



PROPOSED AMENDING RULES TO THE WHOLESALE ELECTRICITY MARKET RULES – TRANCHE 2

EXPLANATORY MEMORANDUM

Background

The detailed design of the new Wholesale Electricity Market (WEM) arrangements to be commenced on 1 October 2022 as part of the Energy Transformation Strategy is now complete. Throughout 2019-20, the Energy Transformation Taskforce (Taskforce) released 20 Information Papers outlining the features of the new WEM design and power system security and reliability arrangements. The new arrangements are to be implemented primarily through changes to the WEM Rules.

The first major set of Amending Rules to implement the new WEM was released on 24 July 2020 containing the foundation market parameters, the new Essential System Services (ESS) framework, the Supplementary ESS Procurement Mechanism and the new rules for scheduling and dispatch of energy and ESS. Prior to that, draft Amending Rules containing new arrangements for power system security and reliability and the framework for Generator Performance Standards had been released for consultation. Industry feedback received through these consultation processes has been incorporated in two tranches of Amending Rules, both of which have been released for a final round of stakeholder consultation:

1. **Tranche 1** Amending Rules, released on 12 October 2020, containing amendments to parts of the power system security and reliability framework and the Generator Performance Standards framework. The final week of consultation on this Tranche 1 expires on 19 October 2020.
2. **Tranche 2** Amending Rules, the subject of this explanatory memorandum, containing amendments to address stakeholder feedback to the draft rules released on 24 July 2020 and draft rules to implement the core operational components of the new WEM:
 - Monitoring and Compliance framework in the WEM
 - Operational Planning and PASA
 - Outage Management and Commissioning Tests
 - WEM Settlement

Consultation process for Tranche 2

The Exposure Draft of the Tranche 2 Amending Rules is available in the consultation section of the Energy Transformation Website at <https://www.wa.gov.au/organisation/energy-policy-wa/energy-transformation-strategy>.

Stakeholders are invited to provide written comment on this rules package by 5:00 PM Western Standard (Perth) time on 16 November 2020 to:

energytransformation@energy.wa.gov.au

The Energy Transformation Implementation Unit is also available on request to meet with interested stakeholders to discuss the Amending Rules. Contact can be made using the email address above.

Four meetings of the Transformation Design and Operation Working Group (TDOWG) have been planned to consult with stakeholders on the Tranche 2 Amending Rules.

| Date and time of TDOWG | Topics of Amending Rules | Relevant sections of the Amending Rules |
|---|---|---|
| 22 October 9:30 - 11:30 | Summary of stakeholder feedback on 24 July Exposure Draft | |
| | Monitoring and Compliance framework for the new WEM | Section 2.13 – 2.15 |
| | PASA | Section 3.16 -3.17 |
| 27 October 2020 9:30 – 11:30 | Outage Management and Commissioning Tests | Section 3.18 -3.21A |
| 30 October 2020 9:30 – 11:30 | WEM Settlement Part 1 | Section 9.1 – 9.7, 9.9, 9.11 – 9.21 Minor amendments in Ch-2, Ch-8 |
| 2 November 2020 9:30 – 11:30 | WEM Settlement Part 2 | Section 9.10, Appendices 2A, 2B and 2C |

Following the completion of the formal consultation period for Tranche 2, the Taskforce will make further amendments to the proposed Amending Rules as required. Following the consideration of stakeholder feedback, the Amending Rules will be submitted to the Minister for Energy for approval and gazettal.

The Taskforce has endeavoured to anticipate the drafting of future tranches of Amending Rules as part of the finalisation of Tranche 1 and Tranche 2. However, the development of future tranches of Amending Rules or the outcomes of public consultation may result in these draft rules being further amended in future.

Approach to drafting

Stakeholder feedback provided on the previous exposure draft, and other further amendments have been incorporated in green font to highlight the further amendments. Explanatory notes have also been updated to describe the amendment where one has been made, as well as where a suggestion did not result in an amendment. Further feedback is not being sought on these amendments. However, where interdependencies with the new draft rules exist, industry is welcome to provide feedback if errors exist.

New draft rules related to Monitoring and Compliance, Outage Management and Commissioning Tests, PASA, and WEM Settlement, and other minor amendments in this document have been presented in blue font with attendant explanatory notes to clarify policy intent where necessary.

Monitoring and Compliance

Amendments relating to monitoring and compliance seek to ensure the framework is efficient and future-ready; obligations are easy to interpret, with unambiguous and transparent language. The amended compliance framework ensures decisions will be consistent, repeatable and predictable and that enforcement and penalties will be risk-based and proportionate. The new framework also provides for improved procedural fairness and responsiveness.

Section 2.13 of the Tranche 2 Amending Rules outlines the Economic Regulation Authority (ERA) and the Australian Energy Market Operator's (AEMO) monitoring of compliance in the WEM.

The ERA will continue to monitor all Rule Participants behaviour for compliance with the WEM Rules.

AEMO will retain its existing role of monitoring real-time dispatch compliance (Clause 2.13.7) with an additional requirement to assist the ERA's compliance investigations with targeted information and analysis, as required (Clause 2.13.8).

Rule Participants will be required to self-report breaches, or suspected breaches, of their compliance with WEM Rules and WEM Procedures to the ERA. A template for reporting and list of prescribed information to be provided will be provided in a WEM Procedure owned by the ERA. Rule Participants may still report a suspected breach by another Rule Participant, but must provide evidence when doing so. Breaches of Chapter 3A obligations (related to Generator Performance Standards) will follow the processes contained in that chapter (see Tranche 1 Amending Rules package).

The ERA will no longer be required to investigate all alleged breaches. Breaches that are self-reported and rectified by a Rule Participant may have investigation of the breach suspended or closed by the ERA. The ERA will apply a risk assessment to alleged breaches to determine what must be investigated. The risk assessment will be required to be outlined in a WEM Procedure.

