

WEM Reform Market Readiness Report No.8 - Abridged



Provided as an abridged report with
limited analysis



Contents

1. Proposed publication process
2. Report version for publication



1. Approval, publication and promotion

- Report 8 was not finalised and was overtaken by Survey 9.
- A stripped back, minimalist version that presents the data but no analysis should be published to keep faith with survey respondents.
- Internal review – as per Report 9.
- Upon approval:
 - publish to public website [here](#); and
 - mirror on the Reformer [here](#).
- Minimal promotion.

WEM Reform Market Readiness Report No.8 - ABRIDGED



Data collated April 2023; Report
published July 2023



About this report

- The Market Readiness Report is intended to monitor WEM participant preparedness for the start of new market arrangements in the WEM, in accordance with the [Market Readiness Engagement and Reporting Strategy](#)

Prior to July 2022

Readiness reporting focused on:

- Measuring the extent to which respondents have established and commenced internal readiness work programs
- Identifying the areas where respondents anticipate the most significant effort and challenges.

From July 2022 onward

Readiness reporting now measures progress and status against Specific Readiness Criteria

- The Specific Readiness Criteria allow stakeholders to gauge each respondent's progress in delivering outcomes of relevance to their particular business and facilities
- Different sets of criteria apply to different types of entity; market participant, network operator, system operator and regulatory authority.

- Previous Market Readiness Surveys:
 - Specific: [Survey No. 7](#): 31 January; Reported 7 Mar 2023; [Survey No. 6](#): Released 30 Nov 2022; Reported 22 Jan 2023; [Survey No. 5](#): Released 30 Sept 2022; Reported 4 Nov 2022; [Survey No. 4](#): Released 31 July 2022, Reported 9 Sept 2022
 - General: [Survey No. 3](#): Released 29 April 2022, Reported 7 June 2022; [Survey No. 2](#): Rel. 31 Jan 2022, Rep. 11 March 2022; [Survey No. 1](#): Rel. 30 June 2021, Rep. 31 July 2021
- Market Readiness Survey No. 8 was released on 31 March 2023 and supported by the [Survey User Guide](#) (Version 3).
- Survey invitees were identified as follows.
 - All registered market participants, noting AEMO excluded market participants known to no longer be active.
 - Prospective participants intending to commission new facilities before or shortly after go-live were included.
 - Where a common organisation is affiliated with multiple market participants, a single invitation in respect of that organisation was issued.
- Participation in the survey is voluntary and the results reported here have been aggregated and anonymised, with the exception of those for AEMO, Western Power and the ERA. Some of Synergy's results have also been reported in additional detail, relative to other market participants.
- This Market Readiness Report will be published on AEMO's website.
- For any queries or suggestions related to the report or survey, please contact wa.ets@aemo.com.au.

How to read this report

New in Survey 6: Aggregated Results for Market Participants

- Individual participant responses have been aggregated to generate high-level summary results for each Market Capability
- Mock sample shown at right
- Aggregation of individual participant responses requires additional calculations

Aggregate "Progress" calculation:

- Substitute the band midpoint for each progress score
- Capacity weight each response, then average

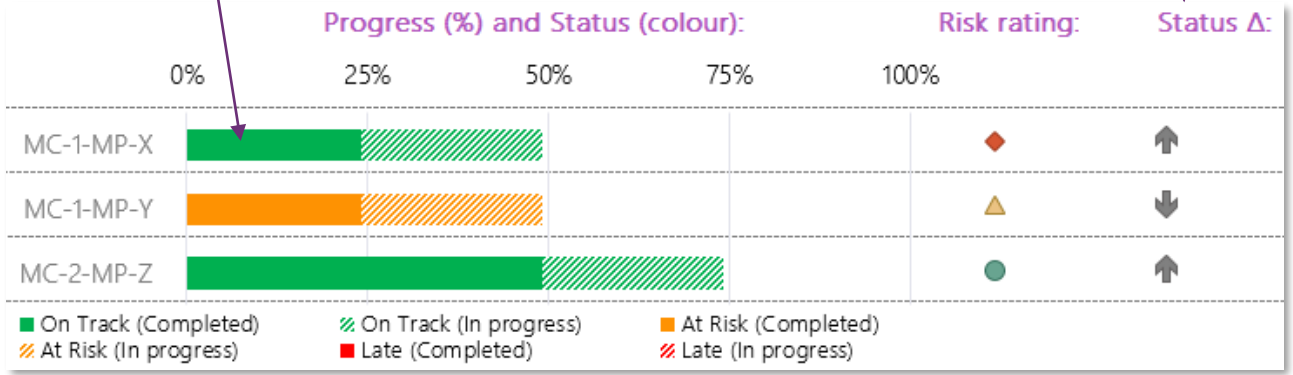
Aggregate "Status" calculation:

- Convert status responses into numeric data: **On Track** (1), **At Risk** (0.5), **Late** (0),
- Capacity weight each response, then average
- Convert numeric result back into Status categories based on bands:
 - On Track: averaged value above 0.8
 - At Risk: averaged value between 0.6 and 0.8
 - Late: averaged value below 0.6

AEMO risk rated each market capability, asking: "What is the intrinsic risk to go-live if participants aren't ready against this market capability?" Reasoning tabulated at end of this report.

Status is compared against previous survey: "Did aggregated status reports result in a change in status category?"

Progress and status of readiness work is reported in same visual form as for AEMO, Western Power and ERA.



- Legend**
- MC has low intrinsic risk
 - ▲ MC has medium intrinsic risk
 - ◆ MC has high intrinsic risk
 - ➡ Status - no change since prev survey
 - ⬇ Status - worse since prev survey
 - ⬆ Status - improved since prev survey

Note: Intrinsic risk rating of each MC is independent of the status of that MC. For example, a high-risk MC (red diamond) may have a status of On Track (green progress bars). The latter rating reflects the status of a piece of work, whereas the former indicates the degree to which success or failure in executing that work could affect Go Live.

How to read this report

Results for Market Participants (cont)

New in Survey 6: capacity weighting and reordered MCs

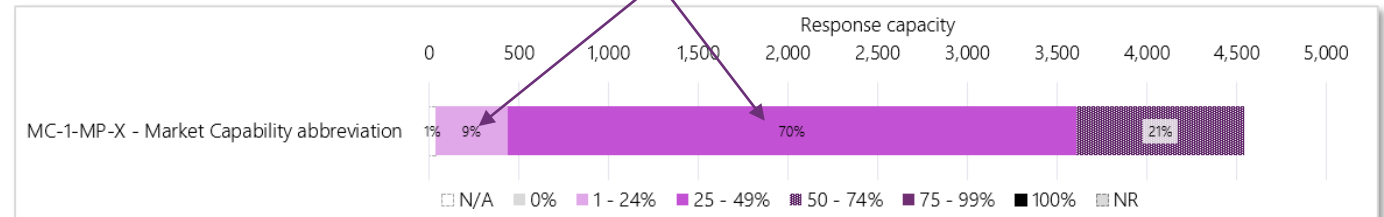
- We continue to report the spread of responses to each market capability.
- “Response capacity” replaces simple response counts

- measured by Capacity Credits awarded to each respondent for 2023-24 RC year
- this was necessary to aggregate the responses
- Charts now arrange market capabilities into high, medium and low risk – replacing Level 1 groupings (SCED, RCM, Sys Planning etc)

Progress Charts

- Possible values:
 - “N/A” – respondent considers market capability not applicable to them
 - Percentage progress of 0%, four equal bands, or 100%
 - “NR” – no response provided to this question
- Measuring the counts of each value among all responses
- Colour scheme shifts away from red as progress approaches 100%

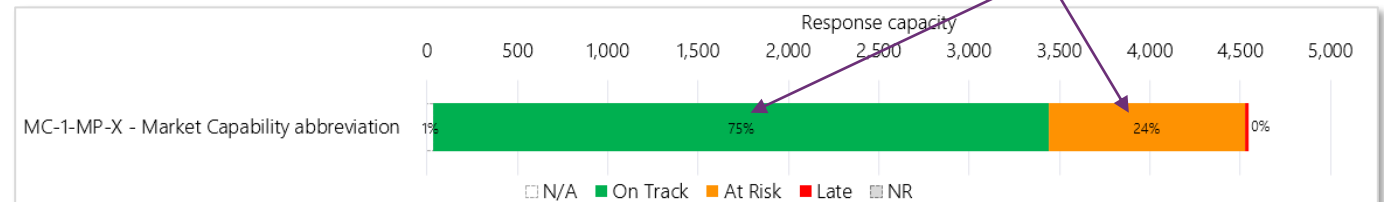
Percentage share of surveyed capacity reporting progress in this band



