced |
|---|---|---|---|---|
| None | | | | |

## Rule Change Proposals Awaiting Commencement

| Reference | Submitted | Proponent | Title | Commencement |
|---|---|---|---|---|
| None | | | | |

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

| Reference | Submitted | Proponent | Title | Rejected |
|---|---|---|---|---|
| None | | | | |

## Rule Change Proposals Awaiting Approval by the Minister

| Reference | Submitted | Proponent | Title | Approval Due Date |
|---|---|---|---|---|
| None | | | | |

## Formally Submitted Rule Change Proposals

| Reference | Submitted | Proponent | Title | Urgency | Next Step | Date |
|---|---|---|---|---|---|---|
| **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 | | | | | | |

| Reference | Submitted | Proponent | Title | Urgency | Next Step | Date |
|---|---|---|---|---|---|---|
| **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 |
| 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 |
|---|---|---|---|
| 2021/212 | 17/12/2021 | Wholesale Electricity Market Amendment (Tranche 5 Amendments) Rules 2021 | • Schedule C will commence on 01/03/2022.<br>• Schedule D will commence on 12/04/2022.<br>• Schedule E will commence on 01/07/2022.<br>• Schedule F will commence on 01/09/2022.<br>• Schedule G will commence on 01/01/2023.<br>• Schedule H will commence on 01/10/2023.<br>• 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 D will commence immediately after the commencement of:<br>○ the Amending Rules in Schedule C of the *Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020* specified in Part 4 of the commencement notice published on 28/05/2021 in Gazette 2021/96, that commence on 01/03/2022; and<br>○ the Amending Rules in Schedule D of the *Wholesale Electricity Market Amendment (Miscellaneous Amendments No.1) Rules 2021*, that commence on 01/03/2022.<br>• Schedule E will commence on 01/06/2022.<br>• Schedule F will commence on 01/07/2022.<br>• Schedule G will commence at times specified by the Minister in notices published in the Gazette.<br>○ The Amending Rules specified in Part 1 of the commencement notice published on 17/12/2021 in Gazette 2021/212 will commence on 01/07/2022. |
| 2021/96 | 28/05/2021 | Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 1) Rules 2021 | • Schedule D will commence immediately after the commencement of the *Wholesale Electricity Market Amendment (Tranches 2 and 3 Amendments) Rules 2020* specified in Part 4 of the commencement notice published on 28/05/2021 in Gazette 2021/96, that commence on 01/03/2022. |

| Gazette | Date | Title | Commencement |
|---|---|---|---|
| | | | • Schedule E will commence at times specified by the Minister in notices published in the Gazette:<br>○ The Amending Rules specified in Part 1 of the commencement notice published on 28/09/2021 in Gazette 2021/166 will commence on 01/03/2022.<br>○ The Amending Rules specified in Part 2 of the commencement notice published on 28/09/2021 in Gazette 2021/166 will commence on 01/07/2022. |
| 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:<br>○ The Amending Rules specified in Part 4 of the commencement notice published on 28/05/2021 in Gazette 2021/96 will commence on 01/03/2022.<br>○ The Amending Rules specified in Part 3 of the commencement notice published on 28/09/2021 in Gazette 2021/166 will commence immediately after the commencement of the Amending Rules in Schedule D of the *Wholesale Electricity Market Amendment (Miscellaneous Amendments No. 1) Rules 2021*, that commence on 01/03/2022.<br>○ The Amending Rules specified in Part 2 of the commencement notice published on 17/12/2021 in Gazette 2021/212 will commence on 01/03/2022.<br>○ The Amending Rules specified in Part 3 of the commencement notice published on 17/12/2021 in Gazette 2021/212 will commence on 12/04/2022.<br>○ The Amending Rules specified in Part 4 of the commencement notice published on 28/09/2021 in Gazette 2021/166 will commence on 01/09/2022.<br>○ The Amending Rules specified in Part 4 of the commencement notice published on 17/12/2021 in Gazette 2021/212 will commence on 01/09/2022.<br>○ 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
Energy Policy WA

# Agenda Item 8: Revised Schedule of MAC Meetings for 2022

Meeting 2022_03_01

At its meeting on 14 December 2021, the Market Advisory Committee (**MAC**) agreed to a schedule of meetings for 2022.

However, the meeting that was scheduled for 8 February 2022 was moved to 1 March 2022 because:

- the Minister had not yet appointed the independent Chair of the MAC;
- the process to fill several discretionary member vacancies on the MAC was underway; and
- the Coordinator was not able to appoint the new MAC members until after the new independent Chair was appointed because the Coordinator is required to consult with the Chair on the appointments.

Now that the Minister has appointed the independent Chair of the MAC and the new MAC members have been appointed, the MAC is asked to consider and accept the revised proposed schedule for MAC meetings for 2022, as indicated in the table below.

The MAC meets on a six-weekly cycle, usually commencing in February each year. The MAC Secretariat has developed the revised proposed schedule for MAC meetings for 2022 based on:

- a 5-week gap between the 1 March 2022 meeting and the 5 April 2022 meeting, and then a 6-week gap between meetings; and
- avoiding meetings on public holidays and school holidays.[1]

[1] Note that:

- Gas Advisory Board (**GAB**) meetings have been scheduled for 24 March 2022 and 22 September 2022, but the GAB Secretariat will ask the GAB to move its second meeting to 13 October 2022 (these are all Thursdays); and
- a schedule has not yet been set for the Pilbara Advisory Committee (**PAC**), but the PAC Secretariat will propose to the PAC that it holds quarterly meetings on 30 March 2022, 22 June 2022, 14 September 2022 and 7 December 2022 (these are all Wednesdays).

| Month | Proposed MAC Meetings | Previously Approved Meetings |
|---|---|---|
| January | | |
| February | | 8 February 2022 |
| March | 1 March 2022 | 22 March 2022 |
| April | 5 April 2022 | |
| May | 17 May 2022 | 3 May 2022 |
| June | 28 June 2022 | 14 June 2022 |
| July | | 26 July 2022 |
| August | 9 August 2022 | |
| September | 20 September 2022 | 6 September 2022 |
| October | | 18 October 2022 |
| November | 1 November 2022 | 29 November 2022 |
| December | 13 December 2022 | |

All meetings will be held on Tuesdays and will commence at 9:30am.