The ERA will continue to be responsible for compliance and enforcement in the WEM, including being conferred new powers to issue civil penalties for WEM Rules designated as Category B and C civil penalty provisions, issue infringements on all civil penalty provisions. The ERA may also make certain orders relating to ceasing action, taking action to remedy a contravention, and implementing a compliance program. Financial penalties will be distributed according to Financial Penalty Distribution (section 9.21, see financial penalty distribution section below).

The framework for infringements will be outlined in the WEM Regulations and will largely follow the process for issuing a civil penalty notice. The Taskforce's intent is to ensure infringements are 20 per cent of the maximum first contravention civil penalty, as outlined in Schedule 1 of the Regulations.

Amendments to sections 2.13.50 to 2.13.55 will require the ERA to publish on a public breach register all contraventions that have been issued with a civil penalty or infringement. The ERA may include other contraventions on the public breaches register in accordance with the WEM Procedure.

The Electricity Review Board (ERB) will no longer have alleged breaches of Category B and C civil penalty provisions brought before them unless relating to specific orders such as the suspension, disconnection or cancellation of a Market Participant's registration. The ERB will

continue to be responsible for reviewing reviewable decisions, adjudicating on appeals, and making orders as set out in the WEM Regulations and WEM Rules.

Section 2.14 outlines the audit and compliance reporting required for AEMO and a Network Operator. Existing requirements for AEMO market audit and compliance reports and the ERA compliance reports will continue unchanged and be provided to the Minister for Energy. The ERA will be required to report on the Network Operator's compliance with the WEM Rules, which will include self-reported breaches and any investigations conducted on the Network Operator and provided to the Minister for Energy. All compliance reports will be published by the ERA on its website.

WEM Procedures relating to monitoring and compliance are outlined in section 2.15 of the Tranche 2 Amending Rules.

Operational Planning and PASA

The Projected Assessment of System Adequacy (PASA) rules that address operational planning of the power system are set out in revised sections 3.16 and 3.17.

Medium Term PASA (MT PASA) is covered under section 3.16 and Short Term PASA (ST PASA) is covered under section 3.17 of the current WEM Rules. These draft Amending Rules consolidate much of the duplication in sections 3.16 and 3.17 to reflect the Taskforce decisions outlined in its [Operational Planning and PASA Framework](#) Information Paper. AEMO must publish the MT PASA at least each week of the forward 36-month horizon, and the ST PASA at least each day of the forward seven-day period.

The Amending Rules now also set out an explicit objective of the MTPASA and ST PASA to provide clarity and guidance to AEMO and Rule Participants on the principles AEMO must give regard to when preparing the MT PASA and ST PASA.

Section 3.16 further outlines the obligations of Rule Participants to provide information to AEMO to enable the preparation of the MT and ST PASA. Most of the detail is required to be contained in the WEM Procedure. However, the core requirements, which are linked to the objectives, are specified in clause 3.16.8

The new replacement section 3.17 sets out obligations with respect to Low Reserve Conditions. These are conditions where AEMO considers there may not be sufficient capacity to meet the expected demand forecast, the expected ESS requirements, or there may be a threat to maintaining Power System Security without the risk of load shedding. This section creates a head of power for AEMO to declare a Low Reserve Condition, publish reports outlining details of the Low Reserve Condition Declaration, and develop a WEM Procedure that sets out how AEMO will assess a Low Reserve Condition and make a Low Reserve Condition Declaration.

Outage Management and Commissioning Tests

The Outage management framework has been set out in revised sections 3.18 to 3.21 of the draft Amending Rules.

These draft Amending Rules consolidate much of the duplication in sections 3.18 and 3.19 of the current WEM Rules to reflect a single-step outage approval process. The previous onerous process of accepting and then approving an Outage has been replaced with a more streamlined single-step Outage approval process.

The definition of outage is amended in clause 3.18.3. This definition builds on the definitions of “unavailability” introduced by RC_2013_15 and RC_2014_03, and has been restructured to specifically relate to the definition of an Outage.

New section 3.18A sets out the obligations and requirements with respect to outage submissions. The Equipment List (and the new Self-scheduling Outage Facility List) is proposed to be expanded to include secondary equipment (e.g. protection schemes, SCADA/communications equipment, etc), as an outage of those types of equipment can have significant power system security implications. New section 3.18B sets out the obligations and requirements with respect to the submission of Outage Plans. New section 3.18C sets out Outage coordination requirements between Market Participants and Network Operators. Where an Outage sought by one entity may impact another, the Amending Rules require these parties to coordinate and submit the results of their coordination to AEMO. AEMO will have the ability to make the final decision acting in a reasonable way and giving regard to an order of principles set out in clause 3.18C.5.

Section 3.18D sets out the obligations with respect to revisions of Outage Plans and outlines when a Rule Participant is able to modify or revise an Outage Plan.

AEMO’s obligations in respect to Outage evaluation are set out in section 3.18E. AEMO is required to undertake an Outage evaluation as soon as practicable following an Outage Plan submission, notify the relevant Rule Participant of the outcome of the Outage evaluation and publish the status of the Outage Plan.

Section 3.18F outlines the ability for a Market Participant or Network Operator to seek a revision from the ERA of the inclusion of their Equipment List Facility, and the ERA’s processes in considering such a request.

Section 3.18G sets out the ERA’s five-yearly review of the outage planning process that it must conduct starting from market start, and with the assistance of AEMO.

Outage compensation is set out in section 3.18H. The existing ability for Market Participants to claim compensation for late Outage recall by AEMO, under certain conditions, has been preserved. Network Operators will no longer be able to claim compensation for late Outage recall. There is no history of Outage compensation having eventuated in the WEM thus far, and the likelihood is even lower under the new Outage management framework.