Status Charts

- Possible values:
 - “N/A” – respondent considers market capability not applicable to them
 - Status of work as “On Track”, “At Risk” or “Late”
 - “NR” – no response provided to this question
- Measuring the counts of each value among all responses

Percentage share of surveyed capacity reporting this status setting

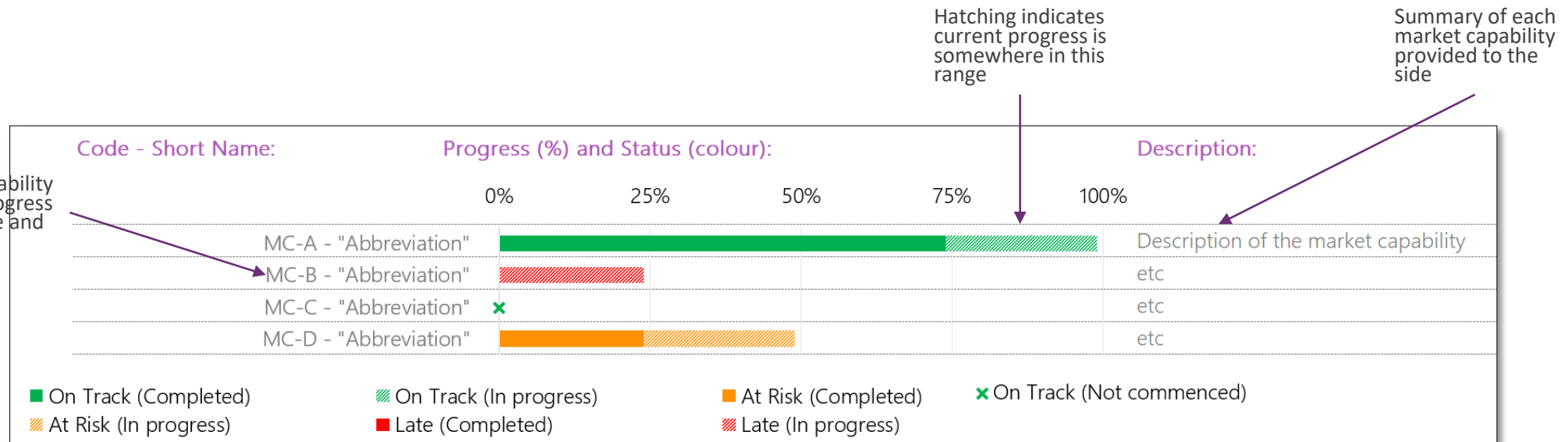


How to read this report

Results for Other Reporting Entities (ERA, Western Power, AEMO)

- All results for a given entity presented on a single chart
- Chart scale measures percentage progress of four equal bands, or 100%
- X used to mark projects yet to commence.
- Currently in progress portion of work indicated by hatching
- “N/A” and “NR” options not used.
- Colour reflects status of work as “On Track”, “At Risk” or “Late”

Example Market Capability MC-B is reporting progress in the 0 – 24% range and status of “Late”



Results for Market Participants

Market Participant Market Capabilities – Items with **high** intrinsic risk



MC-1-MP-02 - RTMS:

Able to make real time market submissions.

- Weighted by facility capacity, almost all participants (9.7 MW in 10) report RTMS work is more than half completed, this is 77% more than the previous report.
- There are no participants reporting progress in the 1-24% range, against 1% reported in last survey.
- There is 0.1MW in 10 participants reporting progress in the 25 – 49% range, down from ~8MW in 10 reported in last survey.
- Capacity reporting **On Track** has reduced from 90% last survey to 75% and capacity reporting this item as **At Risk** is reduced from 8% to 7%.
- Capacity reporting this item as **Late** is now 17%, whereas no participants had this status in Survey 7.
- One MP has noted that WEMDE UI continues to be barrier and this has put the development behind schedule.

MC-1-MP-03 - WEMDE (Dispatch Instructions):

Able to receive, understand and act on dispatch instructions at facilities.

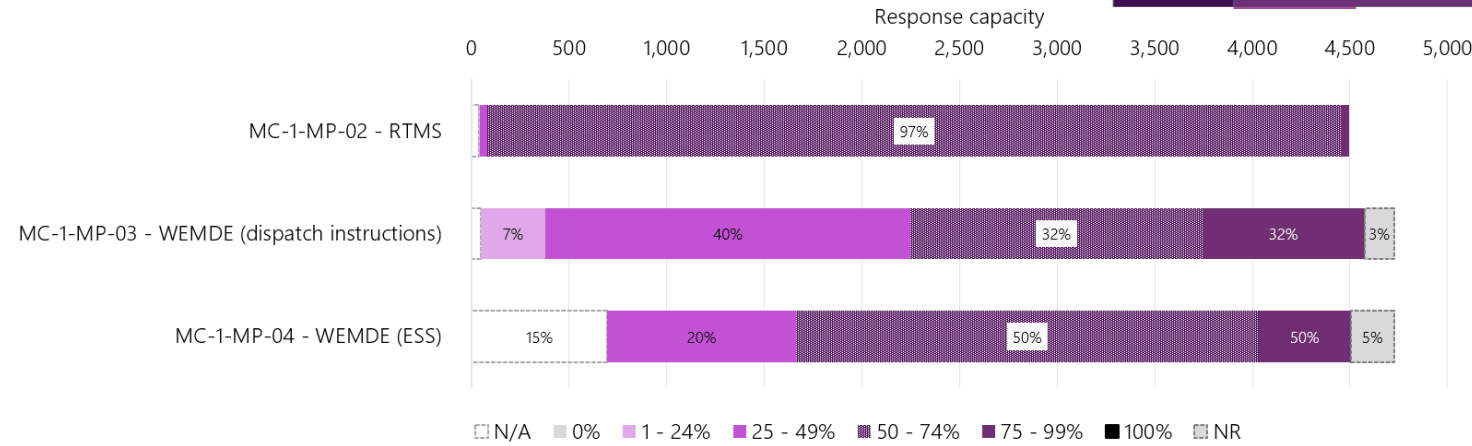
- Half of facility capacity is reporting progress of more than 50%; ~2MW in 10 report progress of 75% to 99% which is unchanged from Survey 7.
- 4MW in 10 reporting progress of 25-49% which is unchanged from survey 7.
- Compared to Survey 7, almost no additional progress was made.
- A significant majority of facility capacity (~9MW in 10) reports status of **On Track** while only a small share (<1MW in 10) reports it **At Risk**.
- Compared to Survey 7, **On Track** and **At Risk** reports remained unchanged.

MC-1-MP-04 - WEMDE (ESS):

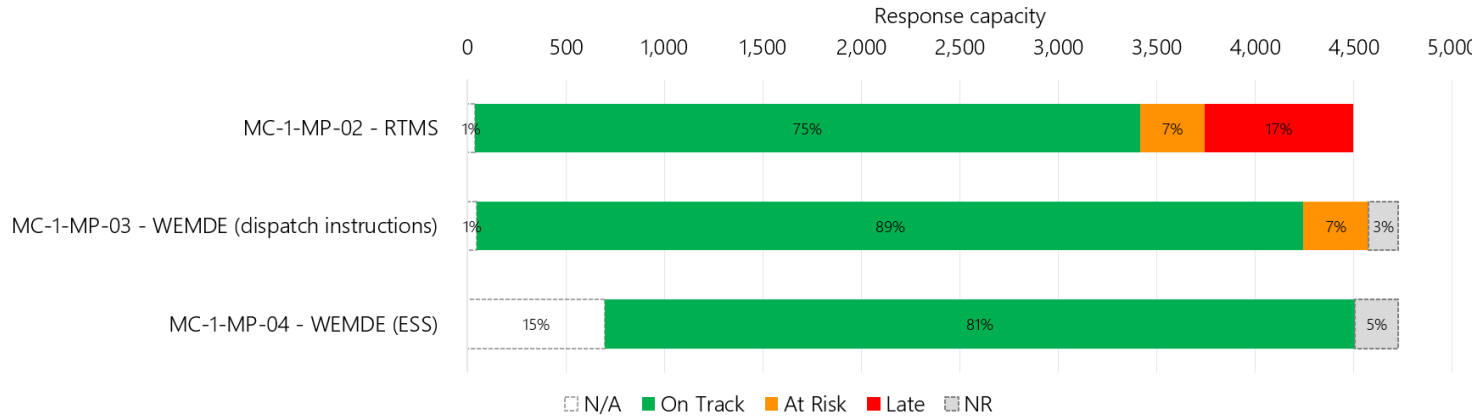
Relevant facilities are ready to provide Frequency Co-optimised ESS and /or Non Co-optimised ESS.