New section 3.19 outlines the new concept of an Annual Consolidated Outage Intention Plan which AEMO will prepare and publish every year to provide information about known Outages to Rule Participants. Outage Intention Plans will replace the somewhat unclear and onerous current provisions which enable AEMO to require Market Participants to provide information about their future availability.

Market Participants and Network Operators will be required to submit a yearly Outage Intention Plan to AEMO.

The intention is that Outage Intention Plans will be used by all Market Participants and Network Operators to plan Outages, with any conflicts to be resolved before AEMO publishes an Annual Consolidated Outage Intention Plan.

Section 3.21 sets out obligations related to Forced Outages. Clause 3.21.2(b) requires full preliminary Forced Outage notification information to be provided to AEMO as soon as practicable, best endeavours to provide as much information as is known within 24 hours, and in any event latest within 15 calendar days. This section also sets out the calculations for Planned Outage and Forced Outage quantities.

New section 3.21A sets out obligations related to Commissioning Tests. Commissioning Tests are required to support the reliable operation of Facilities and equipment, and to confirm the capability of Facilities and equipment to meet certain standards and provide certain services. Required tests can also create risks to power system security and reliability, and so must be planned and coordinated. The existing commissioning test arrangements are cumbersome and do not allow for flexibility in adjusting tests close to real time. Testing often requires coordination between AEMO and the Network Operator and the current process can be confusing for Market Participants, including understanding the information required and when it is required.

New section 3.21A:

- clarifies the various types of tests for which AEMO's approval is required;
- clarifies the submission timelines for various types of tests, allowing for varying timelines;
- clarifies the information requirements and approval process; and
- allows certain flexibility to accommodate real-time testing requirements.

Market Settlement

Chapter 9 and appendices 2A, 2B, and 2C outline the market settlement calculations for the new WEM. Minor consequential changes have been made in Chapters 2, 6, 7, 8 and 11.

Chapter 9 has been substantially restructured for ease of reading and to reflect the new ESS framework. Amendments to reorder sections and clauses have not been marked up in the Amending Rules.

Settlement timeline

Market settlement for both Short Term Energy Market (STEM) and Non-STEM (NSTEM) components will occur on a weekly basis, with the Trading Week commencing at 8 AM on each Saturday (this reflects that market start – 1 October 2022 – is a Saturday). All settlement components will be included in a single settlement statement and invoice (there will no longer be separate statements and invoices for STEM and NSTEM, and the concept of NSTEM has been removed from the WEM Rules).

STEM and NSTEM items will be consolidated into a single settlement timeline as follows:

- Interval meter deadline – no later than 5 PM 17 days after the end of the Trading Week
- Settlement statements and invoices issued – no later than four business days after the Interval Meter Deadline (generally a Monday, except if there are public holidays).
- Settlement day – no later than two business days after settlement statements and invoices are issued (generally a Wednesday, except if there are public holidays).
- Deadline for a Notice of Disagreement – first business day of week 45 after the Trading Week. (There will be a single Notice of Disagreement Deadline).

Adjusted settlement statements will be issued on the same day original settlement statements and invoices are issued in the following weeks after the Trading Week:

- Adjustment 1: week 8
- Adjustment 2: week 35
- Adjustment 3: week 51

The new settlement timeline is outlined in section 9.3 and the processes for issuing settlement statements and invoices (including adjusted settlement statements) are outlined in sections 9.14-9.18.

Existing sections 9.4 and 9.5 and clause 9.16.2(b), which relate to the Reserve Capacity Mechanism, have been deleted from Chapter 9 and will be included in Chapter 4 in the Tranche 3 Amending Rules to be released in mid-October 2020.

Settlement calculations

Market settlement will occur at 30-minute Trading Intervals from Market Start to 1 October 2025, when five-minute settlement is planned to commence (and the Trading Interval will align with the five-minute Dispatch Interval). These Amending Rules set out the calculations for market settlement from Market Start. Amendments to settlement calculations for five-minute settlement are not included in these Amending Rules and will be prepared following Market Start.

The settlement calculations for a Market Participant are included in sections 9.6 to 9.13. An illustration of the high-level components that are inputs to the net settlement amount is provided in Appendix 1 of this document.

Section 9.4 will outline the data AEMO must prepare for settlement equations. This section will be added in a future Amending Rules tranche.

Section 9.5 includes calculation of the Metered Schedule (previously in Chapter 6 of the WEM Rules), and a Market Participant's Contributing Quantity which is used to calculate the share of Market Participant Fees and distribute the proceeds from a Financial Penalty to Market Participants.

Net settlement (section 9.6)

The daily net settlement amount for a Market Participant is the sum of the daily amount for each of the following settlement components: STEM, Reserve Capacity, Real-Time Energy, ESS, Outage Compensation, and Market Participant Fees. This daily amount will be summed over all the Trading Days in the Trading Week to calculate the weekly net settlement amount for the Market Participant.

The settlement amount for each settlement component for each Market Participant will be calculated in sections 9.7 to 9.12. It is initially calculated by Trading Interval and then summed to Trading Day.

The sections below summarise the calculations for each settlement component for a given Market Participant.

STEM settlement (section 9.7)

The STEM settlement amount calculation is unchanged from the existing rules, other than to amend the notation for consistency with other settlement equations and to add additional calculation granularity.

Reserve Capacity Settlement (section 9.8)

Section 9.8 will be drafted in the Tranche 3 Amending Rules.

Real-Time Energy settlement (section 9.9)

The Real-Time Energy settlement amount for a Market Participant for a Trading Interval is the sum of the:

- Energy Trading Amount, being the 30-minute Reference Trading Price times the Net Trading Quantity;
- Energy Uplift Payable amount, being the sum of the Uplift Payments payable to each Market Participant's Registered Facility for each Dispatch Interval in the Trading Interval; and
- Energy Uplift Recoverable amount, being the sum of the amounts recoverable for Uplift Payments.

Energy Uplift Payments

An Energy Uplift Payment will be provided to a Registered Facility in a given Dispatch Interval to 'make it whole' if *all* the following conditions are met (see clauses 9.9.7 to 9.9.12):

- The Cleared Quantity and Congestion Rental are each greater than zero;
- The Marginal Offer Price (bid) is greater than the five-minute Energy Market Clearing Price; and
- The facility is not in a binding down ramp rate or a binding ESS enablement minimum.

The Energy Uplift Payment is calculated as:

- the Marginal Offer Price less the 30-minute Reference Trading Price; multiplied by
- an estimate of the Metered Quantity (which must be greater than zero for an Energy Uplift payment to be provided).¹

Essential System Services settlement (section 9.10)

The ESS settlement amount for a Market Participant for a Trading Day is the ESS amount payable, less the ESS amount recoverable for the Market Participant.

ESS amounts payable

The ESS amount payable for a Market Participant in a Trading Day is the sum of all the amounts payable for each ESS to that Market Participant for that Trading Day.

A Market Participant will be paid for provision of each ESS on a Dispatch Interval basis, which will be summed to a Trading Interval and Trading Day amount. The Regulation Raise and Regulation Lower amounts are summed to a single Regulation payable amount to input to ESS cost recovery calculations (see below).

¹ An estimate is used as five-minute meter data is not available until after five-minute settlement is implemented.

The amount payable to a Market Participant for a given ESS in a given Dispatch Interval is the sum of the amount payable to each of its Registered Facilities in that Dispatch Interval. The amount payable to each Registered Facility is the sum of the:

- Market Clearing Price for the relevant ESS, multiplied by 5/60 (to reflect a five-minute Dispatch Interval), multiplied by the relevant enablement quantity, multiplied by the relevant Performance Factor (all Performance Factors will be set to one at Market Start, except for Contingency Reserve Raise); and
- Availability Payment for the relevant ESS; less
- Supplementary ESS Mechanism (SESSM) Refund (see appendix 2C).

ESS cost recovery

The ESS amount recoverable from a Market Participant in a Trading Day is the sum of all the amounts recoverable for each ESS from that Market Participant for that Trading Day.

The total ESS recoverable from a Market Participant for a Trading Interval is the sum of the amounts recoverable for each ESS Service for each facility (including non-registered facilities as applicable) for the Trading Interval.

The cost of each ESS will be recovered on a 'causer-pays' basis. Until five-minute settlement commences, this must occur on a 30-minute basis due to meter data only being available at this resolution. The exception to this is Contingency Reserve Raise, where the cost is allocated per Dispatch Interval using the dispatch engine outputs (rather than meter data).

A summary of the cost recovery method is as follows (clauses 9.10.29 – 9.10.41):

| ESS | Recovered from | Cost allocation Method | Granularity |
|--|--|---|-------------------|
| Contingency Reserve Raise | Registered Facilities (scheduled and semi-scheduled generators greater than 10 MW) | Runway share (see appendix 2A) | Dispatch Interval |
| Contingency Reserve Lower | Non-Dispatchable Loads | Consumption Share | Trading Interval |
| Rate of Change of Frequency (RoCoF) Control Service | For the Minimum RoCoF Control Requirement – from loads, generators and the Network Operator if they cannot demonstrate their Ride-Through Capability is greater than the RoCoF Safe Limit ² | An equal share to each non-exempt group, and then by Metered Schedule within a category (see appendix 2B) | Trading Interval. |
| | For the Additional RoCoF Control Requirement – from Registered Facilities (scheduled and semi-scheduled generators) | Runway share (see appendix 2A) | |

² It is expected that the Network Operator and most generators will be able to demonstrate their Ride-through Capability to meet the RoCoF Safe Limit and be eligible for an exemption from the costs of RoCoF Control Service. It is expected that the Network Operator will be able to exempt itself from incurring the RoCoF Control Service costs. However, for completeness the equations in sections 9.6 and some in 9.10 have been amended to refer to Rule Participant to capture the Network Operator in case its exemption is invalidated for any reason and therefore is liable for RoCoF Control Service costs.

| | | | |
|-------------------------------------|---|--|-------------------|
| Regulation (Raise and Lower) | From Semi-Scheduled Facilities, Non-Scheduled Facilities and Non-Dispatchable Loads | Metered Schedule (Contributing Quantity) | Trading Interval. |
| System Restart | Market Participants with consumption share | Consumption Share | Trading Interval. |

Outage compensation settlement (section 9.11)

Section 3.18H enables a Market Participant to seek compensation if AEMO rejects an approved outage, submitted at least one year in advance, within 48 hours of it when it was scheduled to commence. This outage compensation is the subject of section 9.11.

The outage compensation settlement amount for a Market Participant for a Trading Interval is the outage compensation payable to that Market Participant, less the amount of Outage compensation recoverable from that Market Participant.

The amount payable to a Market Participant is as calculated in clause 3.18H.3.

The amount recoverable from a Market Participant is calculated based on the Market Participant's consumption share for the Trading Intervals for which the outage would have occurred.

Market Participant fees settlement (section 9.12)

Market Participant fees are calculated by Trading Day as the sum of Market Participant Market Fees and Market Participant Regulator Fees. These are calculated by multiplying the Market Fee Rate or the Regulator Fee Rate (as applicable, as calculated in Chapter 2) by the (absolute value of the) Market Participant's Metered Schedule for each Registered Facility and Non-Dispatchable Load for each Trading Interval in the Trading Day. This is consistent with the current approach.