- 6MW in 10 of facility capacity is reporting progress 50% or better, with almost 2MW in 10 reporting progress of 25-49%
- Compared to Survey 7 there was a 39% increment in 50%-74%, whereas 29% reduction in 25-49% progress report
- A large majority of facility capacity (8MW in 10) reports status of **On Track** (the remainder are N/A or NR).

High Risk Items: Progress



High Risk Items: Status



Market Participant Market Capabilities – Items with moderate intrinsic risk



MC-1-MP-06 - WEMDE (Consuming other data)

Can consume and act on continuously published market information.

- Half of the capacity is reporting progress of more than 50% with most of the remaining capacity reporting progress in the 25-49% range.
- Almost 5MW in 10 moved up from 25-49% progress to 50-74% progress compared to Survey 7
- Most capacity (6MW in 10) reports status as **On Track** which is unchanged from survey 7.
- Almost 2MW in 10 now report status as **Late** with the remaining capacity (2MW in 10) reporting status as **At Risk**
- One MP reporting this item as **Late** noted that WEMDE UI continues to be a barrier and because it cannot be integrated with outages and other areas, this holds up our integrated development and testing, putting them behind schedule.

MC-3-MP-01 - Outage Management:

Able to submit and update equipment outages

- Little more than half of the capacity reports progress of 50% or more.
- Almost 1MW in 10 report progress in the 1-24% range compared to nil in Survey 7.
- Almost 5MW in 10 have progressed from 25-49% to 50-74%.
- Almost 6MW in 10 reports status as **On Track** which remains unchanged from Survey 7.
- Nearly 2MW in 10 now reporting status as **Late** reducing the **At Risk** responses from 43% in Survey 7 to 25%.
- One MP remarked that a barrier to updating this tool continues to be a delay in finalising the rules and procedure.

MC-3-MP-03 - Commissioning Test:

Ready to manage facility commissioning testing.

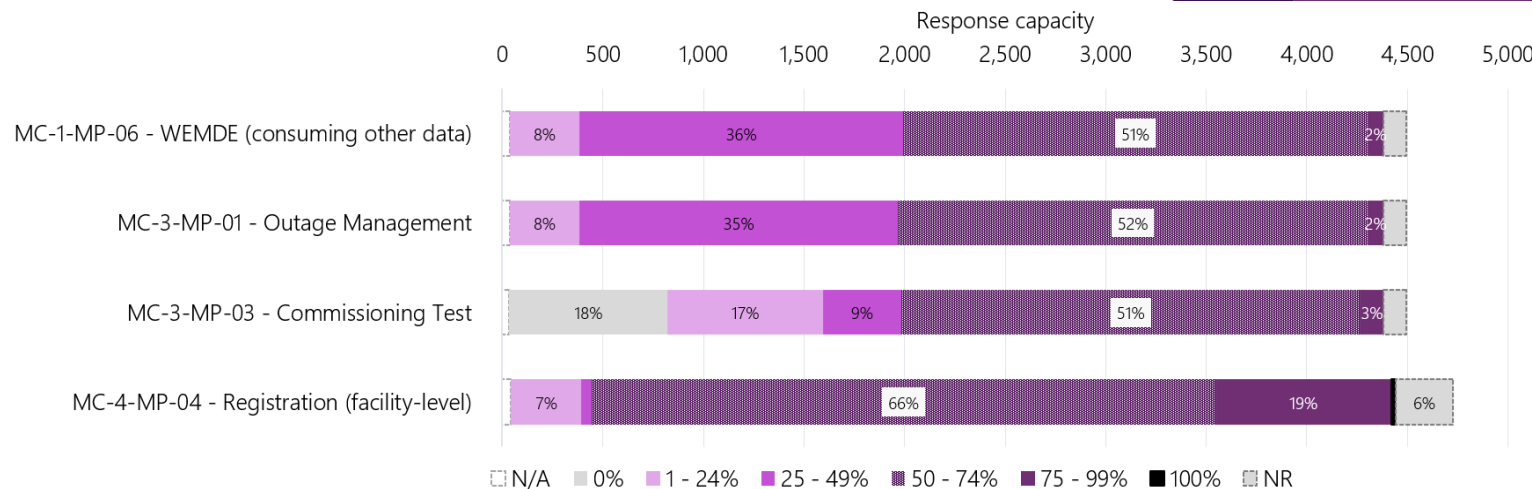
- Little more than half of the capacity reports progress of 50% or more.
- Nearly 2MW in 10 report progress of 1-24% and nearly 1MW in 10 report progress of 25-49%.
- Most capacity (more than 7MW in 10) reports status as **On Track** with remaining capacity of less than 3MW in 10 reporting status as **At Risk**
- Reports of **On Track** decreased from 82% in Survey 7 to 71% , driven by status degrade to **At Risk** by one MP.
- Overall, AEMO is comfortable with how this item is tracking.

MC-4-MP-04 – Registrations (Facility-level)

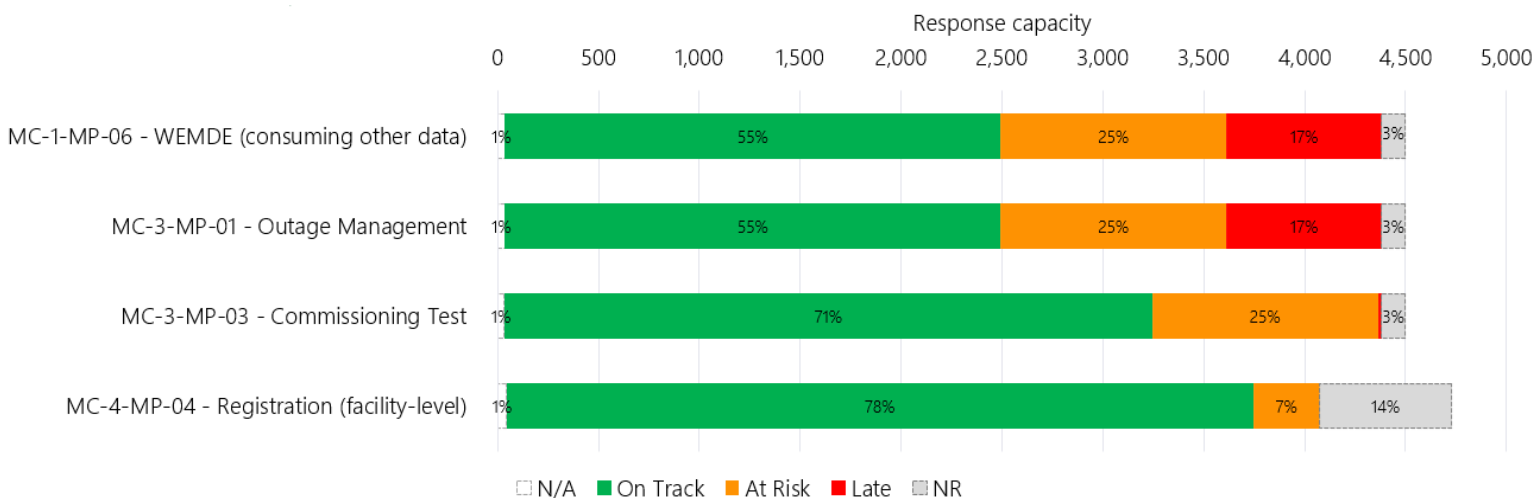
Comply with all facility registration requirements.

- Over three quarters of facility capacity reports progress 50% or more.
- Almost 1MW in 10 report progress of 1 -24%.
- A significant majority of capacity (about 8MW in 10) reports status as **On Track**, while most of the remainder is NR.
- Overall, AEMO is comfortable with how this item is tracking.

Mod. Risk Items: Progress



Mod. Risk Items: Status



Market Participant Market Capabilities – Items with low intrinsic risk



MC-1-MP-01 - Constraint Management:

Able to retrieve and assess constraint information to inform trading and investment decisions

- Just over half of facility capacity is reporting progress of 50% or more.
- Nearly 2MW in 10 are reporting progress of 25 – 49% and nearly 1MW in 10 are reporting progress of 1 – 24%.
- **At Risk** status is largely unchanged with a quarter of capacity reporting the same.
- **On Track** status is largely unchanged with 7MW in 10 reporting the same.
- AEMO is comfortable with how this item is tracking for Go-Live purposes.

MC-1-MP-05 - Commercially prepared for SCED

Participant-specific, but may include revision of contracts, trading practices, financial arrangements.

- Overall, AEMO is encouraged that just over half capacity is reporting progress of 50% or more. Capacity reporting 25 – 49% progress has reduced by half to 4MW in 10.
- There are now 2 MPs reporting status as **Late**.
- **At Risk** is reduced to about one quarter of the capacity and **On Track** is reduced to just over half the capacity.

MC-2-MP-01 - RCM - Year 1:

Understand new obligations and submission changes for Year 1 of 2021 and 2022 Reserve Capacity Cycle

- Unchanged from survey 7, almost all facility capacity is reporting **On Track** (with the remaining being N/A or NR).
- AEMO is comfortable with how MC-2-MP-01 tracking from the perspective of participants being ready for Go-Live.

MC-2-MP-02 - RCM - Year 2:

Understand NAQ impacts and process changes for the 2022 Reserve Capacity Cycle.

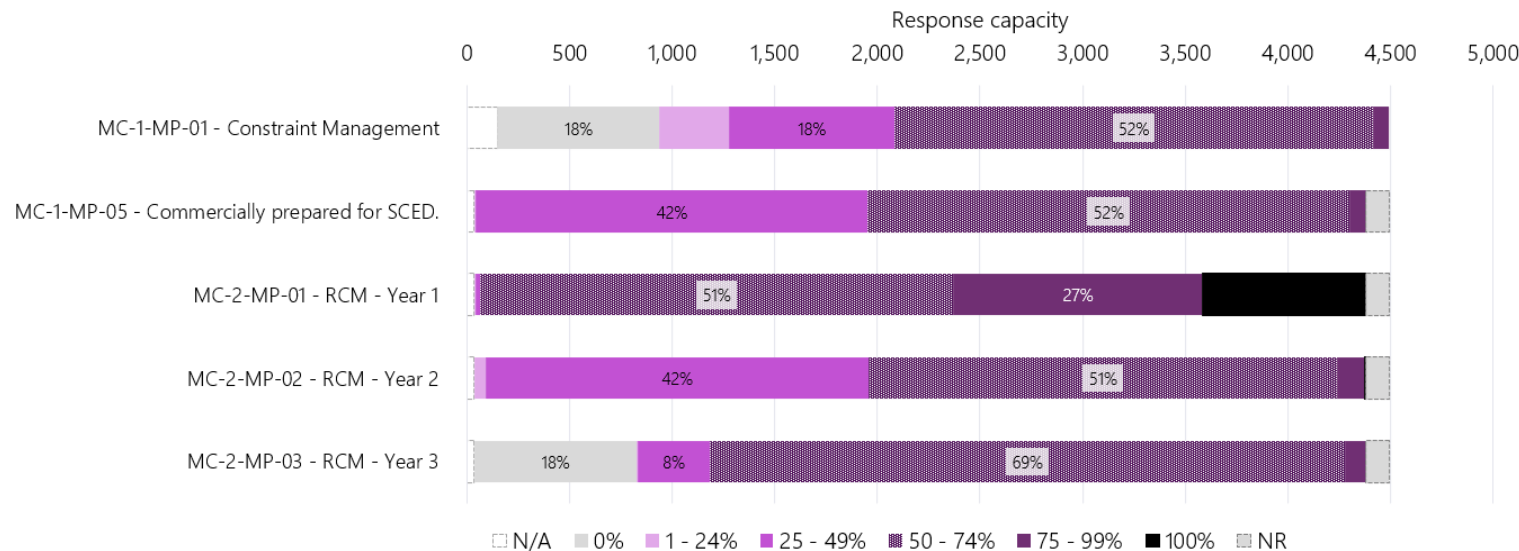
- Just over half of facility capacity is reporting progress of 50% or more and almost all remaining reports progress of 25-49%.
- Nearly all facility capacity is reporting status **On Track**.
- AEMO remains comfortable with how the item is tracking.

MC-2-MP-03 - RCM - Year 3:

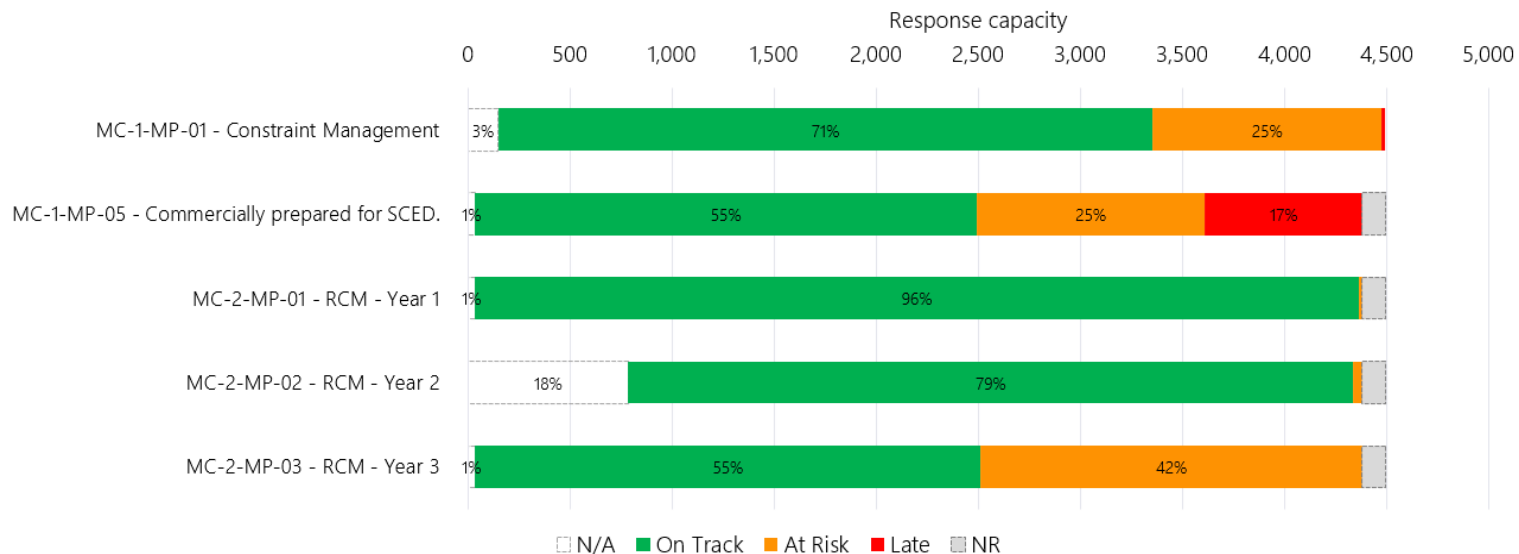
Understand new obligations for Year 3 of 2021 Reserve Capacity Cycle, including settlements.

- More than two thirds of the capacity reported progress over 50%.
- Nearly 1MW in 10 reported progress of 25-49 and nearly 1MW in 10 reporting progress of 0%.
- More than 5MW out of 10 reported status as **On Track** for this item.
- Facility capacity reporting **At Risk** has doubled from previous survey to be 4MW in 10.

Low Risk Items: Progress



Low Risk Items: Status



Market Participant Market Capabilities – Items with low intrinsic risk (cont'd)



MC-3-MP-02 - PASA (MT & ST):

Understand and respond to ST & MT PASA outcomes and comply with information provision requirements.

- Just over half of facility capacity reporting progress of 50% or more.
- Most facility capacity reporting **On Track** (5.5MW in 10) but a minority (2MW in 10) reports as **At Risk** which remains the same from the previous survey.

MC-3-MP-04 - GPS

Compliant with generator performance standards framework

- Nearly two thirds of facility capacity reporting progress of 50% or more (increased from 1MW in 10 from previous survey).
- Around three quarters of capacity reports this item as **On Track**, unchanged from previous survey and the remaining quarter **At Risk** or **Late**.

MC-4-MP-01 - Settlements Reform:

Able to complete settlement under new arrangements (including prudentials, CCA, IRCR)

- Nearly three quarters of facility capacity report progress of 50-74% compared to all facility capacity reporting less than 50% progress last report.
- A quarter of facility capacity report progress of 1-24%.
- Like previous report, almost three quarters of all capacity reports this item **On Track** and the remaining quarter **At Risk**.
- AEMO comfortable with how this item is tracking for Go-Live purposes.

MC-4-MP-02 - STEM:

Able to participate in STEM, following consequential modifications to this market.