Service Fees (section 9.13)

The calculation of Service Fees payable to AEMO and the ERA is unchanged from the current rules, other than to amend the notation for consistency with other settlement equations and to increase calculation granularity.

Financial Penalty Distribution (section 9.21)

Chapter 11 defines a 'Financial Penalty' as a Civil Penalty or an Infringement. The ERA can currently issue a Civil Penalty under the WEM Regulations. Amendments to the WEM Regulations will be progressed in early 2021 to enable the ERA to also issue Infringements (See Monitoring and Compliance section above).

All Financial Penalties will be distributed to Market Participants, except the offending Market Participant (being the Market Participant that paid the Civil Penalty). Each Market Participant's share will be calculated based on its Metered Schedule over the 12 months prior to the Financial Penalty being issued (this is the same share used to calculate Market Participant Market Fees).

Consequential amendments

Minor amendments have been made to other chapters, including:

- sections 2.37 to 2.43: to change references from Market Participant to Rule Participant so obligations relating to prudential obligations and credit support apply to the Network Operator given it may become liable to pay certain ESS costs.

- deletion of clauses 3.14, 3.22, 6.6.3G, 6.13 to 6.17, and 6.21 as they are no longer required or have been moved to chapter 9;
- clause 7.13.1x6: requiring AEMO to prepare and publish additional information relating to facility and network contingencies (used for ESS cost recovery) and congestion rental (used for Uplift Payments);
- clause 7.14: adding the calculation of congestion rental which is an input into the Uplift Payment calculation in Chapter 9;
- chapter 8: to reflect the weekly settlement timeline and streamline administrative processes;
- chapter 11 (glossary): adding, removing, or amending defined terms as necessary; and
- administrative amendments, for example removing references to System Management and replacing Market Rules with WEM Rules, throughout as necessary.

WEM Rule areas to be completed

Amending Rules for the following areas of WEM design will be progressed in early-2021:

1. Transitional arrangements for ESS accreditation and for other rules that are required to be operative before 1 October 2022 to enable the new WEM to commence.
2. WEM Rule sections related to System Restart and Demand Control.
3. The registration framework including clauses related to Standing Data.
4. The framework for market power mitigation, including good faith bidding obligations for Market Participants, details on ERA's offer construction guidelines, and other related matters.
5. The market information framework and confidentiality status of market information.

Summary of Stakeholder Feedback on Amending Rules released on 24 July 2020

Stakeholders were invited to provide written submissions on the Exposure Draft of the Amending Rules released on 24 July 2020 by 5:00PM Western Standard (Perth) time on 28 August 2020. Seven written submissions were received. The Taskforce has considered this stakeholder feedback and made amendments to the Amending Rules as required.

The Taskforce also reviewed stakeholder feedback received at the six Transformation Design and Operation Working Group (TDOWG) sessions that were conducted as part of consultation on the Amending Rules. The Taskforce has captured and addressed this stakeholder feedback within the Amending Rules. The below summary outlines how the Taskforce has addressed stakeholder feedback. Where the Amending Rules were altered as a result of stakeholder feedback, this has been made clear in explanatory notes within the Amending Rules.

Essential System Services and PSSR framework (sections 2.34A and chapter 3)

Essential System Service Accreditation (section 2.34A)

Based on stakeholder feedback, the Taskforce has amended clause 2.34A.3 to enable AEMO to request updated information already provided in Standing Data. The Taskforce notes it is

important that AEMO can request updated information (even for data currently provided in Standing Data) and apply the same level of due diligence afforded under the Amending Rules for new data.

The Taskforce has amended clause 2.34A.3 that provides power to AEMO to request Market Participants to update Standing Data at any time, not only for ESS.

The Taskforce has clarified in the rules that the costs of any tests or re-tests required of a Facility for the purposes of ESS accreditation will be borne by the relevant Market Participant.

Emergency Operating State (section 3.5)

Stakeholder feedback recommended limiting clause 3.5.5(a) to Facilities that are accredited to provide ESS. The original drafting of clause 3.5.5(a) would have allowed AEMO to direct any Facility to provide ESS, even Facilities that are not accredited to provide ESS.

The Taskforce decided to limit clause 3.5.5(a) only to facilities that are accredited to provide ESS.

Essential System Service Standards (section 3.10)

Based on stakeholder feedback, the Taskforce has moved clauses 3.10.4 and 3.10.5 to dispatch compliance section covered in 7.10. The intent of clauses 3.10.4 and 3.10.5 is to be clear about what a Facility must do when dispatched for Contingency Reserve or Regulation. This is an aspect of dispatch compliance and these clauses will be moved to section 7.10.

Review of Essential System Service Process and Standards (section 3.15)

In response to stakeholder feedback for clause 3.15.1C, the Taskforce has included a new subclause requiring the ERA to include the processes and effectiveness of the SESSM (if it is triggered) as part of its three-yearly review of ESS processes and standards.

Stakeholder feedback also included the suggestion for clause 3.15.1C(b) that the ESS review to be conducted by the ERA should also consider oscillation control constraints. The Taskforce has amended clause 3.15.1(C)(b) to include Oscillation Control Constraint parameters.

Supplementary Essential System Services Mechanism (SESSM) (section 3.15A)

Economic Regulation Authority veto (sections 3.15A.9 to 3.15A.12)

Based on stakeholder feedback, the Taskforce has removed the ability for the ERA to veto AEMO's trigger of the SESSM and deleted clauses 3.15A.9 through to 3.15A.12 of the Amending Rules. The ERA's veto of AEMO's trigger was contemplated to provide a checks-and-balances measure for the AEMO's trigger process. However, stakeholders that a process-based review may not add any value to the overall SESSM.