- Just over half of facility capacity reporting progress of 50% or more.
- 3MW in 10 facility capacity is reporting progress of less than 25%, unchanged from last report.
- Some citing no progress since last survey and highlighted delays to STEM specifications continue be a barrier.
- Just over half of facility capacity reporting **On Track**, a quarter reports as **At Risk** and nearly a fifth report as **Late**.

MC-4-MP-03 - Registrations:

Comply with all participant registration requirements.

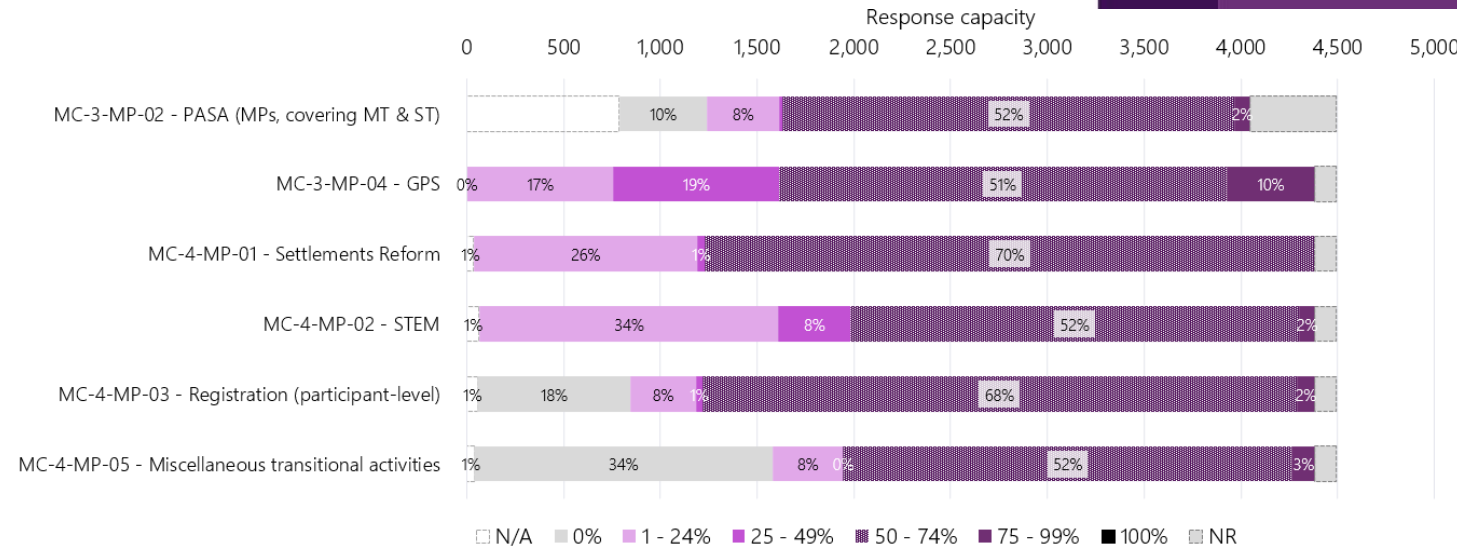
- Nearly three quarters of facility capacity report progress of 50% or more.
- Nearly 2MW in 10 report progress of 0%, unchanged from previous report.
- Unchanged from last report, most capacity reporting **On Track** (7MW in 10) and rest reporting **At Risk**.

MC-4-MP-05 - Miscellaneous transitional:

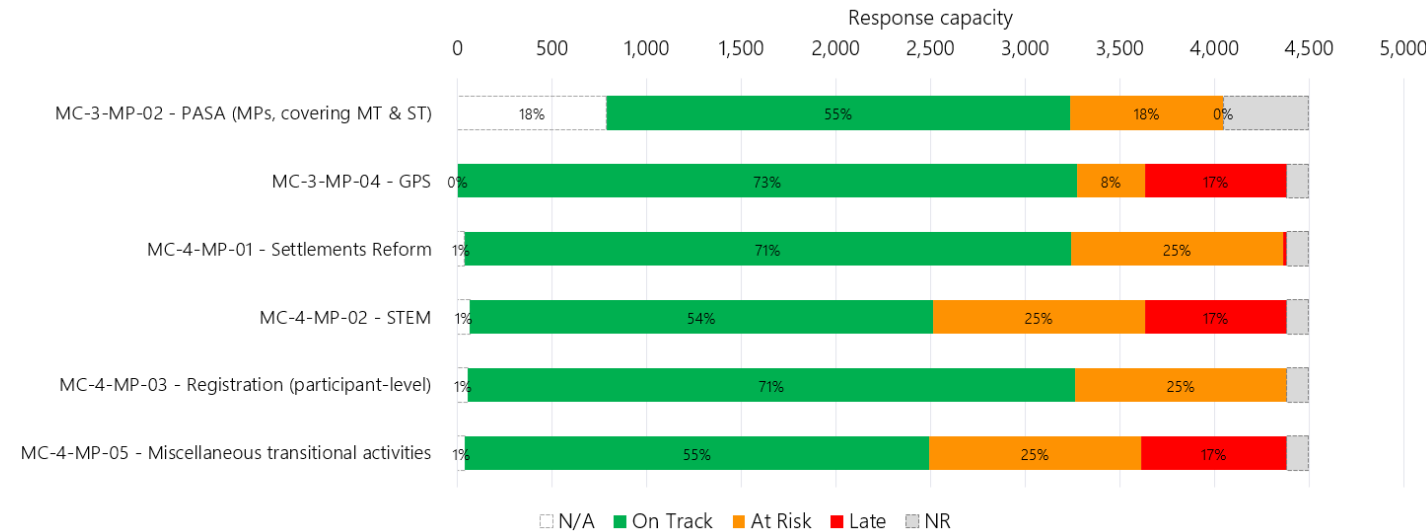
Miscellaneous transitional requirements – a catchall for other miscellaneous readiness requirements not covered by other capabilities.

- Just over half of facility capacity reporting progress of 50% or more with remaining capacity reporting under 24% progress.
- Just over half of facility capacity reporting **On Track**, a quarter reports as **At Risk** and nearly a fifth report as **Late**.

Low Risk Items: Progress



Low Risk Items: Status

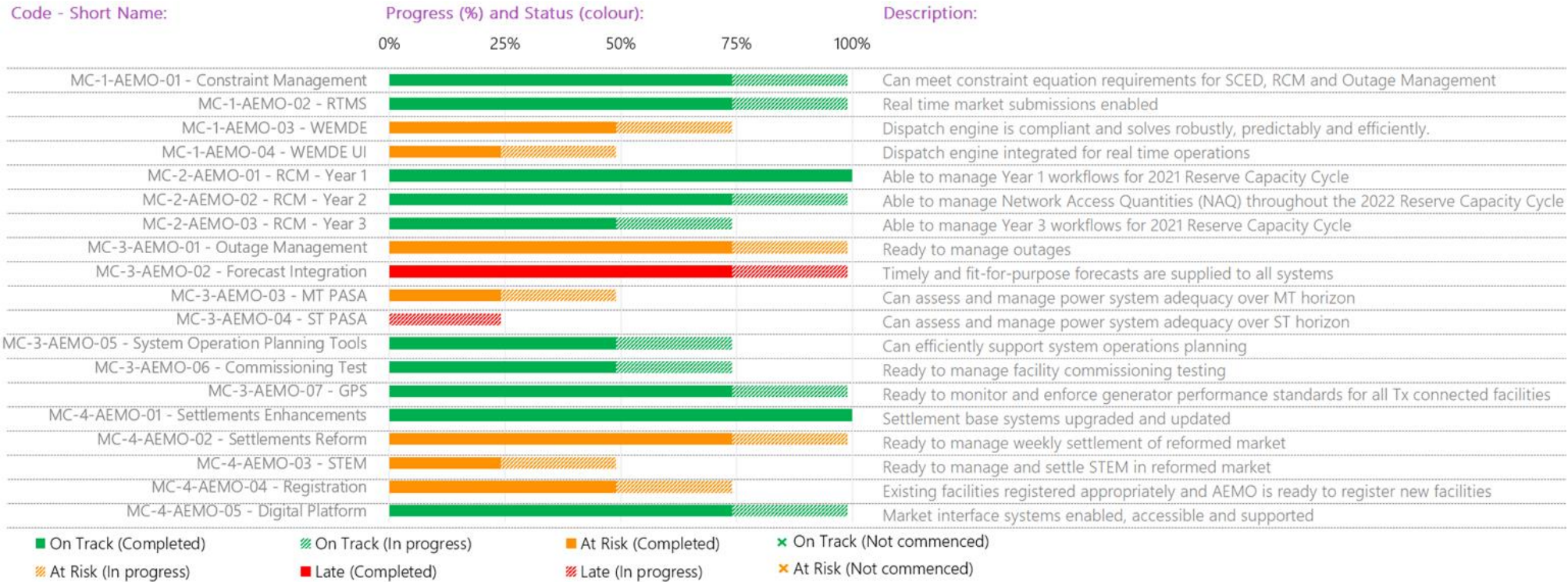


Results for Other Reporting Entities



AEMO's Readiness

Progress and status against all level 2 market capabilities



COMMENTS (cont.)