Participation (sections 3.15A.13 to 3.15A.18)

Stakeholder feedback sought clarity on clause 3.15A.16 regarding the offer obligations for designated Facilities.

The Taskforce has inserted an additional clause 3.15A.15A; where the ERA has designated a Facility pursuant to clause 3.15A.15, the Facility is required to offer up to the lesser of the SESSM

Service Quantity or the available accredited capability in excess of any existing SESSM Supplementary ESS Award for the applicable Frequency Co-optimised ESS.

The Taskforce has also added a new sub clause 3.15A.18A that requires each Facility that has been designated by the ERA pursuant to clause 3.15A.15 to make a SESSM Submission into the SESSM procurement process. The obligation of designated Facilities to submit a SESSM Submission was inadvertently missed in the previous amending rules.

Selection and approval (sections 3.15A.28 to 3.15A.37)

Stakeholders queried why in clause 3.15A.32 AEMO could not provide copies of the SESSM submissions as part of the information provided under clause 3.15A.31.

The Taskforce has amended clause 3.15A.32 to have AEMO provide all SESSM submissions to the ERA by default, alongside the outcome of AEMO's analysis.

Based on stakeholder feedback for clause 3.15A.37(b), the Taskforce has removed the ERA's ability to adjust the Availability Payment and/or Offer Cap for the SESSM Supplementary ESS Award, due to the complexity of using the SESSM Award to recover any over or underpayment. The ERA will retain the ability to apply civil penalties, which should provide sufficient incentive for Market Participants to discharge their SESSM Award obligations in good faith. The Taskforce has removed the original drafting of clause 3.15A.37(b).

Expressions of Interest for Essential System Services (section 3.15B)

Based on stakeholder feedback on clause 3.15B.3, the Taskforce has added a new subclause when advertising the call for expressions of interest (EOI) for ESS that AEMO must issue a Market Advisory. The Taskforce has also created a clause in the Amending Rules based on stakeholder feedback requiring AEMO to provide all EOI information collected to the ERA.

Short Term Energy Market (STEM) (in revised Chapter 6, sections 4.12. and 4.26)

Setting Reserve Capacity Obligations (section 4.12)

In response to stakeholder feedback, clause 4.12.1(a)(v) has been adjusted to reflect the revised Net Offer Shortfall calculation. The data will be assessed as at the Bilateral Submission Cutoff time. This results in consistency with the calculation of the Net Offer Shortfall in clause 4.26.2(d).

Stakeholder feedback on clause 4.12.1(c) questioned whether the Amending Rules need an explicit requirement for intermittent generators to make their capacity available.

The Taskforce will retain the existing approach whereby no explicit requirement is placed on intermittent generators, but performance in peak intervals is included in the assessment of capacity credits in future years.

Financial Implications of Failure to Satisfy Reserve Capacity Obligations (section 4.26)

The Taskforce has revised the Net Offer Shortfall calculation in clause 4.26.2 based on stakeholder feedback. The changes made include:

- comparing STEM volumes against outage values as at the Bilateral Submission Cutoff rather than the STEM Submission Cutoff;
- calculating real-time shortfalls at facility level;

- using the average of dispatch interval values as the trading interval value rather the minimum of dispatch interval values;
- removing Demand Side Programmes (DSPs) from the calculations to reflect an amended approach to participation in dispatch.

Stakeholders also expressed the view that including real-time offer calculations in clause 4.26.2 was not required as the requirement to lodge a forced outage was still in place.

The Taskforce notes that if a forced outage is lodged no refund would apply under this calculation; however, including consideration of offer shortfalls means the shortfall will immediately be reflected in settlement regardless of the timing or action of the outage lodgment.

Bilateral Submission Timetable and Process (section 6.2)

Stakeholders noted in feedback that clause 6.2.2A and other clauses in chapter 6 require AEMO to process data and notify the participant “as soon as practicable”, without a specified timeframe.

The Taskforce notes that these data processing activities are currently automated and completed in a matter of seconds. While a specified latest time is useful for manual processes with varying durations, the use of “as soon as practicable” for automated short duration processes is sufficient. The Taskforce has decided to not specify a timeframe for these clauses.

The Taskforce has also amended clause 6.2.3 in response to stakeholder feedback to clarify that AEMO will be required to display the effective Bilateral Submissions (which may be from Standing Submissions) and update these if data is cancelled.

The Taskforce has added a new clause 6.2.5 based on stakeholder feedback that includes an obligation for AEMO to notify the participant of its actions on receiving a request to cancel Bilateral Submission data. Where any Bilateral Submission data is cancelled in accordance with clause 6.2.4B, AEMO must, as soon as practicable:

- remove the cancelled Bilateral Submission data from the Bilateral Submission; and
- notify the Market Participant which cancelled the Bilateral Submission that the data has been removed from the Bilateral Submission for the Trading Interval of the Trading Day to which the cancelled Bilateral Submission data relates.

Information to Support the Bilateral and STEM Submission Process (section 6.3A)

In response to stakeholder feedback, for clause 6.3A.3(g), the Taskforce has determined that AEMO will be required to collate the load information from Pre-Dispatch Schedules into a single load forecast loss-adjusted to the reference node. The Taskforce has added another subclause 6.3A.3(h) to this effect.

In response to stakeholder feedback to clause 6.3A.4, AEMO will also be required to make this information in forming its STEM Submissions available as at the Bilateral Submission Cutoff for each day. The Taskforce has added another subclause 6.3A.5 to reflect this change.

The STEM Auction Timetable and Process (section 6.4)

Stakeholders requested that an explicit statement be included in clause 6.4.6B regarding what would happen if extending timeframes by two hours or less for the Bilateral Submission Cutoff, the STEM Submission Cutoff or the STEM Results Deadline did not provide sufficient time for AEMO to resolve data or system problems.

The Taskforce has added a new clause 6.4.6C in the Amending Rules to clarify the implicit understanding that the STEM would be suspended in such a circumstance.

Format of STEM Submission and Standing STEM Submission Data (section 6.6)

Stakeholder feedback regarding clauses 6.6.3 to 6.6.3F included concerns that it would be inefficient and impractical to require Market Participants to constantly monitor market information and continually update their market submissions to reflect the latest data. Stakeholders proposed:

- explicitly allowing submissions for periods further out than 1 to 2 days ahead of the STEM submission window to be in good faith if aligned with standing data;
- including obligations for the frequency of updates at different times ahead of real-time in the Rules rather than a market procedure; and
- participants no longer being required to update STEM submissions to reflect new data after the Bilateral Submission Cut-off.

In response to stakeholder feedback, the Taskforce has decided that the requirements to make STEM submissions in good faith will be removed from this set of Amending Rules and be considered in conjunction with other aspects of Market Power Mitigation in early-2021. Stakeholder feedback received on these clauses will be taken into consideration by the Taskforce.

Accordingly, new draft clauses 6.6.3, 6.6.3A, 6.6.3B, 6.6.3C, 6.6.3CA, 6.6.3CB, 6.6.3CD, 6.6.3E and 6.6.3F have been deleted from these Amending Rules.

Security Constrained Economic Dispatch (Chapter 7)

Central Dispatch Process (section 7.2)

Stakeholder feedback noted for clause 7.2.4 that while AEMO must be able to make emergency changes, the WEM Procedure change process should not be completely bypassed.

The Taskforce has amended clause 7.2.4(b) so that AEMO must, as soon as practicable, submit a Procedure Change Proposal for revisions to the WEM procedure referred to in clause 7.2.6.

Real-Time Market Submissions: Obligations and meaning (sections 7.4.1 to 7.4.14)

Following stakeholder feedback on clause 7.4.1, the Taskforce has amended the way DSPs are reflected in the Central Dispatch Process, amending clause 7.4.1 to require Real-Time Market Submissions from Scheduled Facilities, Semi-Scheduled Facilities and Interruptible Loads. Submissions are optional for Non-Scheduled Facilities.

Stakeholder feedback on clause 7.4.2 noted that many participants do not have a clear view of their likelihood for dispatch until the STEM auction. Stakeholder feedback also suggested that regular updates to submissions for changes in wind forecast a week out would not provide much value. It was also noted that including Standing Submissions in these requirements may defeat the purpose of Standing Submissions which are not intended to be updated frequently.

The Taskforce has amended clause 7.4.2 to clarify the matters that a Market Participant must reasonably endeavour to include in its Real-Time Market Submissions provided for each Dispatch Interval over different horizons such as the Week-Ahead Schedule Horizon and Pre-Dispatch Schedule Horizon.

The Taskforce has added clause 7.4.2A where in order to meet the requirements of clause 7.4.2, a Market Participant must make reasonable endeavours to take into account information available in Market Schedules published by AEMO, including estimates of cleared energy and Frequency Co-optimised ESS quantities.

In response to stakeholder feedback on clause 7.4.5, the Taskforce has amended this clause to ensure that the obligation is explicitly on a Market Participant, rather than on the Real-Time Market Submission.

Stakeholder feedback on clause 7.4.5(b) proposed a separate notification to Market Participants where the Reference Scenario for a Pre-Dispatch Interval projects a shortfall. AEMO will publish schedules with information on the presence or absence of a shortfall. The Taskforce considers that no additional notification is required, as Market Participants already have a general obligation to take published Pre-Dispatch Schedules into account in their Real-Time Market Submissions.

Some stakeholders requested a review of clause 7.4.7 and the use of the Unadjusted Intermittent Generation Forecast (UIGF) to ensure it operates as intended for all types of Semi-Scheduled Facilities, and clarity of whether it will be used for Non-Scheduled Generators. The Taskforce has reviewed the use of the UIGF, and replaced it with the Unadjusted Semi-Scheduled Injection Forecast (USSIF) which represents the maximum possible output of the facility. The USSIF may be provided to AEMO via a real-time SCADA feed.

The Taskforce has amended clause 7.4.7 to require Market Participants to ensure that the maximum possible Injection and Withdrawal is presented in Real-Time Market Submissions for Semi-Scheduled Facilities, rather than a Market Participant's own estimate of Facility dispatch levels. This is because Facility dispatch will be driven by the prices offered in Real-Time Market Submissions.

The Taskforce has removed clause 7.4.10 and replaced this with new clauses 7.4.14 to 7.4.14H which set out the new approach for DSPs. DSPs will submit a Withdrawal Profile which AEMO will use to create effective bids. This approach provides for more accurate assessment of the quantity of response actually available from DSPs, while still ensuring they are included in the Central Dispatch Process and providing flexibility for future evolution of demand side resources participation in central dispatch.

Stakeholder feedback for clause 7.4.12(b) suggested it could be possible for the relevant Interruptible Loads and DSPs to be registered by different Market Participants. The Taskforce notes that it will be the responsibility of the Interruptible Load Market Participant to monitor schedules for dispatch of an overlapping DSP. As such, the Taskforce made no change to clause 7.4.12(b).

Real-Time Market Submissions: Timing (section 7.4)

Stakeholder feedback on clause 7.4.26 proposed that there should be a minimum notice period for changes to Gate Closure. The Taskforce notes that if a significant system security situation means AEMO needs more time between Gate Closure and Dispatch, it would be dangerous to wait for several months before implementing such a change, but that this is not the case where the Gate Closure is being reduced.