MC-3-AEMO-03 - MT PASA: Development phase progresses with the validation of WP 3b. A possible Solutions Architecture redefinition is being analysed.

MC-3-AEMO-04 - ST PASA: Project on still hold. Planning phase will resume when key resources are available.

MC-3-AEMO-05 - System Operation Planning Tools: Majority of the project scope was deferred out of WEM Reform. The relevant WEM Procedures will still be delivered and execution is progressing as planned.

MC-3-AEMO-06 - Commissioning Test: Majority of the project scope was deferred out of WEM Reform. The relevant WEM Procedures will still be delivered and execution is progressing as planned.

MC-3-AEMO-07 - GPS: Work completed and final closure procedures are in progress.

MC-4-AEMO-01 - Settlements Enhancements: Completed.

MC-4-AEMO-02 - Settlements Reform: Development is completed. Delays caused by the test backlog and test team velocity as integration planning between projects resulted in changes to Settlement. New Test Lead onboarded and reevaluation of testing estimation is in progress.

MC-4-AEMO-03 - STEM: Project was initiated behind schedule, however, work is now progressing and schedule is being recovered.

MC-4-AEMO-04 - Registration: Project replanned to be delivered in 2 releases due to uncovered additional complexity. A Change Request will be presented for the release of additional funds to return the budget to green, onboard extra resources and schedule review.

MC-4-AEMO-05 - Digital Platform: All critical milestones are on track for delivery. Market Participant Test was delayed due to problems with the Test environment, which has already been fixed with no delays to the schedule.

COMMENTS

MC-1-AEMO-01 - Constraint Management: Some development rework is continuing in conjunction with WEMDE integration. The work to build all remaining constraint equations required for go-live will continue through to Go Live.

MC-1-AEMO-02 - RTMS: Project work is completed and final closure procedures are in progress.

MC-1-AEMO-03 - WEMDE: Development of additional functionality is progressing with increased velocity due to additional resources onboarded. Some scope items will

require revision due to increased complexity. Support for Integration and E2E testing is in progress.

MC-1-AEMO-04 - WEMDE UI: MVP business requirements and functionality required to support Coordinated Market Trial are completed. A review of Velocity vs Stories remaining is in progress. Lack of clarity and onboarding delays present a risk to the project.

MC-2-AEMO-01 - RCM - Year 1: Completed.

MC-2-AEMO-02 - RCM - Year 2: Work nearly completed. Some minor API adjustments are being finalised.

MC-2-AEMO-03 - RCM - Year 3: Development is complete.

Integration and E2E testing are progressing as planned.

MC-3-AEMO-01 - Outage Management: Incorrect assumptions about Outage Management and Registration Reform interface required significant rework. Delay in the Market Participant Test due to test environment problems presents a risk to the schedule.

MC-3-AEMO-02 - Forecast Integration: The release of upgraded Metrix v7.2 impacted project closure as an additional test requirement was identified during tests causing major delays. New Project Manager and testing team onboarded.



Western Power's Readiness

Progress and status against all level 2 market capabilities

| Code - Short Name: | Progress (%) and Status (colour): | | | | Description: |
|--|--|-----|-----|-----|--|
| | 0% | 25% | 50% | 75% | |
| MC-1-NOP-01 - Customer connections | <div style="width: 100%; height: 10px; background-color: green;"></div> | | | | Customer connection policies and contracts are ready for new transmission generator access offers. |
| MC-1-NOP-02 - Limit Advice | <div style="width: 75%; height: 10px; background-color: orange;"></div> | | | | Able to provide non-thermal limit advice to AEMO for the development of network constraint equations. |
| MC-1-NOP-03 - SCADA | <div style="width: 100%; height: 10px; background-color: green;"></div> | | | | SCADA and communications are established to support individual facility bidding etc |
| MC-1-NOP-04 - GIA | <div style="width: 25%; height: 10px; background-color: green; border: 1px dashed black;"></div> | | | | GIA generators are transitioned to SCED. |
| MC-1-NOP-05 - Operational protocols | <div style="width: 50%; height: 10px; background-color: green;"></div> | | | | Synergy, Western Power and AEMO Control Rooms, activities, coordination and protocols are established. |
| MC-1-NOP-06 - NCESS | <div style="width: 50%; height: 10px; background-color: green;"></div> | | | | Can undertake NCESS Procurement to resolve network limitation issues. |
| MC-1-NOP-07 - RoCoF | <div style="width: 50%; height: 10px; background-color: green;"></div> | | | | Can demonstrate Rate of Change of Frequency (RoCoF) ride through capability. |
| MC-2-NOP-01 - Limit Advice for RCM | <div style="width: 100%; height: 10px; background-color: green;"></div> | | | | Able to provide thermal limit advice to AEMO for Reserve Capacity Cycles (2022 onwards). |
| MC-3-NOP-01 - Outage Intention Plans | <div style="width: 0%; height: 10px; background-color: red; text-align: center;">✘</div> | | | | Able to submit an annual Outage Intention Plan to AEMO. |
| MC-3-NOP-02 - Equipment list | <div style="width: 50%; height: 10px; background-color: green; border: 1px dashed black;"></div> | | | | Able to submit the expanded Equipment List (including secondary equipment). |
| MC-3-NOP-03 - Outage plans | <div style="width: 50%; height: 10px; background-color: orange;"></div> | | | | Able to plan and coordinate network outages with other participants, and submit network outages plans. |
| MC-3-NOP-04 - Commissioning Test | <div style="width: 0%; height: 10px; background-color: red; text-align: center;">✘</div> | | | | Able to support the assessment of Commissioning Test Plans. |
| MC-3-NOP-05 - GPS | <div style="width: 50%; height: 10px; background-color: green;"></div> | | | | Existing Transmission connected generator systems are GPS registered. |
| MC-4-MDA-01 - Weekly meter data | <div style="width: 50%; height: 10px; background-color: green;"></div> | | | | Can provide meter interval data on a weekly basis to enable Weekly Settlement. |
| MC-4-NOP-01 - Event and performance monitoring | <div style="width: 100%; height: 10px; background-color: green;"></div> | | | | High resolution data provided to AEMO to enable event monitoring and monitoring of generator performance. |
| MC-4-NOP-02 - ERA review | <div style="width: 0%; height: 10px; background-color: red; text-align: center;">✘</div> | | | | Able to support the periodic ERA Review and Study of the impact of Network Operator Outages on the market. |
| MC-4-NOP-03 - Coordinator of Energy review | <div style="width: 0%; height: 10px; background-color: red; text-align: center;">✘</div> | | | | Able to support the periodic Coordinator of Energy review of the Outage Planning process. |

- On Track (Completed)
- ▨ On Track (In progress)
- At Risk (Completed)
- ▨ At Risk (In progress)
- Late (Completed)
- ▨ Late (In progress)
- ✘ On Track (Not commenced)

Western Power comments

MC-1-NOP-01 - Customer connections: Customer policies and contracts updated and available on Western Power website (Aug 2021).

MC-1-NOP-02 - Limit Advice: WEM Procedure for Developing Limit Advice published (April 2021). Non-thermal Limit Advice for System Normal submitted to AEMO (Jun 2022). Non-thermal Limit Advice for AEMO Priority Circuits submitted to AEMO (Oct 2022), AEMO has yet to finalise all sets. Risk flagged with AEMO that earlier finalisation is a preference for Western Power to ensure that Western Power has capacity to provide any required updates ahead of the new market, as resources are now required to focus on "business as usual" and producing limit advice for post-market start. Non-thermal Limit Advice for planned outages at market start to be submitted to AEMO (Jul 2023). Internal processes and systems and resource structure to be defined and implemented (ahead of Jul 2023).

MC-1-NOP-03 - SCADA: All SCADA and communications have been established for all Market Participants that have requested them.

The final request was made to Market Participants to advise Western Power of any remaining SCADA work required to enable an existing Market Participant facility to participate in the new market. (WRIG 9 Feb 2023). New requests are now subject to Western Power's Customer Project lead times.

MC-1-NOP-04 - GIA: Western Power will need to develop and resource a plan to support AEMO activities to transition GIA generators from the GIA tool to WEMDE (Jul 2023). Development of this plan is dependent on AEMO sharing their Cutover Plan (and Rollback Plans) with Western Power (expected to commence in 2023 Q2).

MC-1-NOP-05 - Operational protocols: Synergy, AEMO and Western Power Control Rooms have commenced engagement, AEMO will continue to lead this engagement. AEMO / Western Power Operating Protocol published (Oct 2022). Internal processes and systems specific to the control room will be reviewed for change based on the outcomes of the Operating Protocol update and wider WEM Rules amendments.

MC-1-NOP-06 - NCESS: The NCESS framework has been applied for in progress Network Control Services (NCS) commercial events. Network Opportunity Map 2022 published (Oct 2022) Transmission System Plan 2022 published (Feb 2023). The NOM and TSP include potential non-network solutions that would be procured in accordance with NCESS. The existing Network Control Services (NCS) process and systems is being revised to align with the NCESS Framework. The revised process will be tested with the (first) next Western Power NCESS Trigger Event. Western Power has commenced discussions with Energy Policy WA on interpretation of Network Operator triggers.

MC-1-NOP-07 - RoCoF: Western Power will submit its application for RoCoF Accreditation in 2023 Q2.

MC-2-NOP-01 - Limit Advice for RCM: Thermal Limit Advice to enable the 2022 Reserve Capacity Cycle has been provided to AEMO (Jul 2022). Thermal Limit Advice to enable the 2022 Reserve Capacity Cycle has been provided to AEMO (Apr 2023). Internal process and system updates have been finalised to support the future cycles.

MC-3-NOP-01 - Outage Intention Plans: Work has not commenced on the Outage Intention Plan as this is dependant on AEMO to finalise the WEM Procedure Outages for industry consultation (Sep 2022). Western Power is required to submit its inaugural Outage Intention Plan in Mar 2025.

MC-3-NOP-02 - Equipment list: The Equipment List will be shared outside of structured system integration and will instead follow a semi-manual process to share on update. Internal semi-manual processes are now required to be developed to support this transaction.

MC-3-NOP-03 - Outage plans: AEMO has provided Western Power with draft API (Technical Specification) to enable Western Power to commence design. AEMO has advised that the next draft of the WEM Procedure Outages is to be shared in April 2023 with a final expected to be released for consultation. Market Testing of the integration between Western Power and AEMO outage systems was planned to start in April 2023, this has been delayed by 1-month until mid-May 2023, as a result of issues in AEMO's preceding test phase and environments. Implications of the delay to future phases and Go Live is unclear as the scope for Market Trials is not yet understood, however Western Power may need to investigate re-assignment of key resources to other activities should the delays extend beyond the current forecast date.

MC-3-NOP-04 - Commissioning Test: Expected Awaiting AEMO's release of the WEM Procedure Commissioning Test.

MC-3-NOP-05 - GPS: WEM Procedures published (Feb 2021). Generator Performance Standards: Relevant Generator Modification Guideline published (Jul 2022). Generator Performance Standards: Guideline for the Assessment of Technical Requirements final published (Dec 2022). The first generating system has been registered under the new Generator Performance Standards (Jan 2023). Assessment of Existing Transmission Connected Generators GPS assessments continue with engagement from Market Participants and AEMO.

MC-4-MDA-01 - Weekly meter data: Market testing commenced in April 2023 and will continue until the end of the month. Go Live on track for WEM Commencement.

MC-4-NOP-01 - Event and performance monitoring: Manual process implemented (Oct 2021). Data is being provided to AEMO as required.

MC-4-NOP-02 - ERA review: Awaiting further information. Internal processes and systems are required to be developed to enable this capability.

MC-4-NOP-03 - Coordinator of Energy review: Awaiting further information. Internal processes and systems are required to be developed to enable this capability.

Economic Regulation Authority's Readiness



Progress and status against all level 2 market capabilities

Code - Short Name:

Progress (%) and Status (colour):

Description:

0% 25% 50% 75% 100%

| Code - Short Name | Progress (%) and Status (colour) | Description |
|---------------------------------------|----------------------------------|--|
| MC-4-ERA-01 - Operate framework | 50% On Track (Completed) | Able to operate the new compliance framework |
| MC-4-ERA-02 - Surveillance | 25% Late (In progress) | Able to carry out market surveillance activities |
| MC-4-ERA-03 - Monitoring | 50% On Track (In progress) | Able to conduct compliance monitoring activities |
| MC-4-ERA-04 - Data exchange | 25% Late (In progress) | Establish data requirements and processes and systems for data exchange (e.g. with AEMO's systems) |
| MC-4-ERA-05 - SESSM | 25% Late (In progress) | Able to execute ESS monitoring/SESSM triggering |
| MC-4-ERA-06 - Market Power Mitigation | 25% On Track (In progress) | Able to carry out Market Power Mitigation activities |

■ On Track (Completed)
 ▨ On Track (In progress)
 ■ At Risk (Completed)

▨ At Risk (In progress)
 ■ Late (Completed)
 ▨ Late (In progress)

ERA comments

MC-4-ERA-01 - Operate framework: There is interdependency for this project with the work that EPWA is currently doing in terms of updates to the Regulations and also further changes to the compliance framework to be included in the WEM Rules. The ERA is proceeding with the development of its WEM procedure and related process and system changes based on the information it currently has from EPWA for the most recent changes. The ERA held a workshop in March 2023 on the WEM procedure and compliance priorities in the new market. Consultation on the procedure is intended to be held in June 2023 with the WEM procedure finalised by mid-Q3 2023. However, the exact timing for this will be dependent on the finalisation of EPWA's changes to the Regulations and WEM Rules. Associated internal process and system changes will be made concurrently.

MC-4-ERA-02 - Surveillance: EPWA and ERA continue to work on the data requirements for the new market. Access to AEMO subject matter experts is ongoing. AEMO is yet to confirm the data transfer mechanism.

MC-4-ERA-03 - Monitoring: The ERA's compliance and monitoring functions in the new market are dependent upon the data interfaces with AEMO's systems through the market surveillance data catalogue. AEMO's access to subject matter experts is ongoing. AEMO is yet to confirm the data transfer mechanism.

MC-4-ERA-04 - Data exchange: ERA will need to have data interfaces in place with AEMO's systems. This will be largely dependent on AEMO's intended design for data sharing arrangements with the ERA (and EPWA) for the new market. ERA and EPWA are awaiting confirmation from AEMO on the proposed data transfer mechanism, including potential interim solutions, and the timing for when these solutions can be in place.

MC-4-ERA-05 - SESSM: Project team has commenced working on ESS WEM Procedure. Consultation on the ESS WEM Procedure is planned for July 2023.

MC-4-ERA-06 - Market Power Mitigation: The ERA is considering the stakeholder feedback received on its draft Offer Construction guideline, feedback provided to EPWA on its exposure drafts of the market power mitigation amending rules, and the Tranche 6 amending rules gazetted on 31 March 2023. Both the Offer Construction Guideline and Trading Conduct guideline are in the drafting stage. Pending Governing Body approval, the ERA plans to publish both draft guidelines for a four-week consultation period in June 2023. The ERA plans to develop and consult on the market power monitoring protocol WEM Procedure in conjunction with its WEM Procedure on ESS monitoring and SESSM.