The Taskforce has added clause 7.4.26A to address this stakeholder feedback. The Taskforce determined that where a revised Gate Closure is closer to the start of the Dispatch Interval than the existing Gate Closure, AEMO must give at least 3 months' notice of the revision.

In responding to stakeholder feedback for clause 7.4.28, the Taskforce notes that updates inside Gate Closure should adjust quantities only, not prices. The Taskforce has amended clause 7.4.28 to this effect.

Stakeholder feedback requested greater clarity for clause 7.4.30 on specific obligations to update a Real-Time Market Submission for different events and at different timeframes. This greater specificity has been reflected by the Taskforce in clause 7.4.2 and a new clause 7.4.30. This means there is no need for AEMO to document these matters in a WEM Procedure, though the ERA offer construction guideline may address these circumstances in more detail. The relevant rules for the ERA's offer construction guidelines will be set out in the Market Power Mitigation workstream.

Real-Time Market Submissions – Format (section 7.4)

Based on stakeholder feedback the Taskforce has revised the approach to DSP's and will not use explicit Dispatch Inflexibility Profiles as were referenced in clauses 7.4.37 to 7.4.39, 7.4.41 and 7.6.17.

Real-Time Market Submissions – Construction (section 7.4)

In providing feedback, stakeholders requested that clauses 7.4.44 and 7.4.45 be revisited as part of the Taskforce's consideration of market power mitigation for the new WEM. The Taskforce has deleted these clauses and has noted these to be included in its consideration of market power mitigation in early-2021.

In response to stakeholder feedback on clause 7.4.46, the Taskforce has amended this clause to clarify that AEMO must calculate the Estimated Enablement Losses for a Registered Facility and provide to Market Participants as a piece of information to consider when preparing Real-Time Market Submissions. The Taskforce notes that clause 7.4.46 was intended to enable Market Participants by providing additional information, rather than bind them to a specific calculation.

Central Dispatch (section 7.6)

Stakeholders noted in submissions that with a move to linear ramping, it may not be necessary to include a ramp rate with a dispatch instruction under clause 7.6.8(g), as the ramp rate will just be a function of the current position and the dispatch target. While this will almost always be the case, AEMO may still need to direct a participant to ramp with other than a linear profile when issuing a Dispatch Instruction as part of a direction.

The Taskforce has decided that this subclause will be retained as an optional parameter. The Taskforce has replaced clause 7.6.8(g) in the original drafting with new clause 7.6.8A.

Tiebreaking (section 7.6)

Stakeholders expressed the view that DSPs would normally be dispatched as a last resort. Clause 7.6.23 is about breaking ties between DSPs and other Registered Facilities. If both are offered at the price cap, the Taskforce decided it was appropriate to retain the flexibility of the other Registered facility, for example a battery discharging, rather than the less flexible DSP.

Stakeholder feedback on clause 7.6.26 also noted that in addition to historic costs of binding Oscillation Control Constraints, potential future costs should also be considered. The Taskforce agrees; however, forecasting these costs may potentially require time and effort not commensurate with the anticipated level of benefit. The reference to historic costs will therefore

provide an explicit bound to the scope of reviewing the costs of binding Oscillation Control Constraints.

The Taskforce has decided that no further change is needed to clause 7.6.23 or 7.6.26.

Compliance with Dispatch Instructions (section 7.10)

Stakeholders noted in clause 7.10.1 the need to clarify that compliance is with the sent-out Dispatch Target or Dispatch Cap, even if a facility has opted to receive Dispatch Instructions on an as-generated basis. The Taskforce has amended clause 7.10.1 so a Market Participant must comply with the sent-out Dispatch Target or the sent-out Dispatch Cap.

Stakeholders requested that in clause 7.10.2(b), ramp rate-adjusted be better defined, and that the different compliance obligations on Dispatch Caps be made explicit. The Taskforce has amended clause 7.10.2(b) to separate the obligations for Dispatch Targets and Dispatch Caps.

For clause 7.10.2(e), stakeholder feedback noted that a Fast Start Facility responding according to its inflexibility profile should also be exempt from compliance with dispatch instructions that don't match the fast start profile. The Taskforce has added a new subclause to this effect.

Price Determination (section 7.11A)

Stakeholder feedback noted in clause 7.11A.1(i) that an ESS shortfall could lead to pricing that reflects scarcity. The Taskforce notes while this clause will be revisited in the future work on market power mitigation in the context of the need for price or offer caps for energy and ESS, the clause has been amended to ensure that the desired effect is delivered.

The Taskforce has amended clause 7.11A.1(i) to set the shortfall price for a Frequency Co-optimised ESS to the difference between the Energy Offer Price Ceiling and the Energy Offer Price Floor. This price represents the maximum opportunity cost of holding reserve on a facility offering energy at the Energy Offer Price Floor when the replacement energy must come from a facility offering energy at the Energy Offer Price Ceiling.

Corrections to Price Determinations and Intervention Pricing (section 7.11C)

Stakeholder feedback noted that there was no clause requiring AEMO to make a determination of whether a Dispatch Interval was an Affected Dispatch Interval or not.

The Taskforce has added a new clause 7.11C.1A where AEMO must use the WEM Procedure developed under clause 7.11.C.1 to determine whether each Dispatch Interval is an Affected Dispatch Interval.

Industry feedback interpreted clause 7.11C.10 as referring to the time after the interval by which AEMO had to set the price. The Taskforce notes the intent of Clause 7.11C.10 is to refer to which Dispatch Intervals AEMO must use the Intervention Pricing for. Clause 7.13.1x3 requires market clearing prices to be published within five minutes of the Dispatch Algorithm being run. These can then be amended up to 30 minutes later for affected dispatch intervals.

The Taskforce has amended clause 7.11C.10 for clarity.

Appendix 1: Structure of Net Settlement Equations