Next steps

- Continue with bi-monthly surveys and reporting cycle using the specific readiness criteria (market capabilities) reported against here.
- Release schedule:

| Survey/Report Number | Market Readiness Survey | Market Readiness Report |
|----------------------|-------------------------|-------------------------|
| 9 | End May 2023 | End Jun 2023 |
| 10 | End Jul 2023 | End Aug 2023 |

Appendices

AEMO's reasoning for risk ratings against Participant Market Capabilities

| Risk | Market Capability | Risk rating rationale |
|--------|--|--|
| High | MC-1-MP-02 - RTMS | A facility cannot participate in the real-time market (RTM) unless the participant can make submissions, which could in turn prevent AEMO from having access to this generating capacity and jeopardise system security. |
| High | MC-1-MP-03 - WEMDE (dispatch instructions) | If a significant proportion of facilities cannot receive and respond to Dispatch Instructions, this could jeopardise system security. |
| High | MC-1-MP-04 - WEMDE (ESS) | If a sufficient fleet of facilities are not ready to provide FCESS, WEMDE will be unable to reliably dispatch enough FCESS to maintain system security. |
| Medium | MC-1-MP-06 - WEMDE (Consuming other data) | The ability to consume market information is important from the perspective of participants that intend to monitor and respond to market conditions - for instance making use of the Look aheads to make trading decisions. AEMO doesn't consider this capability to be essential for the operation of the real-time market, but accepts that it is important commercially and time consuming for participants to build. |
| Medium | MC-3-MP-01 - Outage Management | A participant that lacks the ability to submit/log planned and forced outages will face compliance challenges and/or impose additional administration burdens on AEMO. However, provided that participants reflect facility availability in their RTM Submissions, WEMDE will continue to be able to solve correctly. |
| Medium | MC-3-MP-03 - Commissioning Test | Shortly after Go Live, some facilities are expected to need to submit Commissioning Test Plans (CTPs). An inability to use the new systems and processes may raise compliance issues for participants and administrative overheads for AEMO, but risks to system security should be manageable. |
| Medium | MC-4-MP-04 - Registration (Facility-level) | Facility classification and facility standing data must be accurate and complete given the dependencies of downstream systems on this information, including RTMS and WEMDE. A failure among participants to be ready to use the new system and processes will impose an administrative burden on AEMO, but risks to system security should be manageable. |
| Low | MC-1-MP-01 - Constraint Management | The information provided via the Congestion Information Resource is not required by participants to support real-time operations. Further, information on invoked constraints will be published via WEMDE UI anyway. |
| Low | MC-1-MP-05 - Commercially prepared for SCED. | The collective system/market has limited stake in the commercial readiness of individual firms. Rather this is an important area of work from the perspective of individual firms. |
| Low | MC-2-MP-01 - RCM - Year 1 | The Reserve Capacity Mechanism (RCM) doesn't strongly affect the RTM, thus this is similar to MC-1-MP-05. |
| Low | MC-2-MP-02 - RCM - Year 2 | The RCM doesn't strongly affect the RTM, thus this is similar to MC-1-MP-05. |
| Low | MC-2-MP-03 - RCM - Year 3 | The RCM doesn't strongly affect the RTM, thus this is similar to MC-1-MP-05. While participants may face unexpected refunds if they are not aware of their obligations around RTM that arise from RCM, AEMO does not consider this a systemic risk. |
| Low | MC-3-MP-02 - MT & ST PASA | The ability to consume PASA reports isn't required by participants to support real-time operations. While AEMO needs participants to provide the data necessary to support MT PASA, the risk of non-compliance is considered manageable. |
| Low | MC-3-MP-04 - GPS | Completing GPS will provide better information that improves planning and operational decision making and thus reduces risks. But the system/market can proceed without realising those benefits immediately (for instance because some generators haven't completed their GPS/GMPs). |
| Low | MC-4-MP-01 - Settlements Reform | Participants will vary in how sophisticated they wish to be in their systems to verify and reconcile settlement data, but provided they can download an invoice and pay it, the systemic risk posed by some firms not being ready in this area should be low. |
| Low | MC-4-MP-02 - STEM | Participants that need to participate in STEM face minimal changes to be ready and their participation in STEM is, in any case, optional. Similarly, submitting a bilateral submission should be straight forward. As in the case of settlement, the systemic risks should be low. |
| Low | MC-4-MP-03 - Registration (Participant-level) | Participant registration information should be straight-forward to update. |
| Low | MC-4-MP-05 - Miscellaneous transitional activities | At the moment, only one item is identified in this set and this item is considered to have a minimal impact on overall systemic risks (the item: Intermittent Loads, must have submitted all relevant information to support AEMO making a determination on contribution towards Contingency services). |

Survey invitees and response record since Survey 4

Note: reporting against specific readiness criteria was introduced with Survey 4

| PrimaryPID | Participant Name | All PIDs | Survey 4 | Survey 5 | Survey 6 | Survey 7 | Survey 8 |
|------------|---|---|----------|----------|----------|----------|----------|
| WPGENER | Synergy | WPGENER, WPRTL, MUMBIDA | TRUE | TRUE | TRUE | TRUE | TRUE |
| ALINTA | Alinta Sales Pty Ltd | ALINTA, WALKAWAY | TRUE | TRUE | TRUE | TRUE | TRUE |
| GRIFFINP | Bluewaters Power 1 Pty Ltd | GRIFFINP, GRIFFIN2 | TRUE | TRUE | TRUE | TRUE | TRUE |
| NEWGEN | NewGen Power Kwinana Pty Ltd | NEWGEN | TRUE | TRUE | TRUE | TRUE | TRUE |
| NGENEERP | NewGen Neerabup Partnership | NGENEERP, NGENNEER | TRUE | TRUE | TRUE | TRUE | TRUE |
| PERTHNRGY | Perth Energy Pty Ltd | PERTHNRGY, WENERGY | FALSE | TRUE | TRUE | TRUE | TRUE |
| MERREDIN | Merredin Energy | MERREDIN | FALSE | FALSE | FALSE | FALSE | TRUE |
| GLDFLPW | Goldfields Power Pty Ltd | GLDFLPW, STRNCRS | TRUE | FALSE | FALSE | FALSE | FALSE |
| TSLA_MGT | Tesla Corporation Pty Ltd | TSLA_MGT, TSLA_GER, TSLA_HLD, TSLA_KEM, TSLA_NOR, | FALSE | TRUE | TRUE | FALSE | FALSE |
| WARADGE | Bright Energy Investments | WARADGE, ALBGRAS, GRENOUGH, GRNOUGH | TRUE | TRUE | TRUE | TRUE | TRUE |
| TIWEST | Tronox | TIWEST | TRUE | FALSE | TRUE | TRUE | TRUE |
| KWINWTE | Kwinana WTE Project Co Pty Ltd | KWINWTE | TRUE | FALSE | TRUE | TRUE | TRUE |
| ALCOA | Alcoa | ALCOA | TRUE | FALSE | TRUE | FALSE | TRUE |
| ERRRF | East Rockingham RRF Project Co Pty Ltd | ERRRF | FALSE | FALSE | TRUE | FALSE | FALSE |
| PREMPWR | Wesfarmers Kleenheat Gas Pty Ltd | PREMPWR | FALSE | FALSE | FALSE | FALSE | FALSE |
| COLLGAR | Collgar Wind Farm | COLLGAR | FALSE | TRUE | TRUE | TRUE | TRUE |
| EDWFMAN | EDWF Manager Pty Ltd | EDWFMAN | FALSE | TRUE | TRUE | TRUE | TRUE |
| SUNAU22 | Merredin Solar Farm Nominee Pty Ltd | SUNAU22 | FALSE | FALSE | FALSE | TRUE | TRUE |
| LNDLFGP | Landfill Gas and Power Pty Ltd | LNDLFGP | TRUE | TRUE | FALSE | TRUE | TRUE |
| WGRES | Waste Gas Resources Pty Ltd | WGRES | FALSE | FALSE | FALSE | FALSE | FALSE |
| MBARKER | Mt.Barker Power Company Pty Ltd | MBARKER, DCWL, SKYFRM | FALSE | FALSE | FALSE | FALSE | FALSE |
| NSFPTNRS | Northam Solar Project Partnership | NSFPTNRS | TRUE | FALSE | TRUE | FALSE | FALSE |
| MPOWER | Metro Power Company Pty Ltd | MPOWER | TRUE | FALSE | TRUE | TRUE | FALSE |
| CTE | CleanTech Energy | CTE | FALSE | FALSE | FALSE | FALSE | FALSE |
| BLAIRFOX | Blair Fox Pty Ltd AFT The Blair Fox Trust | BLAIRFOX | FALSE | FALSE | FALSE | FALSE | FALSE |
| ENERNOC | Enel X Australia Pty Ltd | ENERNOC | FALSE | TRUE | FALSE | FALSE | FALSE |
| KARARA | Karara Energy | KARARA | TRUE | TRUE | TRUE | TRUE | TRUE |
| WATERCP | Water Corporation | WATERCP | FALSE | TRUE | TRUE | TRUE | TRUE |
| NWMNTMN | Northern Star | NWMNTMN | TRUE | FALSE | FALSE | FALSE | FALSE |
| SIMCOA | Simcoa Operations | SIMCOA | FALSE | FALSE | FALSE | FALSE | TRUE |
| ERMPOWER | ERM Power Retail Pty Ltd | ERMPOWER | TRUE | TRUE | TRUE | TRUE | TRUE |
| EGPA | Moonies Hill Energy | EGPA | FALSE | FALSE | TRUE | FALSE | FALSE |